TrigonometryExercise5 Answers for No.9124

$$Ans1=\begin{bmatrix} .1=\left(\mathrm{arcSin}\left(-\frac{\sqrt{2}}{2}\right)=-\frac{\pi}{4}\right) & .2=(\mathrm{arcCos}(1)=0) & .3=\left(\mathrm{arcTan}\left(\frac{\sqrt{3}}{3}\right)=\frac{\pi}{6}\right)\\ .4=\left(\mathrm{arcCos}\left(-\frac{\sqrt{3}}{2}\right)=\frac{5\pi}{6}\right) & .5=\left(\mathrm{arcCos}\left(\frac{\sqrt{3}}{2}\right)=\frac{\pi}{6}\right) & .6=\left(\mathrm{arcTan}(-\sqrt{3})=-\frac{\pi}{3}\right)\\ .7=(\mathrm{arcSin}(0)=0) & .8=(\mathrm{arcCos}(\sqrt{2})=\mathit{undefined}) & .9=\left(\mathrm{arcSin}\left(\frac{\sqrt{2}}{2}\right)=\frac{\pi}{4}\right)\end{bmatrix},\ ,\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans2=\begin{bmatrix} .1=\left(\mathrm{Sin}\left(\mathrm{arcSin}\left(\frac{1}{2}\right)\right)=\frac{1}{2}\right) & .2=\left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{2}\right)\right)=\sqrt{3}\right) & .3=\left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{\sqrt{3}}{2}\right)\right)=\frac{1}{2}\right)\\ .4=\left(\mathrm{Cos}(\mathrm{arcTan}(-\sqrt{3}))=\frac{1}{2}\right) & .5=\left(\mathrm{arcTan}\left(\mathrm{Tan}\left(-\frac{\pi}{6}\right)\right)=-\frac{\pi}{6}\right) & .6=\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{\pi}{3}\right)\right)=\frac{\pi}{6}\right)\\ .7=\left(\mathrm{arcSin}\left(\mathrm{Sin}\left(-\frac{13\pi}{6}\right)\right)=-\frac{\pi}{6}\right) & .8=\left(\mathrm{arcCos}\left(\mathrm{Cos}\left(\frac{4\pi}{3}\right)\right)=\frac{2\pi}{3}\right) & .9=\left(\mathrm{arcTan}\left(\mathrm{Tan}\left(-\frac{11\pi}{6}\right)\right)=\frac{\pi}{6}\right)\\ .10=\left(\mathrm{Cot}\left(\mathrm{arcCos}\left(-\frac{\sqrt{2}}{2}\right)\right)=-1\right) & .11=\left(\mathrm{Sec}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{13\pi}{6}\right)\right)\right)=2\right) & .12=\left(\mathrm{ArcSin}\left(\mathrm{Cos}\left(\mathrm{ArcSin}\left(\frac{-1}{2}\right)\right)\right)=\frac{\pi}{3}\right)\end{bmatrix},\ ,\begin{bmatrix}:)\\:(\\ \begin{bmatrix}\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}\end{bmatrix}\\:)\\:(\end{bmatrix}$$

$$Ans3=\begin{bmatrix} .1=\left(\mathrm{Cos}\left(\mathrm{arcTan}\left(\frac{5}{6}\right)\right)=\frac{6\sqrt{61}}{61}\right) & .2=\left(\mathrm{Csc}\left(\mathrm{arcSin}\left(\frac{2}{5}\right)\right)=\frac{5}{2}\right) & .3=\left(\mathrm{Sec}\left(\mathrm{arcTan}\left(\frac{-7}{3}\right)\right)=\frac{\sqrt{58}}{3}\right)\\ .4=\left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{5}{7}\right)\right)=\frac{2\sqrt{6}}{7}\right) & .5=\left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{-1}{5}\right)\right)=-2\sqrt{6}\right) & .6=\left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{\sqrt{5}}{9}\right)\right)=\frac{2\sqrt{19}}{9}\right)\\ .7=\left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{-5}{7}\right)\right)=-\frac{5\sqrt{6}}{12}\right) & .8=\left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{\sqrt{5}}{4}\right)\right)=\frac{\sqrt{5}\sqrt{21}}{21}\right) & .9=\left(\mathrm{Cot}\left(\mathrm{arcCos}\left(-\frac{\sqrt{5}}{7}\right)\right)=-\frac{\sqrt{5}\sqrt{11}}{22}\right)\end{bmatrix},\ ,\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans4=\begin{bmatrix} .1=\left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{1}{2}\right)+\mathrm{arcSin}\left(\frac{3}{7}\right)\right)=\frac{\sqrt{3}\sqrt{10}}{7}+\frac{3}{14}\right) & .2=\left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{2}{7}\right)+\mathrm{arcSin}\left(\frac{-1}{2}\right)\right)=\frac{\sqrt{3}}{7}+\frac{3\sqrt{5}}{14}\right)\\ .3=\left(\mathrm{Sin}\left(2\,\mathrm{arcSin}\left(\frac{1}{2}\right)\right)=\frac{\sqrt{3}}{2}\right) & .4=\left(\cos\left(2\,\mathrm{arcCos}\left(\frac{3}{7}\right)\right)=\frac{-31}{49}\right)\\ .5=\left(\mathrm{arcTan}\left(\mathrm{Cos}(10\pi)+\mathrm{Sin}\left(-\frac{17\pi}{2}\right)\right)=0\right) & .6=\left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{17\pi}{6}\right)\right)+\mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{7\pi}{3}\right)\right)\right)=-\sqrt{3}\right)\end{bmatrix},\ ,\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans5=2\,\alpha\sqrt{1-\alpha^2},\ ,\begin{bmatrix}M\\U\\T\end{bmatrix}$$

$$Ans6=2\,\alpha^2-1,\ ,\begin{bmatrix}M\\U\\T\end{bmatrix}$$

TrigonometryExercise5 Answers for No.9197

$$Ans1=\begin{bmatrix} .1=\left(\mathrm{arcCos}\left(-\frac{\sqrt{2}}{2}\right)=\frac{3\pi}{4}\right) & .2=\left(\mathrm{arcTan}(\sqrt{3})=\frac{\pi}{3}\right) & .3=\left(\mathrm{arcCos}\left(\frac{1}{2}\right)=\frac{\pi}{3}\right)\\ .4=\left(\mathrm{arcSin}\left(\frac{-1}{2}\right)=-\frac{\pi}{6}\right) & .5=\left(\mathrm{arcSin}\left(\frac{\sqrt{2}}{2}\right)=\frac{\pi}{4}\right) & .6=(\mathrm{arcSin}(0)=0)\\ .7=(\mathrm{arcCos}(-1)=\pi) & .8=(\mathrm{arcCos}(-2)=\mathit{undefined}) & .9=(\mathrm{arcTan}(0)=0)\end{bmatrix},\ ,\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans2=\begin{bmatrix} .1=(\mathrm{Tan}(\mathrm{arcTan}(1))=1) & .2=\left(\mathrm{Sin}(\mathrm{arcTan}(-1))=-\frac{\sqrt{2}}{2}\right) & .3=\left(\mathrm{Cos}\left(\mathrm{arcTan}\left(-\frac{\sqrt{3}}{3}\right)\right)=\frac{\sqrt{3}}{2}\right)\\ .4=\left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{1}{2}\right)\right)=\sqrt{3}\right) & .5=\left(\mathrm{arcSin}\left(\mathrm{Sin}\left(\frac{\pi}{4}\right)\right)=\frac{\pi}{4}\right) & .6=\left(\mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{\pi}{4}\right)\right)=\frac{\pi}{4}\right)\\ .7=\left(\mathrm{arcSin}\left(\mathrm{Sin}\left(-\frac{13\pi}{6}\right)\right)=-\frac{\pi}{6}\right) & .8=\left(\mathrm{arcCos}\left(\mathrm{Cos}\left(-\frac{2\pi}{3}\right)\right)=\frac{2\pi}{3}\right) & .9=\left(\mathrm{arcTan}\left(\mathrm{Tan}\left(-\frac{13\pi}{6}\right)\right)=-\frac{\pi}{6}\right)\\ .10=\left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\frac{\sqrt{2}}{2}\right)\right)=1\right) & .11=\left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{5\pi}{6}\right)\right)\right)=\frac{2\sqrt{3}}{3}\right) & .12=\left(\mathrm{ArcSin}\left(\mathrm{Cos}\left(\mathrm{ArcSin}\left(\frac{\sqrt{2}}{2}\right)\right)\right)=\frac{\pi}{4}\right)\end{bmatrix},\ ,\begin{bmatrix}:)\\:(\\ \begin{bmatrix}\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}\end{bmatrix}\\:)\\:(\end{bmatrix}$$

$$Ans3=\begin{bmatrix} .1=\left(\mathrm{Sec}\left(\mathrm{arcSin}\left(\frac{-1}{2}\right)\right)=\frac{2\sqrt{3}}{3}\right) & .2=\left(\mathrm{Cos}\left(\mathrm{arcSin}\left(-\frac{\sqrt{3}}{5}\right)\right)=\frac{\sqrt{22}}{5}\right) & .3=\left(\mathrm{Cot}\left(\mathrm{arcTan}\left(\frac{7}{2}\right)\right)=\frac{2}{7}\right)\\ .4=\left(\mathrm{Sin}\left(\mathrm{arcCos}\left(-\frac{\sqrt{7}}{10}\right)\right)=\frac{\sqrt{93}}{10}\right) & .5=\left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{-1}{5}\right)\right)=-2\sqrt{6}\right) & .6=\left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{4}{5}\right)\right)=\frac{4}{3}\right)\\ .7=\left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{\sqrt{7}}{5}\right)\right)=\frac{\sqrt{7}\sqrt{2}}{8}\right) & .8=\left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\frac{5}{6}\right)\right)=\frac{6\sqrt{11}}{11}\right) & .9=\left(\mathrm{Cos}(\mathrm{arcTan}(-1))=\frac{\sqrt{2}}{2}\right)\end{bmatrix},\ ,\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans4=\begin{bmatrix} .1=\left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{1}{5}\right)+\mathrm{arcSin}\left(\frac{-1}{2}\right)\right)=\frac{\sqrt{6}\sqrt{3}}{5}-\frac{1}{10}\right) & .2=\left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{3}{7}\right)+\mathrm{arcSin}\left(\frac{2}{5}\right)\right)=\frac{3\sqrt{21}}{35}-\frac{4\sqrt{10}}{35}\right)\\ .3=\left(\mathrm{Sin}\left(2\,\mathrm{arcCos}\left(\frac{3}{4}\right)\right)=\frac{3\sqrt{7}}{8}\right) & .4=\left(\cos\left(2\,\mathrm{arcSin}\left(\frac{1}{2}\right)\right)=\frac{1}{2}\right)\\ .5=\left(\mathrm{arcTan}(\mathrm{Cos}(3\pi)+\mathrm{Sin}(5\pi))=-\frac{\pi}{4}\right) & .6=\left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{7\pi}{6}\right)\right)+\mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{13\pi}{3}\right)\right)\right)=-\sqrt{3}\right)\end{bmatrix},\ ,\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans5=2\,\alpha\sqrt{1-\alpha^2},\ ,\begin{bmatrix}M\\U\\T\end{bmatrix}$$

$$Ans6=1-2\,\alpha^2,\ ,\begin{bmatrix}M\\U\\T\end{bmatrix}$$

TrigonometryExercise5 Answers for No.9252

$$Ans1 = \begin{bmatrix} .1 = \left(\mathrm{arcTan}\left(\frac{\sqrt{3}}{3}\right) = \frac{\pi}{6}\right) & .2 = \left(\mathrm{arcSin}\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) & .3 = (\mathrm{arcSin}(0) = 0) \\ .4 = \left(\mathrm{arcCos}\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) & .5 = (\mathrm{arcCos}(1) = 0) & .6 = \left(\mathrm{arcTan}(-\sqrt{3}) = -\frac{\pi}{3}\right) \\ .7 = \left(\mathrm{arcCos}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .8 = (\mathrm{arcSin}(-7) = \mathit{undefined}) & .9 = \left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcSin}\left(\frac{-1}{2}\right)\right) = \frac{-1}{2}\right) & .2 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) & .3 = \left(\mathrm{Sin}(\mathrm{arcTan}(-\sqrt{3})) = -\frac{\sqrt{3}}{2}\right) \\ .4 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\mathrm{arcCos}\left(\mathrm{Cos}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) \\ .7 = \left(\mathrm{arcSin}\left(\mathrm{Sin}\left(\frac{11\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\mathrm{arcCos}\left(\mathrm{Cos}\left(-\frac{2\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(-\frac{5\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\mathrm{Cot}\left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) & .11 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{13\pi}{6}\right)\right)\right) = -\sqrt{3}\right) & .12 = \left(\mathrm{ArcSin}\left(\mathrm{Cos}\left(\mathrm{ArcSin}\left(-\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, \quad , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Sec}\left(\mathrm{arcTan}\left(\frac{\sqrt{7}}{5}\right)\right) = \frac{4\sqrt{2}}{5}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(-\frac{\sqrt{2}}{5}\right)\right) = \frac{\sqrt{23}}{5}\right) & .3 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{\sqrt{3}}{8}\right)\right) = \frac{\sqrt{61}}{8}\right) \\ .4 = \left(\mathrm{Cot}\left(\mathrm{arcSin}\left(\frac{1}{3}\right)\right) = 2\sqrt{2}\right) & .5 = \left(\mathrm{Cos}(\mathrm{arcTan}(1)) = \frac{\sqrt{2}}{2}\right) & .6 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{-3}{8}\right)\right) = -\frac{\sqrt{55}}{3}\right) \\ .7 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{-2}{7}\right)\right) = -\frac{2\sqrt{5}}{15}\right) & .8 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\frac{4}{9}\right)\right) = \frac{9\sqrt{65}}{65}\right) & .9 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{-2}{3}\right)\right) = -\frac{2\sqrt{13}}{13}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{1}{2}\right) + \mathrm{arcSin}\left(\frac{4}{7}\right)\right) = \frac{\sqrt{3}\sqrt{33}}{14} + \frac{2}{7}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{2}{7}\right) + \mathrm{arcSin}\left(\frac{-1}{3}\right)\right) = \frac{4\sqrt{2}}{21} + \frac{\sqrt{5}}{7}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcCos}\left(\frac{5}{8}\right)\right) = \frac{5\sqrt{39}}{32}\right) & .4 = \left(\cos\left(2\,\mathrm{arcCos}\left(\frac{5}{6}\right)\right) = \frac{7}{18}\right) \\ .5 = \left(\mathrm{arcTan}\left(\mathrm{Cos}\left(\frac{\pi}{2}\right) + \mathrm{Sin}\left(-\frac{11\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\mathrm{Sec}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{17\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{13\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\,\alpha^2, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.9312

$$Ans1 = \begin{bmatrix} .1 = \left(\mathrm{arcSin}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .2 = \left(\mathrm{arcTan}(1) = \frac{\pi}{4}\right) & .3 = \left(\mathrm{arcCos}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) \\ .4 = (\mathrm{arcCos}(1) = 0) & .5 = \left(\mathrm{arcSin}\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) & .6 = (\mathrm{arcSin}(3) = \mathit{undefined}) \\ .7 = (\mathrm{arcSin}(0) = 0) & .8 = \left(\mathrm{arcTan}\left(-\frac{\sqrt{3}}{3}\right) = -\frac{\pi}{6}\right) & .9 = \left(\mathrm{arcCos}\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcSin}\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .3 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(-\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) \\ .4 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{1}{2}\right)\right) = \sqrt{3}\right) & .5 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{\pi}{6}\right)\right) = \frac{2\pi}{3}\right) \\ .7 = \left(\mathrm{arcSin}\left(\mathrm{Sin}\left(-\frac{5\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\mathrm{arcCos}\left(\mathrm{Cos}\left(-\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) & .9 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(\frac{5\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\mathrm{Csc}\left(\mathrm{arcSin}\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{2\sqrt{3}}{3}\right) & .11 = \left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{13\pi}{6}\right)\right)\right) = \frac{\sqrt{3}}{3}\right) & .12 = \left(\mathrm{ArcSin}\left(\mathrm{Cos}\left(\mathrm{ArcSin}\left(\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \quad , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) & .2 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(-\frac{\sqrt{2}}{3}\right)\right) = \frac{3\sqrt{7}}{7}\right) & .3 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{\sqrt{5}}{6}\right)\right) = \frac{\sqrt{31}}{6}\right) \\ .4 = \left(\mathrm{Sec}\left(\mathrm{arcTan}\left(\frac{4}{7}\right)\right) = \frac{\sqrt{65}}{7}\right) & .5 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{4}{5}\right)\right) = \frac{3}{5}\right) & .6 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{-6}{5}\right)\right) = -\frac{6\sqrt{61}}{61}\right) \\ .7 = \left(\mathrm{Cot}\left(\mathrm{arcSin}\left(\frac{-1}{2}\right)\right) = -\sqrt{3}\right) & .8 = \left(\mathrm{Cos}\left(\mathrm{arcTan}\left(\frac{\sqrt{6}}{5}\right)\right) = \frac{5\sqrt{31}}{31}\right) & .9 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{-2}{3}\right)\right) = -\frac{\sqrt{5}}{2}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{5}{9}\right) + \mathrm{arcSin}\left(\frac{-4}{5}\right)\right) = \frac{2\sqrt{14}}{15} - \frac{4}{9}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{1}{5}\right) + \mathrm{arcSin}\left(\frac{2}{3}\right)\right) = \frac{\sqrt{5}}{15} - \frac{4\sqrt{6}}{15}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcSin}\left(\frac{1}{6}\right)\right) = \frac{\sqrt{35}}{18}\right) & .4 = \left(\cos\left(2\,\mathrm{arcSin}\left(\frac{5}{8}\right)\right) = \frac{7}{32}\right) \\ .5 = \left(\mathrm{arcTan}(\mathrm{Cos}(3\pi) + \mathrm{Sin}(\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{7\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{8\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\,\alpha^2, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.9397

$$Ans1 = \begin{bmatrix} .1 = (\arccos(-1) = \pi) & .2 = (\arcsin(0) = 0) & .3 = \left(\arcsin\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) \\ .4 = \left(\arccos\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .5 = (\arcsin(2) = undefined) & .6 = \left(\arctan(1) = \frac{\pi}{4}\right) \\ .7 = \left(\arctan\left(-\frac{\sqrt{3}}{3}\right) = -\frac{\pi}{6}\right) & .8 = \left(\arccos\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .9 = \left(\arcsin\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}}{2}\right) & .2 = \left(\tan\left(\arccos\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) & .3 = \left(\cos(\arctan(\sqrt{3})) = \frac{1}{2}\right) \\ .4 = \left(\sin\left(\arccos\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\arccos\left(\cos\left(\frac{5\pi}{6}\right)\right) = \frac{5\pi}{6}\right) & .6 = \left(\arccos\left(\sin\left(\frac{\pi}{3}\right)\right) = \frac{\pi}{6}\right) \\ .7 = \left(\arcsin\left(\sin\left(\frac{11\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(-\frac{5\pi}{6}\right)\right) = \frac{5\pi}{6}\right) & .9 = \left(\arctan\left(\tan\left(\frac{5\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\csc(\arctan(-\sqrt{3})) = -\frac{2\sqrt{3}}{3}\right) & .11 = \left(\cot\left(\arcsin\left(\cos\left(\frac{13\pi}{3}\right)\right)\right) = \sqrt{3}\right) & .12 = \left(\arccos\left(\sin\left(\arccos\left(\frac{1}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \ , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\cot\left(\arcsin\left(\frac{5}{9}\right)\right) = \frac{2\sqrt{14}}{5}\right) & .2 = \left(\sin\left(\arccos\left(\frac{\sqrt{2}}{5}\right)\right) = \frac{\sqrt{23}}{5}\right) & .3 = \left(\sec\left(\arccos\left(\frac{-3}{5}\right)\right) = \frac{-5}{3}\right) \\ .4 = \left(\tan\left(\arcsin\left(\frac{\sqrt{5}}{9}\right)\right) = \frac{\sqrt{5}\sqrt{19}}{38}\right) & .5 = \left(\tan\left(\arccos\left(\frac{5}{9}\right)\right) = \frac{2\sqrt{14}}{5}\right) & .6 = \left(\csc\left(\arctan\left(\frac{-5}{2}\right)\right) = -\frac{\sqrt{29}}{5}\right) \\ .7 = \left(\sin\left(\arctan\left(\frac{7}{5}\right)\right) = \frac{7\sqrt{74}}{74}\right) & .8 = \left(\cos\left(\arcsin\left(\frac{-1}{5}\right)\right) = \frac{2\sqrt{6}}{5}\right) & .9 = \left(\cos\left(\arctan\left(\frac{\sqrt{2}}{7}\right)\right) = \frac{7\sqrt{51}}{51}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{5}{7}\right) + \arcsin\left(\frac{2}{5}\right)\right) = \frac{2\sqrt{21}\sqrt{6}}{35} + \frac{2}{7}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{-2}{5}\right)\right) = \frac{\sqrt{3}}{5} + \frac{\sqrt{21}}{10}\right) \\ .3 = \left(\sin\left(2\arcsin\left(\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{8}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{2}{3}\right)\right) = \frac{1}{9}\right) \\ .5 = \left(\arctan\left(\cos(\pi) + \sin\left(-\frac{3\pi}{2}\right)\right) = 0\right) & .6 = \left(\cot\left(\arccos\left(\sin\left(-\frac{11\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{10\pi}{3}\right)\right)\right) = \sqrt{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\,\alpha^2 - 1, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.9449

$$Ans1 = \begin{bmatrix} .1 = \left(\arccos\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) & .2 = \left(\arctan(\sqrt{3}) = \frac{\pi}{3}\right) & .3 = \left(\arcsin\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \\ .4 = \left(\arcsin\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) & .5 = (\arccos(1) = 0) & .6 = \left(\arccos\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) \\ .7 = \left(\arcsin(-1) = -\frac{\pi}{2}\right) & .8 = \left(\arctan(-1) = -\frac{\pi}{4}\right) & .9 = (\arcsin(\sqrt{2}) = undefined) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\sin\left(\arcsin\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) & .2 = \left(\tan\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)\right) = 1\right) & .3 = \left(\cos\left(\arcsin\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .4 = \left(\sin\left(\arccos\left(-\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\arccos\left(\cos\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\arcsin\left(\cos\left(\frac{3\pi}{4}\right)\right) = -\frac{\pi}{4}\right) \\ .7 = \left(\arcsin\left(\sin\left(-\frac{7\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(-\frac{\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\arctan\left(\tan\left(-\frac{17\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\csc(\arctan(\sqrt{3})) = \frac{2\sqrt{3}}{3}\right) & .11 = \left(\sec\left(\arccos\left(\sin\left(\frac{13\pi}{6}\right)\right)\right) = 2\right) & .12 = \left(\arcsin\left(\cos\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \ , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\tan\left(\arccos\left(\frac{5}{9}\right)\right) = \frac{2\sqrt{14}}{5}\right) & .2 = \left(\sec\left(\arccos\left(\frac{-5}{6}\right)\right) = \frac{-6}{5}\right) & .3 = \left(\sin(\arctan(\sqrt{6})) = \frac{\sqrt{6}\sqrt{7}}{7}\right) \\ .4 = \left(\cot\left(\arctan\left(\frac{3}{4}\right)\right) = \frac{4}{3}\right) & .5 = \left(\cos\left(\arcsin\left(\frac{\sqrt{2}}{3}\right)\right) = \frac{\sqrt{7}}{3}\right) & .6 = \left(\csc\left(\arcsin\left(\frac{-4}{9}\right)\right) = \frac{-9}{4}\right) \\ .7 = \left(\cos\left(\arctan\left(\frac{-1}{7}\right)\right) = \frac{7\sqrt{2}}{10}\right) & .8 = \left(\tan\left(\arcsin\left(\frac{4}{9}\right)\right) = \frac{4\sqrt{65}}{65}\right) & .9 = \left(\sin\left(\arccos\left(-\frac{\sqrt{5}}{7}\right)\right) = \frac{2\sqrt{11}}{7}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{2}{5}\right) + \arcsin\left(\frac{1}{2}\right)\right) = \frac{\sqrt{21}\sqrt{3}}{10} + \frac{1}{5}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{-4}{9}\right)\right) = \frac{\sqrt{65}}{18} + \frac{2\sqrt{3}}{9}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{3}{7}\right)\right) = \frac{12\sqrt{10}}{49}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{1}{4}\right)\right) = \frac{-7}{8}\right) \\ .5 = \left(\arctan\left(\cos\left(\frac{7\pi}{2}\right) + \sin\left(-\frac{11\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\sec\left(\arccos\left(\sin\left(-\frac{13\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{13\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\,\alpha^2 - 1, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.9562

$$Ans1 = \begin{bmatrix} .1 = (\arcSin(0) = 0) & .2 = \left(\arcTan\left(\frac{\sqrt{3}}{3}\right) = \frac{\pi}{6}\right) & .3 = (\arcCos(-1) = \pi) \\ .4 = \left(\arcTan(-1) = -\frac{\pi}{4}\right) & .5 = \left(\arcSin\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .6 = (\arcSin(2) = \mathit{undefined}) \\ .7 = \left(\arcCos\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .8 = \left(\arcCos\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}\right) & .9 = \left(\arcSin\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\arcCos\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}}{2}\right) & .2 = \left(\mathrm{Tan}\left(\arcCos\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) & .3 = \left(\mathrm{Sin}\left(\arcCos\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .4 = \left(\mathrm{Cos}\left(\arcSin\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\arcSin\left(\mathrm{Sin}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\arcSin\left(\mathrm{Cos}\left(\frac{2\pi}{3}\right)\right) = -\frac{\pi}{6}\right) \\ .7 = \left(\arcSin\left(\mathrm{Sin}\left(\frac{17\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arcCos\left(\mathrm{Cos}\left(\frac{8\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\arcTan\left(\mathrm{Tan}\left(\frac{7\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\mathrm{Csc}\left(\arcCos\left(-\frac{\sqrt{2}}{2}\right)\right) = \sqrt{2}\right) & .11 = \left(\mathrm{Csc}\left(\arcCos\left(\mathrm{Sin}\left(-\frac{7\pi}{6}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) & .12 = \left(\mathrm{ArcCos}\left(\mathrm{Sin}\left(\mathrm{ArcCos}\left(\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Cos}\left(\arcSin\left(\frac{-3}{8}\right)\right) = \frac{\sqrt{55}}{8}\right) & .2 = \left(\mathrm{Tan}\left(\arcCos\left(-\frac{\sqrt{7}}{11}\right)\right) = -\frac{\sqrt{114}\sqrt{7}}{7}\right) & .3 = \left(\mathrm{Cos}\left(\arcTan\left(\frac{-2}{3}\right)\right) = \frac{3\sqrt{13}}{13}\right) \\ .4 = \left(\mathrm{Sin}(\arcTan(2)) = \frac{2\sqrt{5}}{5}\right) & .5 = \left(\mathrm{Tan}\left(\arcSin\left(\frac{5}{9}\right)\right) = \frac{5\sqrt{14}}{28}\right) & .6 = \left(\mathrm{Csc}\left(\arcSin\left(\frac{\sqrt{7}}{9}\right)\right) = \frac{9\sqrt{7}}{7}\right) \\ .7 = \left(\mathrm{Sec}\left(\arcCos\left(\frac{-1}{2}\right)\right) = -2\right) & .8 = \left(\mathrm{Sin}\left(\arcCos\left(\frac{2}{7}\right)\right) = \frac{3\sqrt{5}}{7}\right) & .9 = \left(\mathrm{Cot}\left(\arcTan\left(\frac{\sqrt{3}}{7}\right)\right) = \frac{7\sqrt{3}}{3}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arcCos\left(\frac{1}{2}\right) + \arcSin\left(\frac{-4}{5}\right)\right) = \frac{3\sqrt{3}}{10} - \frac{2}{5}\right) & .2 = \left(\mathrm{Cos}\left(\arcCos\left(\frac{4}{5}\right) + \arcSin\left(\frac{2}{3}\right)\right) = \frac{4\sqrt{5}}{15} - \frac{2}{5}\right) \\ .3 = \left(\mathrm{Sin}\left(2\arcSin\left(\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{8}\right) & .4 = \left(\cos\left(2\arcSin\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) \\ .5 = \left(\arcTan\left(\mathrm{Cos}(6\pi) + \mathrm{Sin}\left(\frac{19\pi}{2}\right)\right) = 0\right) & .6 = \left(\mathrm{Sec}\left(\arcCos\left(\mathrm{Sin}\left(-\frac{13\pi}{6}\right)\right) + \arcSin\left(\mathrm{Cos}\left(\frac{5\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\,\alpha^2 - 1, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.9721

$$Ans1 = \begin{bmatrix} .1 = \left(\arcCos\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}\right) & .2 = \left(\arcTan(1) = \frac{\pi}{4}\right) & .3 = \left(\arcSin(-1) = -\frac{\pi}{2}\right) \\ .4 = (\arcCos(3) = \mathit{undefined}) & .5 = (\arcTan(0) = 0) & .6 = (\arcCos(1) = 0) \\ .7 = \left(\arcSin\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) & .8 = \left(\arcCos\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .9 = \left(\arcSin\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\arcCos\left(-\frac{\sqrt{2}}{2}\right)\right) = -\frac{\sqrt{2}}{2}\right) & .2 = \left(\mathrm{Tan}\left(\arcCos\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}}{3}\right) & .3 = \left(\mathrm{Sin}\left(\arcTan\left(-\frac{\sqrt{3}}{3}\right)\right) = \frac{-1}{2}\right) \\ .4 = \left(\mathrm{Cos}\left(\arcSin\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\arcTan\left(\mathrm{Tan}\left(-\frac{\pi}{4}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\arcSin\left(\mathrm{Cos}\left(\frac{\pi}{3}\right)\right) = \frac{\pi}{6}\right) \\ .7 = \left(\arcSin\left(\mathrm{Sin}\left(\frac{5\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arcCos\left(\mathrm{Cos}\left(\frac{4\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\arcTan\left(\mathrm{Tan}\left(-\frac{17\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = (\mathrm{Sec}(\arcTan(-\sqrt{3})) = 2) & .11 = \left(\mathrm{Sec}\left(\arcSin\left(\mathrm{Cos}\left(\frac{11\pi}{3}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) & .12 = \left(\mathrm{ArcSin}\left(\mathrm{Cos}\left(\mathrm{ArcSin}\left(\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Tan}\left(\arcSin\left(-\frac{\sqrt{7}}{8}\right)\right) = -\frac{\sqrt{7}\sqrt{57}}{57}\right) & .2 = \left(\mathrm{Sin}\left(\arcCos\left(\frac{\sqrt{5}}{6}\right)\right) = \frac{\sqrt{31}}{6}\right) & .3 = \left(\mathrm{Tan}\left(\arcCos\left(\frac{-3}{4}\right)\right) = -\frac{\sqrt{7}}{3}\right) \\ .4 = \left(\mathrm{Sec}\left(\arcTan\left(\frac{3}{5}\right)\right) = \frac{\sqrt{34}}{5}\right) & .5 = \left(\mathrm{Cot}\left(\arcCos\left(\frac{2}{7}\right)\right) = \frac{2\sqrt{5}}{15}\right) & .6 = \left(\mathrm{Cos}\left(\arcSin\left(\frac{-3}{8}\right)\right) = \frac{\sqrt{55}}{8}\right) \\ .7 = \left(\mathrm{Csc}\left(\arcSin\left(\frac{1}{4}\right)\right) = 4\right) & .8 = \left(\mathrm{Cos}\left(\arcTan\left(\frac{-3}{7}\right)\right) = \frac{7\sqrt{58}}{58}\right) & .9 = \left(\mathrm{Sin}\left(\arcTan\left(-\frac{\sqrt{3}}{5}\right)\right) = -\frac{\sqrt{3}\sqrt{7}}{14}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arcCos\left(\frac{5}{9}\right) + \arcSin\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{14}\sqrt{3}}{9} - \frac{5}{18}\right) & .2 = \left(\mathrm{Cos}\left(\arcCos\left(\frac{1}{2}\right) + \arcSin\left(\frac{5}{7}\right)\right) = \frac{\sqrt{6}}{7} - \frac{5\sqrt{3}}{14}\right) \\ .3 = \left(\mathrm{Sin}\left(2\arcSin\left(\frac{5}{7}\right)\right) = \frac{20\sqrt{6}}{49}\right) & .4 = \left(\cos\left(2\arcCos\left(\frac{1}{2}\right)\right) = \frac{-1}{2}\right) \\ .5 = \left(\arcTan(\mathrm{Cos}(3\pi) + \mathrm{Sin}(3\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\mathrm{Cot}\left(\arcCos\left(\mathrm{Sin}\left(-\frac{5\pi}{6}\right)\right) + \arcSin\left(\mathrm{Cos}\left(\frac{5\pi}{3}\right)\right)\right) = -\sqrt{3}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\,\alpha^2 - 1, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.9789

$$Ans1 = \begin{bmatrix} .1 = \left(\arccos\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) & .2 = \left(\arcsin\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .3 = (\arccos(-1) = \pi) \\ .4 = \left(\arcsin\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) & .5 = \left(\arccos\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) & .6 = \left(\arctan(-1) = -\frac{\pi}{4}\right) \\ .7 = (\arcsin(0) = 0) & .8 = (\arccos(-3) = undefined) & .9 = \left(\arctan\left(\frac{\sqrt{3}}{3}\right) = \frac{\pi}{6}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\sin\left(\arcsin\left(-\frac{\sqrt{2}}{2}\right)\right) = -\frac{\sqrt{2}}{2}\right) & .2 = \left(\tan\left(\arccos\left(-\frac{\sqrt{2}}{2}\right)\right) = -1\right) & .3 = \left(\cos(\arctan(-\sqrt{3})) = \frac{1}{2}\right) \\ .4 = \left(\sin(\arctan(-1)) = -\frac{\sqrt{2}}{2}\right) & .5 = \left(\arccos\left(\cos\left(\frac{5\pi}{6}\right)\right) = \frac{5\pi}{6}\right) & .6 = \left(\arccos\left(\sin\left(-\frac{\pi}{4}\right)\right) = \frac{3\pi}{4}\right) \\ .7 = \left(\arcsin\left(\sin\left(-\frac{13\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(-\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .9 = \left(\arctan\left(\tan\left(\frac{11\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\csc\left(\arccos\left(\frac{\sqrt{2}}{2}\right)\right) = \sqrt{2}\right) & .11 = \left(\tan\left(\arccos\left(\sin\left(\frac{7\pi}{6}\right)\right)\right) = -\sqrt{3}\right) & .12 = \left(\arcsin\left(\cos\left(\arcsin\left(\frac{-1}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix} \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix} \end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\cos\left(\arctan\left(\frac{-3}{4}\right)\right) = \frac{4}{5}\right) & .2 = \left(\sin\left(\arctan\left(\frac{\sqrt{7}}{4}\right)\right) = \frac{\sqrt{7}\sqrt{23}}{23}\right) & .3 = \left(\tan\left(\arcsin\left(\frac{\sqrt{7}}{12}\right)\right) = \frac{\sqrt{7}\sqrt{137}}{137}\right) \\ .4 = \left(\cos\left(\arcsin\left(\frac{-1}{5}\right)\right) = \frac{2\sqrt{6}}{5}\right) & .5 = \left(\sec\left(\arctan\left(\frac{1}{3}\right)\right) = \frac{\sqrt{10}}{3}\right) & .6 = \left(\tan\left(\arccos\left(\frac{1}{3}\right)\right) = 2\sqrt{2}\right) \\ .7 = \left(\cot\left(\arcsin\left(\frac{2}{7}\right)\right) = \frac{3\sqrt{5}}{2}\right) & .8 = \left(\sin\left(\arccos\left(\frac{\sqrt{2}}{3}\right)\right) = \frac{\sqrt{7}}{3}\right) & .9 = \left(\csc\left(\arccos\left(\frac{-3}{7}\right)\right) = \frac{7\sqrt{10}}{20}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{1}{6}\right) + \arcsin\left(\frac{1}{2}\right)\right) = \frac{\sqrt{35}\sqrt{3}}{12} + \frac{1}{12}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{-5}{7}\right)\right) = \frac{5\sqrt{3}}{14} + \frac{\sqrt{6}}{7}\right) \\ .3 = \left(\sin\left(2\arcsin\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{5}{7}\right)\right) = \frac{1}{49}\right) \\ .5 = \left(\arctan\left(\cos(7\pi) + \sin\left(-\frac{7\pi}{2}\right)\right) = 0\right) & .6 = \left(\sec\left(\arccos\left(\sin\left(\frac{17\pi}{6}\right)\right) + \arcsin\left(\cos\left(-\frac{2\pi}{3}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\alpha^2 - 1, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.9795

$$Ans1 = \begin{bmatrix} .1 = \left(\arcsin(-1) = -\frac{\pi}{2}\right) & .2 = \left(\arccos\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .3 = \left(\arctan(\sqrt{3}) = \frac{\pi}{3}\right) \\ .4 = \left(\arccos(0) = \frac{\pi}{2}\right) & .5 = \left(\arccos\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) & .6 = \left(\arcsin\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \\ .7 = (\arcsin(\sqrt{3}) = undefined) & .8 = \left(\arcsin\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) & .9 = \left(\arctan(-1) = -\frac{\pi}{4}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\sin\left(\arcsin\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}}{2}\right) & .2 = \left(\cos\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{1}{2}\right) & .3 = \left(\sin\left(\arctan\left(\frac{\sqrt{3}}{3}\right)\right) = \frac{1}{2}\right) \\ .4 = \left(\tan\left(\arcsin\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) & .5 = \left(\arccos\left(\cos\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\arcsin\left(\cos\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{3}\right) \\ .7 = \left(\arcsin\left(\sin\left(\frac{5\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(\frac{5\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\arctan\left(\tan\left(\frac{11\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\cot(\arctan(\sqrt{3})) = \frac{\sqrt{3}}{3}\right) & .11 = \left(\tan\left(\arcsin\left(\cos\left(-\frac{\pi}{3}\right)\right)\right) = \frac{\sqrt{3}}{3}\right) & .12 = \left(\arcsin\left(\cos\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, \quad , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix} \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix} \end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\sin\left(\arctan\left(\frac{\sqrt{5}}{7}\right)\right) = \frac{\sqrt{5}\sqrt{6}}{18}\right) & .2 = \left(\cos\left(\arctan\left(\frac{-5}{7}\right)\right) = \frac{7\sqrt{74}}{74}\right) & .3 = \left(\csc\left(\arccos\left(\frac{-5}{8}\right)\right) = \frac{8\sqrt{39}}{39}\right) \\ .4 = \left(\sec\left(\arcsin\left(\frac{\sqrt{7}}{11}\right)\right) = \frac{11\sqrt{114}}{114}\right) & .5 = \left(\cot\left(\arctan\left(\frac{5}{2}\right)\right) = \frac{2}{5}\right) & .6 = \left(\sin\left(\arccos\left(\frac{\sqrt{3}}{8}\right)\right) = \frac{\sqrt{61}}{8}\right) \\ .7 = \left(\tan\left(\arcsin\left(\frac{-2}{3}\right)\right) = -\frac{2\sqrt{5}}{5}\right) & .8 = \left(\cos\left(\arcsin\left(\frac{3}{5}\right)\right) = \frac{4}{5}\right) & .9 = \left(\tan\left(\arccos\left(\frac{4}{7}\right)\right) = \frac{\sqrt{33}}{4}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{4}{5}\right) + \arcsin\left(\frac{-4}{9}\right)\right) = \frac{\sqrt{65}}{15} - \frac{16}{45}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{5}{7}\right)\right) = \frac{\sqrt{6}}{7} - \frac{5\sqrt{3}}{14}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{2}{5}\right)\right) = \frac{-17}{25}\right) \\ .5 = \left(\arctan\left(\cos(8\pi) + \sin\left(-\frac{5\pi}{2}\right)\right) = 0\right) & .6 = \left(\cot\left(\arccos\left(\sin\left(-\frac{7\pi}{6}\right)\right) + \arcsin\left(\cos\left(-\frac{\pi}{6}\right)\right)\right) = -\frac{\sqrt{3}}{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\alpha^2, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.9839

$$Ans1 = \begin{bmatrix} .1 = (\arctan(1) = \frac{\pi}{4}) & .2 = (\arcsin(\frac{\sqrt{2}}{2}) = \frac{\pi}{4}) & .3 = (\arcsin(1) = \frac{\pi}{2}) \\ .4 = (\arccos(-1) = \pi) & .5 = (\arccos(\frac{1}{2}) = \frac{\pi}{3}) & .6 = (\arccos(-2) = \mathit{undefined}) \\ .7 = (\arcsin(\frac{-1}{2}) = -\frac{\pi}{6}) & .8 = (\arctan(-\sqrt{3}) = -\frac{\pi}{3}) & .9 = (\arccos(-\frac{\sqrt{2}}{2}) = \frac{3\pi}{4}) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = (\mathrm{Sin}(\arcsin(-\frac{\sqrt{3}}{2})) = -\frac{\sqrt{3}}{2}) & .2 = (\mathrm{Sin}(\arctan(\frac{\sqrt{3}}{3})) = \frac{1}{2}) & .3 = (\mathrm{Tan}(\arcsin(-\frac{\sqrt{2}}{2})) = -1) \\ .4 = (\mathrm{Cos}(\arcsin(\frac{1}{2})) = \frac{\sqrt{3}}{2}) & .5 = (\arctan(\mathrm{Tan}(-\frac{\pi}{4})) = -\frac{\pi}{4}) & .6 = (\arccos(\mathrm{Sin}(\frac{\pi}{4})) = \frac{\pi}{4}) \\ .7 = (\arcsin(\mathrm{Sin}(\frac{5\pi}{6})) = \frac{\pi}{6}) & .8 = (\arccos(\mathrm{Cos}(-\frac{3\pi}{4})) = \frac{3\pi}{4}) & .9 = (\arctan(\mathrm{Tan}(-\frac{13\pi}{6})) = -\frac{\pi}{6}) \\ .10 = (\mathrm{Csc}(\arctan(-\sqrt{3})) = -\frac{2\sqrt{3}}{3}) & .11 = (\mathrm{Cot}(\arccos(\mathrm{Sin}(-\frac{13\pi}{6}))) = -\frac{\sqrt{3}}{3}) & .12 = (\mathrm{ArcSin}(\mathrm{Cos}(\mathrm{ArcSin}(\frac{-1}{2}))) = \frac{\pi}{3}) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = (\mathrm{Tan}(\arcsin(\frac{5}{9})) = \frac{5\sqrt{14}}{28}) & .2 = (\mathrm{Csc}(\arctan(\sqrt{6})) = \frac{\sqrt{6}\sqrt{7}}{6}) & .3 = (\mathrm{Tan}(\arccos(-\frac{\sqrt{3}}{5})) = -\frac{\sqrt{22}\sqrt{3}}{3}) \\ .4 = (\mathrm{Cos}(\arcsin(\frac{-2}{3})) = \frac{\sqrt{5}}{3}) & .5 = (\mathrm{Sec}(\arcsin(-\frac{\sqrt{2}}{7})) = \frac{7\sqrt{47}}{47}) & .6 = (\mathrm{Cos}(\arctan(\frac{-7}{2})) = \frac{2\sqrt{53}}{53}) \\ .7 = (\mathrm{Sin}(\arctan(\frac{7}{4})) = \frac{7\sqrt{65}}{65}) & .8 = (\mathrm{Cot}(\arccos(\frac{5}{6})) = \frac{5\sqrt{11}}{11}) & .9 = (\mathrm{Sin}(\arccos(\frac{-5}{6})) = \frac{\sqrt{11}}{6}) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = (\mathrm{Sin}(\arccos(\frac{1}{2}) + \arcsin(\frac{-4}{9})) = \frac{\sqrt{3}\sqrt{65}}{18} - \frac{2}{9}) & .2 = (\mathrm{Cos}(\arccos(\frac{1}{3}) + \arcsin(\frac{1}{6})) = \frac{\sqrt{35}}{18} - \frac{\sqrt{2}}{9}) \\ .3 = (\mathrm{Sin}(2\arcsin(\frac{1}{5})) = \frac{4\sqrt{6}}{25}) & .4 = (\cos(2\arcsin(\frac{5}{7})) = \frac{-1}{49}) \\ .5 = (\arctan(\mathrm{Cos}(\frac{\pi}{2}) + \mathrm{Sin}(-\frac{9\pi}{2})) = -\frac{\pi}{4}) & .6 = (\mathrm{Cot}(\arccos(\mathrm{Sin}(\frac{17\pi}{6})) + \arcsin(\mathrm{Cos}(\frac{10\pi}{3}))) = \sqrt{3}) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\alpha^2, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.9843

$$Ans1 = \begin{bmatrix} .1 = (\arcsin(-1) = -\frac{\pi}{2}) & .2 = (\arccos(1) = 0) & .3 = (\arcsin(\frac{1}{2}) = \frac{\pi}{6}) \\ .4 = (\arccos(\frac{-1}{2}) = \frac{2\pi}{3}) & .5 = (\arccos(\frac{\sqrt{2}}{2}) = \frac{\pi}{4}) & .6 = (\arctan(-1) = -\frac{\pi}{4}) \\ .7 = (\arctan(\frac{\sqrt{3}}{3}) = \frac{\pi}{6}) & .8 = (\arcsin(-\sqrt{3}) = \mathit{undefined}) & .9 = (\arcsin(-\frac{\sqrt{3}}{2}) = -\frac{\pi}{3}) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = (\mathrm{Tan}(\arctan(-1)) = -1) & .2 = (\mathrm{Tan}(\arccos(\frac{1}{2})) = \sqrt{3}) & .3 = (\mathrm{Cos}(\arctan(-\sqrt{3})) = \frac{1}{2}) \\ .4 = (\mathrm{Sin}(\arctan(\sqrt{3})) = \frac{\sqrt{3}}{2}) & .5 = (\arcsin(\mathrm{Sin}(\frac{\pi}{6})) = \frac{\pi}{6}) & .6 = (\arcsin(\mathrm{Cos}(\frac{5\pi}{6})) = -\frac{\pi}{3}) \\ .7 = (\arcsin(\mathrm{Sin}(\frac{13\pi}{6})) = \frac{\pi}{6}) & .8 = (\arccos(\mathrm{Cos}(-\frac{3\pi}{4})) = \frac{3\pi}{4}) & .9 = (\arctan(\mathrm{Tan}(-\frac{7\pi}{6})) = -\frac{\pi}{6}) \\ .10 = (\mathrm{Csc}(\arcsin(\frac{\sqrt{2}}{2})) = \sqrt{2}) & .11 = (\mathrm{Cot}(\arccos(\mathrm{Sin}(\frac{7\pi}{6}))) = -\frac{\sqrt{3}}{3}) & .12 = (\mathrm{ArcSin}(\mathrm{Cos}(\mathrm{ArcSin}(-\frac{\sqrt{2}}{2}))) = \frac{\pi}{4}) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = (\mathrm{Sec}(\arcsin(\frac{3}{8})) = \frac{8\sqrt{55}}{55}) & .2 = (\mathrm{Tan}(\arccos(\frac{1}{4})) = \sqrt{15}) & .3 = (\mathrm{Cos}(\arcsin(\frac{-3}{5})) = \frac{4}{5}) \\ .4 = (\mathrm{Tan}(\arcsin(\frac{\sqrt{7}}{9})) = \frac{\sqrt{7}\sqrt{74}}{74}) & .5 = (\mathrm{Cos}(\arctan(\frac{2}{7})) = \frac{7\sqrt{53}}{53}) & .6 = (\mathrm{Sin}(\arctan(\frac{-4}{3})) = \frac{-4}{5}) \\ .7 = (\mathrm{Cot}(\arccos(\frac{-1}{4})) = -\frac{\sqrt{15}}{15}) & .8 = (\mathrm{Csc}(\arctan(\frac{\sqrt{7}}{2})) = \frac{\sqrt{11}\sqrt{7}}{7}) & .9 = (\mathrm{Sin}(\arccos(\frac{\sqrt{3}}{8})) = \frac{\sqrt{61}}{8}) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = (\mathrm{Sin}(\arccos(\frac{4}{7}) + \arcsin(\frac{-1}{2})) = \frac{\sqrt{3}\sqrt{33}}{14} - \frac{2}{7}) & .2 = (\mathrm{Cos}(\arccos(\frac{1}{3}) + \arcsin(\frac{2}{3})) = \frac{\sqrt{5}}{9} - \frac{4\sqrt{2}}{9}) \\ .3 = (\mathrm{Sin}(2\arccos(\frac{4}{7})) = \frac{8\sqrt{33}}{49}) & .4 = (\cos(2\arccos(\frac{1}{2})) = \frac{-1}{2}) \\ .5 = (\arctan(\mathrm{Cos}(2\pi) + \mathrm{Sin}(-\frac{5\pi}{2})) = 0) & .6 = (\mathrm{Sec}(\arccos(\mathrm{Sin}(\frac{17\pi}{6})) + \arcsin(\mathrm{Cos}(\frac{8\pi}{3}))) = \frac{2\sqrt{3}}{3}) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\alpha^2 - 1, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.9854

$$Ans1 = \begin{bmatrix} .1 = \left(\text{arcCos}(0) = \frac{\pi}{2}\right) & .2 = (\text{arcCos}(-3) = \textit{undefined}) & .3 = \left(\text{arcCos}\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) \\ .4 = \left(\text{arcSin}\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) & .5 = \left(\text{arcTan}(1) = \frac{\pi}{4}\right) & .6 = \left(\text{arcCos}\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) \\ .7 = \left(\text{arcTan}(-\sqrt{3}) = -\frac{\pi}{3}\right) & .8 = \left(\text{arcSin}(1) = \frac{\pi}{2}\right) & .9 = \left(\text{arcSin}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcSin}\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .2 = \left(\text{Cos}(\text{arcTan}(1)) = \frac{\sqrt{2}}{2}\right) & .3 = \left(\text{Sin}\left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) \\ .4 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) & .5 = \left(\text{arcSin}\left(\text{Sin}\left(-\frac{\pi}{3}\right)\right) = -\frac{\pi}{3}\right) & .6 = \left(\text{arcSin}\left(\text{Cos}\left(\frac{5\pi}{6}\right)\right) = -\frac{\pi}{3}\right) \\ .7 = \left(\text{arcSin}\left(\text{Sin}\left(\frac{13\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\text{arcCos}\left(\text{Cos}\left(\frac{8\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\text{arcTan}\left(\text{Tan}\left(\frac{5\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\text{Cot}\left(\text{arcTan}\left(-\frac{\sqrt{3}}{3}\right)\right) = -\sqrt{3}\right) & .11 = \left(\text{Tan}\left(\text{arcSin}\left(\text{Cos}\left(-\frac{\pi}{3}\right)\right)\right) = \frac{\sqrt{3}}{3}\right) & .12 = \left(\text{ArcSin}\left(\text{Cos}\left(\text{ArcSin}\left(\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, \quad , \begin{bmatrix} :) \\ :(\\ \left[\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcTan}\left(\frac{-7}{2}\right)\right) = -\frac{7\sqrt{53}}{53}\right) & .2 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{-3}{8}\right)\right) = \frac{\sqrt{55}}{8}\right) & .3 = \left(\text{Cos}(\text{arcTan}(4)) = \frac{\sqrt{17}}{17}\right) \\ .4 = \left(\text{Cot}(\text{arcTan}(-\sqrt{2})) = -\frac{\sqrt{2}}{2}\right) & .5 = \left(\text{Csc}\left(\text{arcCos}\left(\frac{-4}{5}\right)\right) = \frac{5}{3}\right) & .6 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{5}{9}\right)\right) = \frac{2\sqrt{14}}{5}\right) \\ .7 = \left(\text{Sec}\left(\text{arcSin}\left(\frac{\sqrt{5}}{8}\right)\right) = \frac{8\sqrt{59}}{59}\right) & .8 = \left(\text{Tan}\left(\text{arcSin}\left(\frac{3}{5}\right)\right) = \frac{3}{4}\right) & .9 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{\sqrt{2}}{7}\right)\right) = \frac{\sqrt{47}}{7}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{4}{7}\right) + \text{arcSin}\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}\sqrt{33}}{14} - \frac{2}{7}\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{4}{7}\right) + \text{arcSin}\left(\frac{2}{7}\right)\right) = \frac{12\sqrt{5}}{49} - \frac{2\sqrt{33}}{49}\right) \\ .3 = \left(\text{Sin}\left(2\,\text{arcSin}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .4 = \left(\cos\left(2\,\text{arcCos}\left(\frac{1}{2}\right)\right) = \frac{-1}{2}\right) \\ .5 = \left(\text{arcTan}\left(\text{Cos}\left(\frac{9\pi}{2}\right) + \text{Sin}\left(-\frac{11\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\text{Sec}\left(\text{arcCos}\left(\text{Sin}\left(-\frac{5\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(-\frac{5\pi}{6}\right)\right)\right) = 2\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\,\alpha^2, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.9862

$$Ans1 = \begin{bmatrix} .1 = \left(\text{arcSin}\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) & .2 = \left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .3 = \left(\text{arcCos}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \\ .4 = (\text{arcCos}(1) = 0) & .5 = \left(\text{arcSin}\left(\frac{1}{2}\right) = \frac{\pi}{6}\right) & .6 = \left(\text{arcTan}(\sqrt{3}) = \frac{\pi}{3}\right) \\ .7 = (\text{arcCos}(5) = \textit{undefined}) & .8 = (\text{arcSin}(0) = 0) & .9 = \left(\text{arcTan}\left(-\frac{\sqrt{3}}{3}\right) = -\frac{\pi}{6}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcSin}\left(\frac{-1}{2}\right)\right) = \frac{-1}{2}\right) & .2 = \left(\text{Tan}\left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right)\right) = -1\right) & .3 = \left(\text{Cos}\left(\text{arcTan}\left(-\frac{\sqrt{3}}{3}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .4 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\text{arcSin}\left(\text{Sin}\left(-\frac{\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .6 = \left(\text{arcSin}\left(\text{Cos}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{3}\right) \\ .7 = \left(\text{arcSin}\left(\text{Sin}\left(-\frac{5\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\text{arcCos}\left(\text{Cos}\left(\frac{4\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\text{arcTan}\left(\text{Tan}\left(\frac{13\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\text{Cot}\left(\text{arcCos}\left(\frac{-1}{2}\right)\right) = -\frac{\sqrt{3}}{3}\right) & .11 = \left(\text{Csc}\left(\text{arcSin}\left(\text{Cos}\left(\frac{11\pi}{3}\right)\right)\right) = 2\right) & .12 = \left(\text{ArcSin}\left(\text{Cos}\left(\text{ArcSin}\left(\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, \quad , \begin{bmatrix} :) \\ :(\\ \left[\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcTan}\left(\frac{3}{2}\right)\right) = \frac{3\sqrt{13}}{13}\right) & .2 = \left(\text{Sec}\left(\text{arcSin}\left(\frac{2}{3}\right)\right) = \frac{3\sqrt{5}}{5}\right) & .3 = \left(\text{Tan}\left(\text{arcSin}\left(\frac{-4}{5}\right)\right) = \frac{-4}{3}\right) \\ .4 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{4}{5}\right)\right) = \frac{3}{5}\right) & .5 = \left(\text{Csc}\left(\text{arcTan}\left(\frac{-7}{6}\right)\right) = -\frac{\sqrt{85}}{7}\right) & .6 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{\sqrt{2}}{5}\right)\right) = \frac{\sqrt{23}\sqrt{2}}{2}\right) \\ .7 = \left(\text{Cos}(\text{arcTan}(-\sqrt{5})) = \frac{\sqrt{6}}{6}\right) & .8 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{\sqrt{5}}{8}\right)\right) = \frac{\sqrt{59}}{8}\right) & .9 = \left(\text{Cot}\left(\text{arcCos}\left(\frac{-1}{5}\right)\right) = -\frac{\sqrt{6}}{12}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{3}{4}\right) + \text{arcSin}\left(\frac{2}{3}\right)\right) = \frac{\sqrt{7}\sqrt{5}}{12} + \frac{1}{2}\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{1}{2}\right) + \text{arcSin}\left(\frac{-5}{8}\right)\right) = \frac{\sqrt{39}}{16} + \frac{5\sqrt{3}}{16}\right) \\ .3 = \left(\text{Sin}\left(2\,\text{arcCos}\left(\frac{3}{8}\right)\right) = \frac{3\sqrt{55}}{32}\right) & .4 = \left(\cos\left(2\,\text{arcSin}\left(\frac{1}{6}\right)\right) = \frac{17}{18}\right) \\ .5 = \left(\text{arcTan}(\text{Cos}(3\pi) + \text{Sin}(-5\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\text{Sec}\left(\text{arcCos}\left(\text{Sin}\left(\frac{13\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(-\frac{2\pi}{3}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\,\alpha^2, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.10278

$$Ans1 = \begin{bmatrix} .1 = \left(\operatorname{arcCos}(0) = \frac{\pi}{2}\right) & .2 = \left(\operatorname{arcSin}\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) & .3 = (\operatorname{arcCos}(-7) = \mathit{undefined}) \\ .4 = \left(\operatorname{arcCos}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .5 = \left(\operatorname{arcCos}\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}\right) & .6 = \left(\operatorname{arcSin}(-1) = -\frac{\pi}{2}\right) \\ .7 = \left(\operatorname{arcTan}\left(-\frac{\sqrt{3}}{3}\right) = -\frac{\pi}{6}\right) & .8 = \left(\operatorname{arcTan}(\sqrt{3}) = \frac{\pi}{3}\right) & .9 = \left(\operatorname{arcSin}\left(\frac{1}{2}\right) = \frac{\pi}{6}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\operatorname{Tan}\left(\operatorname{arcTan}\left(\frac{\sqrt{3}}{3}\right)\right) = \frac{\sqrt{3}}{3}\right) & .2 = \left(\operatorname{Sin}\left(\operatorname{arcCos}\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .3 = \left(\operatorname{Cos}\left(\operatorname{arcSin}\left(-\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) \\ .4 = \left(\operatorname{Tan}\left(\operatorname{arcSin}\left(\frac{-1}{2}\right)\right) = -\frac{\sqrt{3}}{3}\right) & .5 = \left(\operatorname{arcTan}\left(\operatorname{Tan}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\operatorname{arcSin}\left(\operatorname{Cos}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{3}\right) \\ .7 = \left(\operatorname{arcSin}\left(\operatorname{Sin}\left(-\frac{7\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\operatorname{arcCos}\left(\operatorname{Cos}\left(\frac{5\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\operatorname{arcTan}\left(\operatorname{Tan}\left(\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = (\operatorname{Sec}(\operatorname{arcTan}(1)) = \sqrt{2}) & .11 = \left(\operatorname{Sec}\left(\operatorname{arcCos}\left(\operatorname{Sin}\left(-\frac{11\pi}{6}\right)\right)\right) = 2\right) & .12 = \left(\operatorname{ArcCos}\left(\operatorname{Sin}\left(\operatorname{ArcCos}\left(-\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\operatorname{Tan}\left(\operatorname{arcCos}\left(\frac{\sqrt{3}}{4}\right)\right) = \frac{\sqrt{13}\sqrt{3}}{3}\right) & .2 = \left(\operatorname{Cos}\left(\operatorname{arcTan}\left(\frac{4}{5}\right)\right) = \frac{5\sqrt{41}}{41}\right) & .3 = \left(\operatorname{Cos}\left(\operatorname{arcSin}\left(\frac{\sqrt{2}}{5}\right)\right) = \frac{\sqrt{23}}{5}\right) \\ .4 = \left(\operatorname{Sin}\left(\operatorname{arcTan}\left(-\frac{\sqrt{6}}{7}\right)\right) = -\frac{\sqrt{6}\sqrt{55}}{55}\right) & .5 = \left(\operatorname{Tan}\left(\operatorname{arcSin}\left(\frac{-2}{3}\right)\right) = -\frac{2\sqrt{5}}{5}\right) & .6 = \left(\operatorname{Sec}\left(\operatorname{arcSin}\left(\frac{4}{5}\right)\right) = \frac{5}{3}\right) \\ .7 = \left(\operatorname{Sin}\left(\operatorname{arcCos}\left(\frac{-5}{9}\right)\right) = \frac{2\sqrt{14}}{9}\right) & .8 = \left(\operatorname{Csc}\left(\operatorname{arcTan}\left(\frac{-3}{5}\right)\right) = -\frac{\sqrt{34}}{3}\right) & .9 = \left(\operatorname{Cot}\left(\operatorname{arcCos}\left(\frac{3}{4}\right)\right) = \frac{3\sqrt{7}}{7}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\operatorname{Sin}\left(\operatorname{arcCos}\left(\frac{3}{4}\right) + \operatorname{arcSin}\left(\frac{1}{6}\right)\right) = \frac{\sqrt{7}\sqrt{35}}{24} + \frac{1}{8}\right) & .2 = \left(\operatorname{Cos}\left(\operatorname{arcCos}\left(\frac{2}{7}\right) + \operatorname{arcSin}\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{7} + \frac{3\sqrt{5}}{14}\right) \\ .3 = \left(\operatorname{Sin}\left(2\operatorname{arcCos}\left(\frac{5}{8}\right)\right) = \frac{5\sqrt{39}}{32}\right) & .4 = \left(\cos\left(2\operatorname{arcCos}\left(\frac{3}{7}\right)\right) = \frac{-31}{49}\right) \\ .5 = \left(\operatorname{arcTan}(\operatorname{Cos}(\pi) + \operatorname{Sin}(-4\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\operatorname{Sec}\left(\operatorname{arcCos}\left(\operatorname{Sin}\left(\frac{17\pi}{6}\right)\right) + \operatorname{arcSin}\left(\operatorname{Cos}\left(-\frac{2\pi}{3}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\,\alpha^2 - 1, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.10361

$$Ans1 = \begin{bmatrix} .1 = \left(\operatorname{arcSin}\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) & .2 = \left(\operatorname{arcCos}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .3 = (\operatorname{arcSin}(2) = \mathit{undefined}) \\ .4 = \left(\operatorname{arcSin}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .5 = \left(\operatorname{arcSin}(-1) = -\frac{\pi}{2}\right) & .6 = (\operatorname{arcCos}(1) = 0) \\ .7 = \left(\operatorname{arcCos}\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) & .8 = \left(\operatorname{arcTan}(-1) = -\frac{\pi}{4}\right) & .9 = (\operatorname{arcTan}(0) = 0) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\operatorname{Tan}\left(\operatorname{arcTan}\left(\frac{\sqrt{3}}{3}\right)\right) = \frac{\sqrt{3}}{3}\right) & .2 = \left(\operatorname{Cos}\left(\operatorname{arcSin}\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .3 = \left(\operatorname{Tan}\left(\operatorname{arcSin}\left(-\frac{\sqrt{2}}{2}\right)\right) = -1\right) \\ .4 = \left(\operatorname{Sin}(\operatorname{arcTan}(1)) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\operatorname{arcCos}\left(\operatorname{Cos}\left(\frac{3\pi}{4}\right)\right) = \frac{3\pi}{4}\right) & .6 = \left(\operatorname{arcSin}\left(\operatorname{Cos}\left(\frac{\pi}{3}\right)\right) = \frac{\pi}{6}\right) \\ .7 = \left(\operatorname{arcSin}\left(\operatorname{Sin}\left(-\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\operatorname{arcCos}\left(\operatorname{Cos}\left(-\frac{3\pi}{4}\right)\right) = \frac{3\pi}{4}\right) & .9 = \left(\operatorname{arcTan}\left(\operatorname{Tan}\left(-\frac{11\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\operatorname{Csc}\left(\operatorname{arcCos}\left(\frac{1}{2}\right)\right) = \frac{2\sqrt{3}}{3}\right) & .11 = \left(\operatorname{Csc}\left(\operatorname{arcSin}\left(\operatorname{Cos}\left(-\frac{\pi}{4}\right)\right)\right) = \sqrt{2}\right) & .12 = \left(\operatorname{ArcCos}\left(\operatorname{Sin}\left(\operatorname{ArcCos}\left(\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\operatorname{Tan}\left(\operatorname{arcSin}\left(-\frac{\sqrt{5}}{7}\right)\right) = -\frac{\sqrt{5}\sqrt{11}}{22}\right) & .2 = \left(\operatorname{Sin}\left(\operatorname{arcCos}\left(\frac{5}{8}\right)\right) = \frac{\sqrt{39}}{8}\right) & .3 = \left(\operatorname{Cot}\left(\operatorname{arcSin}\left(\frac{5}{6}\right)\right) = \frac{\sqrt{11}}{5}\right) \\ .4 = \left(\operatorname{Cos}\left(\operatorname{arcSin}\left(\frac{-4}{5}\right)\right) = \frac{3}{5}\right) & .5 = (\operatorname{Sec}(\operatorname{arcTan}(\sqrt{2})) = \sqrt{3}) & .6 = \left(\operatorname{Cos}(\operatorname{arcTan}(-5)) = \frac{\sqrt{26}}{26}\right) \\ .7 = \left(\operatorname{Tan}\left(\operatorname{arcCos}\left(\frac{-5}{7}\right)\right) = -\frac{2\sqrt{6}}{5}\right) & .8 = \left(\operatorname{Sin}\left(\operatorname{arcTan}\left(\frac{5}{7}\right)\right) = \frac{5\sqrt{74}}{74}\right) & .9 = \left(\operatorname{Csc}\left(\operatorname{arcCos}\left(-\frac{\sqrt{7}}{12}\right)\right) = \frac{12\sqrt{137}}{137}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\operatorname{Sin}\left(\operatorname{arcCos}\left(\frac{1}{2}\right) + \operatorname{arcSin}\left(\frac{5}{8}\right)\right) = \frac{\sqrt{3}\sqrt{39}}{16} + \frac{5}{16}\right) & .2 = \left(\operatorname{Cos}\left(\operatorname{arcCos}\left(\frac{3}{8}\right) + \operatorname{arcSin}\left(\frac{-1}{4}\right)\right) = \frac{3\sqrt{15}}{32} + \frac{\sqrt{55}}{32}\right) \\ .3 = \left(\operatorname{Sin}\left(2\operatorname{arcCos}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .4 = \left(\cos\left(2\operatorname{arcSin}\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) \\ .5 = \left(\operatorname{arcTan}\left(\operatorname{Cos}(\pi) + \operatorname{Sin}\left(-\frac{15\pi}{2}\right)\right) = 0\right) & .6 = \left(\operatorname{Cot}\left(\operatorname{arcCos}\left(\operatorname{Sin}\left(\frac{13\pi}{6}\right)\right) + \operatorname{arcSin}\left(\operatorname{Cos}\left(\frac{10\pi}{3}\right)\right)\right) = \sqrt{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\,\alpha^2 - 1, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.10532

$$Ans1 = \begin{bmatrix} .1 = \left(\arctan(-\sqrt{3}) = -\frac{\pi}{3}\right) & .2 = \left(\arctan\left(\frac{\sqrt{3}}{3}\right) = \frac{\pi}{6}\right) & .3 = \left(\arcsin\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) \\ .4 = \left(\arccos\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .5 = (\arccos(-5) = \mathit{undefined}) & .6 = \left(\arcsin\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) \\ .7 = \left(\arcsin(1) = \frac{\pi}{2}\right) & .8 = (\arccos(-1) = \pi) & .9 = \left(\arccos\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}\right) \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}}{2}\right) & .2 = \left(\tan\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)\right) = 1\right) & .3 = \left(\cos\left(\arcsin\left(-\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) \\ .4 = \left(\sin\left(\arccos\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .5 = \left(\arcsin\left(\sin\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\arccos\left(\sin\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{3}\right) \\ .7 = \left(\arcsin\left(\sin\left(-\frac{5\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(\frac{11\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\arctan\left(\tan\left(\frac{13\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = (\cot(\arctan(1)) = 1) & .11 = \left(\cot\left(\arcsin\left(\cos\left(-\frac{\pi}{4}\right)\right)\right) = 1\right) & .12 = \left(\arccos\left(\sin\left(\arccos\left(\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\tan\left(\arccos\left(-\frac{\sqrt{3}}{7}\right)\right) = -\frac{\sqrt{46}\sqrt{3}}{3}\right) & .2 = \left(\sin\left(\arctan\left(\frac{1}{5}\right)\right) = \frac{\sqrt{26}}{26}\right) & .3 = \left(\sec\left(\arcsin\left(\frac{4}{7}\right)\right) = \frac{7\sqrt{33}}{33}\right) \\ .4 = \left(\cot\left(\arccos\left(\frac{-5}{7}\right)\right) = -\frac{5\sqrt{6}}{12}\right) & .5 = \left(\cos\left(\arcsin\left(-\frac{\sqrt{2}}{5}\right)\right) = \frac{\sqrt{23}}{5}\right) & .6 = \left(\cos\left(\arctan\left(\frac{-1}{7}\right)\right) = \frac{7\sqrt{2}}{10}\right) \\ .7 = \left(\sin\left(\arccos\left(\frac{1}{6}\right)\right) = \frac{\sqrt{35}}{6}\right) & .8 = \left(\tan\left(\arcsin\left(\frac{-4}{7}\right)\right) = -\frac{4\sqrt{33}}{33}\right) & .9 = \left(\csc(\arctan(-\sqrt{5})) = -\frac{\sqrt{5}\sqrt{6}}{5}\right) \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{3}{8}\right) + \arcsin\left(\frac{-3}{8}\right)\right) = \frac{23}{32}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{6}\right) + \arcsin\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{12} - \frac{\sqrt{35}}{12}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{5}{7}\right)\right) = \frac{-1}{49}\right) \\ .5 = \left(\arctan(\cos(4\pi) + \sin(5\pi)) = \frac{\pi}{4}\right) & .6 = \left(\cot\left(\arccos\left(\sin\left(\frac{17\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{8\pi}{3}\right)\right)\right) = \sqrt{3}\right) \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}$$

$$Ans6 = 1 - 2\alpha^2$$

TrigonometryExercise5 Answers for No.10688

$$Ans1 = \begin{bmatrix} .1 = (\arccos(-\sqrt{3}) = \mathit{undefined}) & .2 = \left(\arccos\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) & .3 = (\arccos(-1) = \pi) \\ .4 = \left(\arcsin\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .5 = \left(\arccos\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .6 = (\arctan(0) = 0) \\ .7 = (\arcsin(0) = 0) & .8 = \left(\arcsin\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) & .9 = \left(\arctan(-\sqrt{3}) = -\frac{\pi}{3}\right) \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\arccos\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .2 = \left(\tan\left(\arccos\left(\frac{\sqrt{2}}{2}\right)\right) = 1\right) & .3 = \left(\sin(\arctan(-\sqrt{3})) = -\frac{\sqrt{3}}{2}\right) \\ .4 = \left(\cos\left(\arcsin\left(-\frac{\sqrt{3}}{2}\right)\right) = \frac{1}{2}\right) & .5 = \left(\arcsin\left(\sin\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\arcsin\left(\cos\left(\frac{5\pi}{6}\right)\right) = -\frac{\pi}{3}\right) \\ .7 = \left(\arcsin\left(\sin\left(-\frac{13\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(\frac{4\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\arctan\left(\tan\left(-\frac{17\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\cot\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)\right) = 1\right) & .11 = \left(\tan\left(\arccos\left(\sin\left(\frac{13\pi}{6}\right)\right)\right) = \sqrt{3}\right) & .12 = \left(\arcsin\left(\cos\left(\arcsin\left(\frac{1}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\cos\left(\arcsin\left(-\frac{\sqrt{5}}{9}\right)\right) = \frac{2\sqrt{19}}{9}\right) & .2 = \left(\sec\left(\arctan\left(-\frac{\sqrt{3}}{4}\right)\right) = \frac{\sqrt{19}}{4}\right) & .3 = \left(\sin\left(\arctan\left(\frac{1}{4}\right)\right) = \frac{\sqrt{17}}{17}\right) \\ .4 = \left(\cos\left(\arctan\left(\frac{-1}{4}\right)\right) = \frac{4\sqrt{17}}{17}\right) & .5 = \left(\csc\left(\arcsin\left(\frac{-4}{5}\right)\right) = \frac{-5}{4}\right) & .6 = \left(\tan\left(\arccos\left(\frac{1}{2}\right)\right) = \sqrt{3}\right) \\ .7 = \left(\sin\left(\arccos\left(\frac{\sqrt{5}}{8}\right)\right) = \frac{\sqrt{59}}{8}\right) & .8 = \left(\cot\left(\arccos\left(\frac{-4}{7}\right)\right) = -\frac{4\sqrt{33}}{33}\right) & .9 = \left(\tan\left(\arcsin\left(\frac{4}{7}\right)\right) = \frac{4\sqrt{33}}{33}\right) \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{3}{8}\right) + \arcsin\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{55}\sqrt{3}}{16} - \frac{3}{16}\right) & .2 = \left(\cos\left(\arccos\left(\frac{5}{6}\right) + \arcsin\left(\frac{5}{8}\right)\right) = \frac{5\sqrt{39}}{48} - \frac{5\sqrt{11}}{48}\right) \\ .3 = \left(\sin\left(2\arcsin\left(\frac{1}{3}\right)\right) = \frac{4\sqrt{2}}{9}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{3}{7}\right)\right) = \frac{31}{49}\right) \\ .5 = \left(\arctan\left(\cos(3\pi) + \sin\left(-\frac{3\pi}{2}\right)\right) = 0\right) & .6 = \left(\sec\left(\arccos\left(\sin\left(\frac{5\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{10\pi}{3}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}$$

$$Ans6 = 1 - 2\alpha^2$$

TrigonometryExercise5 Answers for No.10868

$$Ans1=\begin{bmatrix} .1=(\arcsin(7)=\mathit{undefined}) & .2=(\arccos(1)=0) & .3=\left(\arccos\left(\frac{1}{2}\right)=\frac{\pi}{3}\right)\\ .4=\left(\arctan(1)=\frac{\pi}{4}\right) & .5=\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)=\frac{\pi}{3}\right) & .6=\left(\arcsin\left(-\frac{\sqrt{3}}{2}\right)=-\frac{\pi}{3}\right)\\ .7=\left(\arccos\left(\frac{-1}{2}\right)=\frac{2\pi}{3}\right) & .8=\left(\arcsin(-1)=-\frac{\pi}{2}\right) & .9=(\arctan(0)=0)\end{bmatrix},\ \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans2=\begin{bmatrix} .1=\left(\cos\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)\right)=-\frac{\sqrt{3}}{2}\right) & .2=\left(\operatorname{Cos}\left(\arcsin\left(-\frac{\sqrt{3}}{2}\right)\right)=\frac{1}{2}\right) & .3=\left(\operatorname{Sin}\left(\arccos\left(\frac{\sqrt{2}}{2}\right)\right)=\frac{\sqrt{2}}{2}\right)\\ .4=\left(\operatorname{Tan}\left(\arccos\left(\frac{1}{2}\right)\right)=\sqrt{3}\right) & .5=\left(\arcsin\left(\operatorname{Sin}\left(\frac{\pi}{3}\right)\right)=\frac{\pi}{3}\right) & .6=\left(\arcsin\left(\operatorname{Cos}\left(\frac{\pi}{3}\right)\right)=\frac{\pi}{6}\right)\\ .7=\left(\arcsin\left(\operatorname{Sin}\left(-\frac{17\pi}{6}\right)\right)=-\frac{\pi}{6}\right) & .8=\left(\arccos\left(\operatorname{Cos}\left(\frac{10\pi}{3}\right)\right)=\frac{2\pi}{3}\right) & .9=\left(\arctan\left(\operatorname{Tan}\left(\frac{11\pi}{6}\right)\right)=-\frac{\pi}{6}\right)\\ .10=(\operatorname{Cot}(\arctan(1))=1) & .11=\left(\operatorname{Sec}\left(\arccos\left(\operatorname{Sin}\left(\frac{13\pi}{6}\right)\right)\right)=2\right) & .12=\left(\operatorname{ArcCos}\left(\operatorname{Sin}\left(\operatorname{ArcCos}\left(-\frac{\sqrt{2}}{2}\right)\right)\right)=\frac{\pi}{4}\right)\end{bmatrix},\ ,\ \begin{bmatrix}\frac{:)}{:(}\\ \begin{bmatrix}\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}\end{bmatrix}\\ \frac{:)}{:(}\end{bmatrix}$$

$$Ans3=\begin{bmatrix} .1=\left(\operatorname{Sec}\left(\arctan\left(\frac{2}{5}\right)\right)=\frac{\sqrt{29}}{5}\right) & .2=\left(\operatorname{Sin}\left(\arccos\left(\frac{-3}{5}\right)\right)=\frac{4}{5}\right) & .3=\left(\operatorname{Tan}\left(\arcsin\left(\frac{1}{2}\right)\right)=\frac{\sqrt{3}}{3}\right)\\ .4=\left(\operatorname{Cos}\left(\arcsin\left(-\frac{\sqrt{5}}{8}\right)\right)=\frac{\sqrt{59}}{8}\right) & .5=\left(\operatorname{Csc}\left(\arccos\left(\frac{\sqrt{7}}{8}\right)\right)=\frac{8\sqrt{57}}{57}\right) & .6=\left(\operatorname{Sin}\left(\arctan\left(\frac{\sqrt{3}}{2}\right)\right)=\frac{\sqrt{3}\sqrt{7}}{7}\right)\\ .7=\left(\operatorname{Cos}\left(\arctan\left(\frac{-6}{5}\right)\right)=\frac{5\sqrt{61}}{61}\right) & .8=\left(\operatorname{Cot}\left(\arcsin\left(\frac{-3}{4}\right)\right)=-\frac{\sqrt{7}}{3}\right) & .9=\left(\operatorname{Tan}\left(\arccos\left(\frac{5}{9}\right)\right)=\frac{2\sqrt{14}}{5}\right)\end{bmatrix},\ ,\ \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans4=\begin{bmatrix} .1=\left(\operatorname{Sin}\left(\arccos\left(\frac{2}{5}\right)+\arcsin\left(\frac{-2}{3}\right)\right)=\frac{\sqrt{5}\sqrt{21}}{15}-\frac{4}{15}\right) & .2=\left(\operatorname{Cos}\left(\arccos\left(\frac{3}{7}\right)+\arcsin\left(\frac{4}{7}\right)\right)=\frac{3\sqrt{33}}{49}-\frac{8\sqrt{10}}{49}\right)\\ .3=\left(\operatorname{Sin}\left(2\arccos\left(\frac{1}{6}\right)\right)=\frac{\sqrt{35}}{18}\right) & .4=\left(\cos\left(2\arcsin\left(\frac{1}{2}\right)\right)=\frac{1}{2}\right)\\ .5=\left(\arctan\left(\operatorname{Cos}(3\pi)+\operatorname{Sin}\left(\frac{17\pi}{2}\right)\right)=0\right) & .6=\left(\operatorname{Csc}\left(\arccos\left(\operatorname{Sin}\left(\frac{5\pi}{6}\right)\right)+\arcsin\left(\operatorname{Cos}\left(-\frac{\pi}{6}\right)\right)\right)=\frac{2\sqrt{3}}{3}\right)\end{bmatrix},\ ,\ \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans5=2\,\alpha\sqrt{1-\alpha^2},\ ,\ \begin{bmatrix}M\\U\\T\end{bmatrix}$$

$$Ans6=1-2\,\alpha^2,\ ,\ \begin{bmatrix}M\\U\\T\end{bmatrix}$$

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TrigonometryExercise5 Answers for No.10900

$$Ans1=\begin{bmatrix} .1=(\arccos(1)=0) & .2=\left(\arccos\left(-\frac{\sqrt{2}}{2}\right)=\frac{3\pi}{4}\right) & .3=\left(\arcsin\left(\frac{-1}{2}\right)=-\frac{\pi}{6}\right)\\ .4=\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)=\frac{\pi}{3}\right) & .5=(\arcsin(0)=0) & .6=\left(\arctan\left(\frac{\sqrt{3}}{3}\right)=\frac{\pi}{6}\right)\\ .7=(\arccos(-\sqrt{3})=\mathit{undefined}) & .8=\left(\arctan(-1)=-\frac{\pi}{4}\right) & .9=\left(\arccos\left(\frac{\sqrt{2}}{2}\right)=\frac{\pi}{4}\right)\end{bmatrix},\ \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans2=\begin{bmatrix} .1=\left(\cos\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)\right)=-\frac{\sqrt{3}}{2}\right) & .2=\left(\operatorname{Sin}\left(\arccos\left(\frac{-1}{2}\right)\right)=\frac{\sqrt{3}}{2}\right) & .3=\left(\operatorname{Tan}\left(\arccos\left(\frac{1}{2}\right)\right)=\sqrt{3}\right)\\ .4=\left(\operatorname{Cos}(\arctan(-1))=\frac{\sqrt{2}}{2}\right) & .5=\left(\arcsin\left(\operatorname{Sin}\left(-\frac{\pi}{4}\right)\right)=-\frac{\pi}{4}\right) & .6=\left(\arcsin\left(\operatorname{Cos}\left(\frac{\pi}{6}\right)\right)=\frac{\pi}{3}\right)\\ .7=\left(\arcsin\left(\operatorname{Sin}\left(\frac{11\pi}{6}\right)\right)=-\frac{\pi}{6}\right) & .8=\left(\arccos\left(\operatorname{Cos}\left(-\frac{\pi}{3}\right)\right)=\frac{\pi}{3}\right) & .9=\left(\arctan\left(\operatorname{Tan}\left(-\frac{11\pi}{6}\right)\right)=\frac{\pi}{6}\right)\\ .10=\left(\operatorname{Sec}\left(\arctan\left(\frac{\sqrt{3}}{3}\right)\right)=\frac{2\sqrt{3}}{3}\right) & .11=\left(\operatorname{Csc}\left(\arcsin\left(\operatorname{Cos}\left(\frac{7\pi}{3}\right)\right)\right)=2\right) & .12=\left(\operatorname{ArcSin}\left(\operatorname{Cos}\left(\operatorname{ArcSin}\left(\frac{\sqrt{3}}{2}\right)\right)\right)=\frac{\pi}{6}\right)\end{bmatrix},\ ,\ \begin{bmatrix}\frac{:)}{:(}\\ \begin{bmatrix}\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}\end{bmatrix}\\ \frac{:)}{:(}\end{bmatrix}$$

$$Ans3=\begin{bmatrix} .1=\left(\operatorname{Cos}\left(\arcsin\left(\frac{\sqrt{2}}{5}\right)\right)=\frac{\sqrt{23}}{5}\right) & .2=\left(\operatorname{Sin}\left(\arctan\left(\frac{5}{7}\right)\right)=\frac{5\sqrt{74}}{74}\right) & .3=\left(\operatorname{Sin}\left(\arccos\left(\frac{\sqrt{2}}{3}\right)\right)=\frac{\sqrt{7}}{3}\right)\\ .4=\left(\operatorname{Cot}\left(\arcsin\left(\frac{4}{9}\right)\right)=\frac{\sqrt{65}}{4}\right) & .5=\left(\operatorname{Tan}\left(\arccos\left(\frac{5}{9}\right)\right)=\frac{2\sqrt{14}}{5}\right) & .6=\left(\operatorname{Csc}\left(\arctan\left(\frac{-1}{5}\right)\right)=-\sqrt{26}\right)\\ .7=\left(\operatorname{Sec}\left(\arccos\left(\frac{-3}{5}\right)\right)=\frac{-5}{3}\right) & .8=\left(\operatorname{Tan}\left(\arcsin\left(\frac{-2}{7}\right)\right)=-\frac{2\sqrt{5}}{15}\right) & .9=\left(\operatorname{Cos}(\arctan(-\sqrt{3}))=\frac{1}{2}\right)\end{bmatrix},\ ,\ \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans4=\begin{bmatrix} .1=\left(\operatorname{Sin}\left(\arccos\left(\frac{5}{8}\right)+\arcsin\left(\frac{1}{2}\right)\right)=\frac{\sqrt{3}\sqrt{39}}{16}+\frac{5}{16}\right) & .2=\left(\operatorname{Cos}\left(\arccos\left(\frac{1}{5}\right)+\arcsin\left(\frac{-4}{5}\right)\right)=\frac{3}{25}+\frac{8\sqrt{6}}{25}\right)\\ .3=\left(\operatorname{Sin}\left(2\arcsin\left(\frac{2}{5}\right)\right)=\frac{4\sqrt{21}}{25}\right) & .4=\left(\cos\left(2\arcsin\left(\frac{5}{9}\right)\right)=\frac{31}{81}\right)\\ .5=\left(\arctan\left(\operatorname{Cos}(5\pi)+\operatorname{Sin}\left(-\frac{15\pi}{2}\right)\right)=0\right) & .6=\left(\operatorname{Csc}\left(\arccos\left(\operatorname{Sin}\left(\frac{17\pi}{6}\right)\right)+\arcsin\left(\operatorname{Cos}\left(-\frac{\pi}{6}\right)\right)\right)=\frac{2\sqrt{3}}{3}\right)\end{bmatrix},\ ,\ \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans5=2\,\alpha\sqrt{1-\alpha^2},\ ,\ \begin{bmatrix}M\\U\\T\end{bmatrix}$$

$$Ans6=1-2\,\alpha^2,\ ,\ \begin{bmatrix}M\\U\\T\end{bmatrix}$$

TrigonometryExercise5 Answers for No.11693

$$Ans1 = \begin{bmatrix} .1 = \left(\arcsin(1) = \frac{\pi}{2}\right) & .2 = (\arctan(0) = 0) & .3 = \left(\arccos(0) = \frac{\pi}{2}\right) \\ .4 = \left(\arcsin\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .5 = \left(\arcsin\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) & .6 = \left(\arctan\left(-\frac{\sqrt{3}}{3}\right) = -\frac{\pi}{6}\right) \\ .7 = \left(\arccos\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) & .8 = (\arccos(-5) = undefined) & .9 = \left(\arccos\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\arccos\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .2 = \left(\text{Sin}\left(\arccos\left(-\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .3 = \left(\text{Cos}\left(\arctan\left(\frac{\sqrt{3}}{3}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .4 = \left(\text{Tan}\left(\arccos\left(\frac{-1}{2}\right)\right) = -\sqrt{3}\right) & .5 = \left(\arcsin\left(\text{Sin}\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\arcsin\left(\text{Cos}\left(\frac{5\pi}{6}\right)\right) = -\frac{\pi}{3}\right) \\ .7 = \left(\arcsin\left(\text{Sin}\left(-\frac{7\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arccos\left(\text{Cos}\left(\frac{11\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\arctan\left(\text{Tan}\left(\frac{7\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\text{Cot}\left(\arccos\left(\frac{\sqrt{2}}{2}\right)\right) = 1\right) & .11 = \left(\text{Csc}\left(\arccos\left(\text{Sin}\left(\frac{17\pi}{6}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) & .12 = \left(\text{ArcSin}\left(\text{Cos}\left(\text{ArcSin}\left(\frac{1}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Tan}\left(\arccos\left(-\frac{\sqrt{2}}{7}\right)\right) = -\frac{\sqrt{47}\sqrt{2}}{2}\right) & .2 = \left(\text{Cos}\left(\arcsin\left(\frac{4}{7}\right)\right) = \frac{\sqrt{33}}{7}\right) & .3 = \left(\text{Sin}\left(\arctan\left(\frac{\sqrt{3}}{7}\right)\right) = \frac{\sqrt{13}\sqrt{3}}{26}\right) \\ .4 = \left(\text{Tan}\left(\arcsin\left(\frac{\sqrt{5}}{7}\right)\right) = \frac{\sqrt{5}\sqrt{11}}{22}\right) & .5 = \left(\text{Cos}(\arctan(-3)) = \frac{\sqrt{10}}{10}\right) & .6 = \left(\text{Sec}\left(\arctan\left(\frac{3}{4}\right)\right) = \frac{5}{4}\right) \\ .7 = \left(\text{Cot}\left(\arccos\left(\frac{3}{8}\right)\right) = \frac{3\sqrt{55}}{55}\right) & .8 = \left(\text{Sin}\left(\arccos\left(\frac{-5}{9}\right)\right) = \frac{2\sqrt{14}}{9}\right) & .9 = \left(\text{Csc}\left(\arcsin\left(\frac{-1}{2}\right)\right) = -2\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\arccos\left(\frac{4}{9}\right) + \arcsin\left(\frac{2}{5}\right)\right) = \frac{\sqrt{65}\sqrt{21}}{45} + \frac{8}{45}\right) & .2 = \left(\text{Cos}\left(\arccos\left(\frac{3}{5}\right) + \arcsin\left(\frac{-3}{7}\right)\right) = \frac{6\sqrt{10}}{35} + \frac{12}{35}\right) \\ .3 = \left(\text{Sin}\left(2\arcsin\left(\frac{2}{5}\right)\right) = \frac{4\sqrt{21}}{25}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{1}{6}\right)\right) = \frac{17}{18}\right) \\ .5 = \left(\arctan\left(\text{Cos}\left(\frac{\pi}{2}\right) + \text{Sin}\left(-\frac{11\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\text{Csc}\left(\arccos\left(\text{Sin}\left(-\frac{11\pi}{6}\right)\right) + \arcsin\left(\text{Cos}\left(-\frac{2\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\alpha^2 - 1, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.12097

$$Ans1 = \begin{bmatrix} .1 = \left(\arcsin\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .2 = (\arccos(-7) = undefined) & .3 = \left(\arctan(-1) = -\frac{\pi}{4}\right) \\ .4 = \left(\arcsin(-1) = -\frac{\pi}{2}\right) & .5 = \left(\arccos\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}\right) & .6 = \left(\arccos(0) = \frac{\pi}{2}\right) \\ .7 = \left(\arctan(\sqrt{3}) = \frac{\pi}{3}\right) & .8 = \left(\arccos\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) & .9 = \left(\arcsin\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .2 = \left(\text{Tan}\left(\arccos\left(\frac{1}{2}\right)\right) = \sqrt{3}\right) & .3 = \left(\text{Cos}(\arctan(-\sqrt{3})) = \frac{1}{2}\right) \\ .4 = \left(\text{Sin}(\arctan(\sqrt{3})) = \frac{\sqrt{3}}{2}\right) & .5 = \left(\arcsin\left(\text{Sin}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\arcsin\left(\text{Cos}\left(\frac{3\pi}{4}\right)\right) = -\frac{\pi}{4}\right) \\ .7 = \left(\arcsin\left(\text{Sin}\left(\frac{13\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arccos\left(\text{Cos}\left(-\frac{\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\arctan\left(\text{Tan}\left(\frac{5\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\text{Csc}\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)\right) = 2\right) & .11 = \left(\text{Cot}\left(\arccos\left(\text{Sin}\left(-\frac{13\pi}{6}\right)\right)\right) = -\frac{\sqrt{3}}{3}\right) & .12 = \left(\text{ArcSin}\left(\text{Cos}\left(\text{ArcSin}\left(\frac{-1}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Csc}\left(\arcsin\left(\frac{3}{5}\right)\right) = \frac{5}{3}\right) & .2 = \left(\text{Cos}\left(\arctan\left(\frac{\sqrt{7}}{4}\right)\right) = \frac{4\sqrt{23}}{23}\right) & .3 = \left(\text{Sec}\left(\arctan\left(\frac{-4}{3}\right)\right) = \frac{5}{3}\right) \\ .4 = \left(\text{Tan}\left(\arccos\left(\frac{5}{7}\right)\right) = \frac{2\sqrt{6}}{5}\right) & .5 = \left(\text{Sin}\left(\arccos\left(\frac{\sqrt{3}}{5}\right)\right) = \frac{\sqrt{22}}{5}\right) & .6 = \left(\text{Tan}\left(\arcsin\left(\frac{-1}{6}\right)\right) = -\frac{\sqrt{35}}{35}\right) \\ .7 = \left(\text{Cot}\left(\arccos\left(\frac{-5}{8}\right)\right) = -\frac{5\sqrt{39}}{39}\right) & .8 = \left(\text{Cos}\left(\arcsin\left(-\frac{\sqrt{3}}{7}\right)\right) = \frac{\sqrt{46}}{7}\right) & .9 = \left(\text{Sin}(\arctan(3)) = \frac{3\sqrt{10}}{10}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\arccos\left(\frac{2}{7}\right) + \arcsin\left(\frac{-5}{6}\right)\right) = \frac{\sqrt{5}\sqrt{11}}{14} - \frac{5}{21}\right) & .2 = \left(\text{Cos}\left(\arccos\left(\frac{4}{9}\right) + \arcsin\left(\frac{2}{3}\right)\right) = \frac{4\sqrt{5}}{27} - \frac{2\sqrt{65}}{27}\right) \\ .3 = \left(\text{Sin}\left(2\arccos\left(\frac{2}{7}\right)\right) = \frac{12\sqrt{5}}{49}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{1}{2}\right)\right) = \frac{-1}{2}\right) \\ .5 = \left(\arctan(\text{Cos}(\pi) + \text{Sin}(-2\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\text{Sec}\left(\arccos\left(\text{Sin}\left(-\frac{5\pi}{6}\right)\right) + \arcsin\left(\text{Cos}\left(\frac{7\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\alpha^2, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.12172

$$Ans1 = \begin{bmatrix} .1 = (\mathrm{arcTan}(0) = 0) & .2 = \left(\mathrm{arcSin}\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) & .3 = (\mathrm{arcCos}(1) = 0) \\ .4 = \left(\mathrm{arcSin}(-1) = -\frac{\pi}{2}\right) & .5 = \left(\mathrm{arcCos}\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .6 = (\mathrm{arcSin}(5) = \mathit{undefined}) \\ .7 = \left(\mathrm{arcTan}(1) = \frac{\pi}{4}\right) & .8 = \left(\mathrm{arcCos}\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) & .9 = \left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\mathrm{arcCos}\left(\frac{-1}{2}\right)\right) = \frac{-1}{2}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(-\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .3 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(-\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) \\ .4 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(-\frac{\sqrt{3}}{2}\right)\right) = -\sqrt{3}\right) & .5 = \left(\mathrm{arcCos}\left(\mathrm{Cos}\left(\frac{3\pi}{4}\right)\right) = \frac{3\pi}{4}\right) & .6 = \left(\mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{2\pi}{3}\right)\right) = -\frac{\pi}{6}\right) \\ .7 = \left(\mathrm{arcSin}\left(\mathrm{Sin}\left(-\frac{13\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\mathrm{arcCos}\left(\mathrm{Cos}\left(\frac{13\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(\frac{13\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\mathrm{Csc}\left(\mathrm{arcSin}\left(\frac{1}{2}\right)\right) = 2\right) & .11 = \left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{11\pi}{6}\right)\right)\right) = -\frac{\sqrt{3}}{3}\right) & .12 = \left(\mathrm{ArcSin}\left(\mathrm{Cos}\left(\mathrm{ArcSin}\left(\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, \; , \begin{bmatrix} :) \\ :(\\ \left[\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{-5}{7}\right)\right) = -\frac{2\sqrt{6}}{5}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcTan}\left(\frac{-5}{3}\right)\right) = \frac{3\sqrt{34}}{34}\right) & .3 = \left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\frac{5}{7}\right)\right) = \frac{5\sqrt{6}}{12}\right) \\ .4 = \left(\mathrm{Sec}\left(\mathrm{arcTan}\left(\frac{7}{6}\right)\right) = \frac{\sqrt{85}}{6}\right) & .5 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{1}{6}\right)\right) = \frac{\sqrt{35}}{35}\right) & .6 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(-\frac{\sqrt{7}}{6}\right)\right) = -\frac{\sqrt{7}\sqrt{43}}{43}\right) \\ .7 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{-5}{9}\right)\right) = \frac{2\sqrt{14}}{9}\right) & .8 = \left(\mathrm{Csc}\left(\mathrm{arcSin}\left(\frac{\sqrt{6}}{7}\right)\right) = \frac{7\sqrt{6}}{6}\right) & .9 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(-\frac{\sqrt{5}}{8}\right)\right) = \frac{\sqrt{59}}{8}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{3}{5}\right) + \mathrm{arcSin}\left(\frac{2}{3}\right)\right) = \frac{4\sqrt{5}}{15} + \frac{2}{5}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{1}{3}\right) + \mathrm{arcSin}\left(\frac{-3}{5}\right)\right) = \frac{4}{15} + \frac{2\sqrt{2}}{5}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcCos}\left(\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{8}\right) & .4 = \left(\cos\left(2\,\mathrm{arcSin}\left(\frac{3}{5}\right)\right) = \frac{7}{25}\right) \\ .5 = \left(\mathrm{arcTan}(\mathrm{Cos}(\pi) + \mathrm{Sin}(4\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{11\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(-\frac{\pi}{6}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\,\alpha^2 - 1, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.12173

$$Ans1 = \begin{bmatrix} .1 = \left(\mathrm{arcTan}(\sqrt{3}) = \frac{\pi}{3}\right) & .2 = \left(\mathrm{arcCos}\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) & .3 = \left(\mathrm{arcTan}\left(-\frac{\sqrt{3}}{3}\right) = -\frac{\pi}{6}\right) \\ .4 = (\mathrm{arcSin}(-\sqrt{2}) = \mathit{undefined}) & .5 = \left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .6 = \left(\mathrm{arcCos}\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) \\ .7 = \left(\mathrm{arcSin}\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) & .8 = (\mathrm{arcCos}(-1) = \pi) & .9 = (\mathrm{arcSin}(0) = 0) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\mathrm{arcCos}\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .2 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{-1}{2}\right)\right) = -\sqrt{3}\right) & .3 = \left(\mathrm{Cos}(\mathrm{arcTan}(-1)) = \frac{\sqrt{2}}{2}\right) \\ .4 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(-\frac{\sqrt{3}}{2}\right)\right) = \frac{1}{2}\right) & .5 = \left(\mathrm{arcSin}\left(\mathrm{Sin}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{\pi}{3}\right)\right) = \frac{\pi}{6}\right) \\ .7 = \left(\mathrm{arcSin}\left(\mathrm{Sin}\left(-\frac{5\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\mathrm{arcCos}\left(\mathrm{Cos}\left(\frac{5\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(-\frac{7\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\mathrm{Cot}(\mathrm{arcTan}(-\sqrt{3})) = -\frac{\sqrt{3}}{3}\right) & .11 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{13\pi}{6}\right)\right)\right) = -\sqrt{3}\right) & .12 = \left(\mathrm{ArcCos}\left(\mathrm{Sin}\left(\mathrm{ArcCos}\left(-\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, \; , \begin{bmatrix} :) \\ :(\\ \left[\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{-3}{4}\right)\right) = \frac{\sqrt{7}}{4}\right) & .2 = \left(\mathrm{Cot}\left(\mathrm{arcTan}\left(\frac{-1}{6}\right)\right) = -6\right) & .3 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{5}{8}\right)\right) = \frac{5\sqrt{39}}{39}\right) \\ .4 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{1}{5}\right)\right) = 2\sqrt{6}\right) & .5 = \left(\mathrm{Cos}\left(\mathrm{arcTan}\left(\frac{5}{2}\right)\right) = \frac{2\sqrt{29}}{29}\right) & .6 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\frac{-1}{4}\right)\right) = \frac{4\sqrt{15}}{15}\right) \\ .7 = \left(\mathrm{Sec}\left(\mathrm{arcSin}\left(\frac{\sqrt{2}}{5}\right)\right) = \frac{5\sqrt{23}}{23}\right) & .8 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{\sqrt{7}}{12}\right)\right) = \frac{\sqrt{137}}{12}\right) & .9 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{\sqrt{6}}{7}\right)\right) = \frac{\sqrt{6}\sqrt{55}}{55}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{1}{2}\right) + \mathrm{arcSin}\left(\frac{4}{9}\right)\right) = \frac{\sqrt{3}\sqrt{65}}{18} + \frac{2}{9}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{1}{2}\right) + \mathrm{arcSin}\left(\frac{-4}{5}\right)\right) = \frac{3}{10} + \frac{2\sqrt{3}}{5}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcSin}\left(\frac{2}{5}\right)\right) = \frac{4\sqrt{21}}{25}\right) & .4 = \left(\cos\left(2\,\mathrm{arcSin}\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) \\ .5 = \left(\mathrm{arcTan}\left(\mathrm{Cos}\left(\frac{9\pi}{2}\right) + \mathrm{Sin}\left(\frac{\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{17\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(-\frac{\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\,\alpha^2 - 1, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.12180

$$Ans1=\begin{bmatrix} .1=\left(\arcsin(1)=\frac{\pi}{2}\right) & .2=\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)=\frac{5\pi}{6}\right) & .3=(\arctan(0)=0) \\ .4=\left(\arcsin\left(\frac{1}{2}\right)=\frac{\pi}{6}\right) & .5=\left(\arccos\left(\frac{\sqrt{3}}{2}\right)=\frac{\pi}{6}\right) & .6=(\arcsin(3)=\mathit{undefined}) \\ .7=\left(\arcsin\left(-\frac{\sqrt{2}}{2}\right)=-\frac{\pi}{4}\right) & .8=\left(\arctan(-\sqrt{3})=-\frac{\pi}{3}\right) & .9=(\arccos(-1)=\pi) \end{bmatrix}, \ , \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans2=\begin{bmatrix} .1=(\operatorname{Tan}(\arctan(-\sqrt{3}))=-\sqrt{3}) & .2=\left(\operatorname{Sin}\left(\arctan\left(-\frac{\sqrt{3}}{3}\right)\right)=\frac{-1}{2}\right) & .3=\left(\operatorname{Cos}\left(\arcsin\left(-\frac{\sqrt{2}}{2}\right)\right)=\frac{\sqrt{2}}{2}\right) \\ .4=\left(\operatorname{Tan}\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)\right)=1\right) & .5=\left(\arccos\left(\operatorname{Cos}\left(\frac{3\pi}{4}\right)\right)=\frac{3\pi}{4}\right) & .6=\left(\arcsin\left(\operatorname{Cos}\left(\frac{2\pi}{3}\right)\right)=-\frac{\pi}{6}\right) \\ .7=\left(\arcsin\left(\operatorname{Sin}\left(-\frac{13\pi}{6}\right)\right)=-\frac{\pi}{6}\right) & .8=\left(\arccos\left(\operatorname{Cos}\left(-\frac{3\pi}{4}\right)\right)=\frac{3\pi}{4}\right) & .9=\left(\arctan\left(\operatorname{Tan}\left(\frac{13\pi}{6}\right)\right)=\frac{\pi}{6}\right) \\ .10=\left(\operatorname{Csc}\left(\arctan\left(\frac{\sqrt{3}}{3}\right)\right)=2\right) & .11=\left(\operatorname{Sec}\left(\arccos\left(\operatorname{Sin}\left(-\frac{7\pi}{6}\right)\right)\right)=2\right) & .12=\left(\operatorname{ArcCos}\left(\operatorname{Sin}\left(\operatorname{ArcCos}\left(\frac{-1}{2}\right)\right)\right)=\frac{\pi}{6}\right) \end{bmatrix}, \ , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3=\begin{bmatrix} .1=\left(\operatorname{Cot}\left(\arccos\left(\frac{1}{3}\right)\right)=\frac{\sqrt{2}}{4}\right) & .2=\left(\operatorname{Tan}\left(\arcsin\left(\frac{-1}{2}\right)\right)=-\frac{\sqrt{3}}{3}\right) & .3=\left(\operatorname{Tan}\left(\arccos\left(-\frac{\sqrt{5}}{9}\right)\right)=-\frac{2\sqrt{5}\sqrt{19}}{5}\right) \\ .4=\left(\operatorname{Cos}(\arctan(-4))=\frac{\sqrt{17}}{17}\right) & .5=\left(\operatorname{Sec}\left(\arctan\left(\frac{1}{6}\right)\right)=\frac{\sqrt{37}}{6}\right) & .6=\left(\operatorname{Csc}\left(\arcsin\left(\frac{1}{4}\right)\right)=4\right) \\ .7=\left(\operatorname{Cos}\left(\arcsin\left(-\frac{\sqrt{5}}{9}\right)\right)=\frac{2\sqrt{19}}{9}\right) & .8=\left(\operatorname{Sin}\left(\arctan\left(\frac{\sqrt{2}}{3}\right)\right)=\frac{\sqrt{2}\sqrt{11}}{11}\right) & .9=\left(\operatorname{Sin}\left(\arccos\left(\frac{-5}{9}\right)\right)=\frac{2\sqrt{14}}{9}\right) \end{bmatrix}, \ , \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans4=\begin{bmatrix} .1=\left(\operatorname{Sin}\left(\arccos\left(\frac{3}{5}\right)+\arcsin\left(\frac{-3}{4}\right)\right)=\frac{\sqrt{7}}{5}-\frac{9}{20}\right) & .2=\left(\operatorname{Cos}\left(\arccos\left(\frac{1}{2}\right)+\arcsin\left(\frac{4}{5}\right)\right)=\frac{3}{10}-\frac{2\sqrt{3}}{5}\right) \\ .3=\left(\operatorname{Sin}\left(2\arccos\left(\frac{2}{7}\right)\right)=\frac{12\sqrt{5}}{49}\right) & .4=\left(\cos\left(2\arcsin\left(\frac{2}{3}\right)\right)=\frac{1}{9}\right) \\ .5=\left(\arctan(\operatorname{Cos}(\pi)+\operatorname{Sin}(-2\pi))=-\frac{\pi}{4}\right) & .6=\left(\operatorname{Csc}\left(\arccos\left(\operatorname{Sin}\left(\frac{11\pi}{6}\right)\right)+\arcsin\left(\operatorname{Cos}\left(-\frac{\pi}{3}\right)\right)\right)=2\right) \end{bmatrix}, \ , \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans5=2\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix}M\\U\\T\end{bmatrix}$$

$$Ans6=2\alpha^2-1, \ , \begin{bmatrix}M\\U\\T\end{bmatrix}$$

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TrigonometryExercise5 Answers for No.12256

$$Ans1=\begin{bmatrix} .1=\left(\arccos\left(-\frac{\sqrt{2}}{2}\right)=\frac{3\pi}{4}\right) & .2=\left(\arcsin(1)=\frac{\pi}{2}\right) & .3=\left(\arccos\left(\frac{\sqrt{2}}{2}\right)=\frac{\pi}{4}\right) \\ .4=(\arctan(0)=0) & .5=(\arccos(-1)=\pi) & .6=(\arccos(-5)=\mathit{undefined}) \\ .7=\left(\arctan(1)=\frac{\pi}{4}\right) & .8=\left(\arcsin\left(\frac{-1}{2}\right)=-\frac{\pi}{6}\right) & .9=\left(\arcsin\left(\frac{1}{2}\right)=\frac{\pi}{6}\right) \end{bmatrix}, \ , \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans2=\begin{bmatrix} .1=\left(\cos\left(\arccos\left(\frac{\sqrt{2}}{2}\right)\right)=\frac{\sqrt{2}}{2}\right) & .2=\left(\operatorname{Sin}\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)\right)=\frac{1}{2}\right) & .3=\left(\operatorname{Tan}\left(\arccos\left(\frac{1}{2}\right)\right)=\sqrt{3}\right) \\ .4=\left(\operatorname{Cos}\left(\arcsin\left(-\frac{\sqrt{2}}{2}\right)\right)=\frac{\sqrt{2}}{2}\right) & .5=\left(\arctan\left(\operatorname{Tan}\left(\frac{\pi}{4}\right)\right)=\frac{\pi}{4}\right) & .6=\left(\arccos\left(\operatorname{Sin}\left(-\frac{\pi}{3}\right)\right)=\frac{5\pi}{6}\right) \\ .7=\left(\arcsin\left(\operatorname{Sin}\left(-\frac{13\pi}{6}\right)\right)=-\frac{\pi}{6}\right) & .8=\left(\arccos\left(\operatorname{Cos}\left(\frac{13\pi}{3}\right)\right)=\frac{\pi}{3}\right) & .9=\left(\arctan\left(\operatorname{Tan}\left(\frac{5\pi}{6}\right)\right)=-\frac{\pi}{6}\right) \\ .10=\left(\operatorname{Csc}\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)\right)=\frac{2\sqrt{3}}{3}\right) & .11=\left(\operatorname{Tan}\left(\arcsin\left(\operatorname{Cos}\left(-\frac{2\pi}{3}\right)\right)\right)=-\frac{\sqrt{3}}{3}\right) & .12=\left(\operatorname{ArcSin}\left(\operatorname{Cos}\left(\operatorname{ArcSin}\left(\frac{-1}{2}\right)\right)\right)=\frac{\pi}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3=\begin{bmatrix} .1=\left(\operatorname{Cot}\left(\arccos\left(\frac{1}{5}\right)\right)=\frac{\sqrt{6}}{12}\right) & .2=\left(\operatorname{Csc}\left(\arcsin\left(\frac{-1}{4}\right)\right)=-4\right) & .3=\left(\operatorname{Cos}\left(\arcsin\left(-\frac{\sqrt{7}}{9}\right)\right)=\frac{\sqrt{74}}{9}\right) \\ .4=\left(\operatorname{Sin}(\arctan(-6))=-\frac{6\sqrt{37}}{37}\right) & .5=\left(\operatorname{Sec}\left(\arctan\left(-\frac{\sqrt{2}}{5}\right)\right)=\frac{3\sqrt{3}}{5}\right) & .6=\left(\operatorname{Tan}\left(\arccos\left(-\frac{\sqrt{3}}{4}\right)\right)=-\frac{\sqrt{13}\sqrt{3}}{3}\right) \\ .7=\left(\operatorname{Sin}\left(\arccos\left(\frac{-2}{7}\right)\right)=\frac{3\sqrt{5}}{7}\right) & .8=\left(\operatorname{Cos}(\arctan(5))=\frac{\sqrt{26}}{26}\right) & .9=\left(\operatorname{Tan}\left(\arcsin\left(\frac{5}{9}\right)\right)=\frac{5\sqrt{14}}{28}\right) \end{bmatrix}, \ , \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans4=\begin{bmatrix} .1=\left(\operatorname{Sin}\left(\arccos\left(\frac{1}{2}\right)+\arcsin\left(\frac{3}{7}\right)\right)=\frac{\sqrt{3}\sqrt{10}}{7}+\frac{3}{14}\right) & .2=\left(\operatorname{Cos}\left(\arccos\left(\frac{5}{7}\right)+\arcsin\left(\frac{-5}{6}\right)\right)=\frac{5\sqrt{11}}{42}+\frac{5\sqrt{6}}{21}\right) \\ .3=\left(\operatorname{Sin}\left(2\arcsin\left(\frac{1}{6}\right)\right)=\frac{\sqrt{35}}{18}\right) & .4=\left(\cos\left(2\arcsin\left(\frac{1}{3}\right)\right)=\frac{7}{9}\right) \\ .5=\left(\arctan\left(\operatorname{Cos}(5\pi)+\operatorname{Sin}\left(-\frac{11\pi}{2}\right)\right)=0\right) & .6=\left(\operatorname{Csc}\left(\arccos\left(\operatorname{Sin}\left(\frac{5\pi}{6}\right)\right)+\arcsin\left(\operatorname{Cos}\left(\frac{4\pi}{3}\right)\right)\right)=2\right) \end{bmatrix}, \ , \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans5=2\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix}M\\U\\T\end{bmatrix}$$

$$Ans6=1-2\alpha^2, \ , \begin{bmatrix}M\\U\\T\end{bmatrix}$$

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TrigonometryExercise5 Answers for No.12278

$$Ans1 = \begin{bmatrix} .1 = \left(\arctan(-1) = -\frac{\pi}{4}\right) & .2 = \left(\arctan(\sqrt{3}) = \frac{\pi}{3}\right) & .3 = \left(\arcsin\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \\ .4 = \left(\arccos\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}\right) & .5 = \left(\arccos\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) & .6 = (\arcsin(2) = \mathit{undefined}) \\ .7 = \left(\arcsin\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) & .8 = \left(\arcsin(1) = \frac{\pi}{2}\right) & .9 = \left(\arccos(0) = \frac{\pi}{2}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}}{2}\right) & .2 = \left(\mathrm{Sin}(\arctan(\sqrt{3})) = \frac{\sqrt{3}}{2}\right) & .3 = \left(\mathrm{Cos}(\arctan(-1)) = \frac{\sqrt{2}}{2}\right) \\ .4 = \left(\mathrm{Tan}\left(\arcsin\left(\frac{-1}{2}\right)\right) = -\frac{\sqrt{3}}{3}\right) & .5 = \left(\arctan\left(\mathrm{Tan}\left(-\frac{\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .6 = \left(\arcsin\left(\mathrm{Cos}\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) \\ .7 = \left(\arcsin\left(\mathrm{Sin}\left(-\frac{7\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arccos\left(\mathrm{Cos}\left(-\frac{2\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\arctan\left(\mathrm{Tan}\left(\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\mathrm{Cot}\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) & .11 = \left(\mathrm{Csc}\left(\arccos\left(\mathrm{Sin}\left(-\frac{11\pi}{6}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) & .12 = \left(\mathrm{ArcCos}\left(\mathrm{Sin}\left(\mathrm{ArcCos}\left(\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \begin{bmatrix} \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix} \end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Csc}\left(\arcsin\left(\frac{-5}{6}\right)\right) = \frac{-6}{5}\right) & .2 = \left(\mathrm{Cos}\left(\arctan\left(-\frac{\sqrt{7}}{2}\right)\right) = \frac{2\sqrt{11}}{11}\right) & .3 = \left(\mathrm{Sec}\left(\arctan\left(\frac{-6}{5}\right)\right) = \frac{\sqrt{61}}{5}\right) \\ .4 = \left(\mathrm{Tan}\left(\arccos\left(\frac{-1}{5}\right)\right) = -2\sqrt{6}\right) & .5 = \left(\mathrm{Tan}\left(\arcsin\left(\frac{3}{5}\right)\right) = \frac{3}{4}\right) & .6 = \left(\mathrm{Sin}\left(\arctan\left(\frac{5}{2}\right)\right) = \frac{5\sqrt{29}}{29}\right) \\ .7 = \left(\mathrm{Cot}\left(\arccos\left(-\frac{\sqrt{3}}{8}\right)\right) = -\frac{\sqrt{3}\sqrt{61}}{61}\right) & .8 = \left(\mathrm{Sin}\left(\arccos\left(\frac{1}{5}\right)\right) = \frac{2\sqrt{6}}{5}\right) & .9 = \left(\mathrm{Cos}\left(\arcsin\left(-\frac{\sqrt{7}}{10}\right)\right) = \frac{\sqrt{93}}{10}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arccos\left(\frac{2}{3}\right) + \arcsin\left(\frac{1}{6}\right)\right) = \frac{\sqrt{35}\sqrt{5}}{18} + \frac{1}{9}\right) & .2 = \left(\mathrm{Cos}\left(\arccos\left(\frac{1}{5}\right) + \arcsin\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{10} + \frac{\sqrt{6}}{5}\right) \\ .3 = \left(\mathrm{Sin}\left(2\arcsin\left(\frac{3}{8}\right)\right) = \frac{3\sqrt{55}}{32}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{5}{8}\right)\right) = \frac{7}{32}\right) \\ .5 = \left(\arctan(\mathrm{Cos}(5\pi) + \mathrm{Sin}(5\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\mathrm{Sec}\left(\arccos\left(\mathrm{Sin}\left(\frac{7\pi}{6}\right)\right) + \arcsin\left(\mathrm{Cos}\left(\frac{11\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\alpha^2, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.12482

$$Ans1 = \begin{bmatrix} .1 = \left(\arcsin\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .2 = \left(\arctan\left(\frac{\sqrt{3}}{3}\right) = \frac{\pi}{6}\right) & .3 = (\arcsin(0) = 0) \\ .4 = \left(\arccos\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) & .5 = \left(\arcsin\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) & .6 = (\arctan(0) = 0) \\ .7 = (\arcsin(\sqrt{2}) = \mathit{undefined}) & .8 = \left(\arccos\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) & .9 = (\arccos(1) = 0) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .2 = \left(\mathrm{Cos}\left(\arcsin\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .3 = \left(\mathrm{Tan}\left(\arcsin\left(-\frac{\sqrt{2}}{2}\right)\right) = -1\right) \\ .4 = \left(\mathrm{Sin}(\arctan(1)) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\arctan\left(\mathrm{Tan}\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\arccos\left(\mathrm{Sin}\left(-\frac{\pi}{4}\right)\right) = \frac{3\pi}{4}\right) \\ .7 = \left(\arcsin\left(\mathrm{Sin}\left(-\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\arccos\left(\mathrm{Cos}\left(-\frac{\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\arctan\left(\mathrm{Tan}\left(-\frac{11\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\mathrm{Csc}\left(\arccos\left(\frac{-1}{2}\right)\right) = \frac{2\sqrt{3}}{3}\right) & .11 = \left(\mathrm{Tan}\left(\arcsin\left(\mathrm{Cos}\left(-\frac{\pi}{4}\right)\right)\right) = 1\right) & .12 = \left(\mathrm{ArcSin}\left(\mathrm{Cos}\left(\mathrm{ArcSin}\left(\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \begin{bmatrix} \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix} \end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Sin}(\arctan(4)) = \frac{4\sqrt{17}}{17}\right) & .2 = \left(\mathrm{Tan}\left(\arcsin\left(-\frac{\sqrt{3}}{4}\right)\right) = -\frac{\sqrt{13}\sqrt{3}}{13}\right) & .3 = \left(\mathrm{Tan}\left(\arccos\left(\frac{\sqrt{2}}{7}\right)\right) = \frac{\sqrt{47}\sqrt{2}}{2}\right) \\ .4 = \left(\mathrm{Sec}\left(\arcsin\left(\frac{-4}{5}\right)\right) = \frac{5}{3}\right) & .5 = \left(\mathrm{Cos}\left(\arctan\left(\frac{\sqrt{7}}{5}\right)\right) = \frac{5\sqrt{2}}{8}\right) & .6 = \left(\mathrm{Csc}\left(\arccos\left(\frac{-5}{6}\right)\right) = \frac{6\sqrt{11}}{11}\right) \\ .7 = \left(\mathrm{Cot}\left(\arctan\left(\frac{-6}{5}\right)\right) = \frac{-5}{6}\right) & .8 = \left(\mathrm{Sin}\left(\arccos\left(\frac{3}{5}\right)\right) = \frac{4}{5}\right) & .9 = \left(\mathrm{Cos}\left(\arcsin\left(\frac{3}{7}\right)\right) = \frac{2\sqrt{10}}{7}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arccos\left(\frac{5}{9}\right) + \arcsin\left(\frac{1}{2}\right)\right) = \frac{\sqrt{14}\sqrt{3}}{9} + \frac{5}{18}\right) & .2 = \left(\mathrm{Cos}\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .3 = \left(\mathrm{Sin}\left(2\arccos\left(\frac{3}{7}\right)\right) = \frac{12\sqrt{10}}{49}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{2}{5}\right)\right) = \frac{17}{25}\right) \\ .5 = \left(\arctan(\mathrm{Cos}(2\pi) + \mathrm{Sin}(-2\pi)) = \frac{\pi}{4}\right) & .6 = \left(\mathrm{Csc}\left(\arccos\left(\mathrm{Sin}\left(-\frac{5\pi}{6}\right)\right) + \arcsin\left(\mathrm{Cos}\left(\frac{11\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\alpha^2, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.12586

$$Ans1=\begin{bmatrix} .1=\left(\mathrm{arcSin}\left(\frac{1}{2}\right)=\frac{\pi}{6}\right) & .2=\left(\mathrm{arcSin}(1)=\frac{\pi}{2}\right) & .3=\left(\mathrm{arcTan}(-\sqrt{3})=-\frac{\pi}{3}\right)\\ .4=\left(\mathrm{arcSin}\left(-\frac{\sqrt{3}}{2}\right)=-\frac{\pi}{3}\right) & .5=(\mathrm{arcSin}(-\sqrt{2})=\mathit{undefined}) & .6=\left(\mathrm{arcCos}\left(-\frac{\sqrt{2}}{2}\right)=\frac{3\pi}{4}\right)\\ .7=(\mathrm{arcCos}(-1)=\pi) & .8=(\mathrm{arcTan}(0)=0) & .9=\left(\mathrm{arcCos}\left(\frac{\sqrt{2}}{2}\right)=\frac{\pi}{4}\right)\end{bmatrix},\ ,\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans2=\begin{bmatrix} .1=(\mathrm{Tan}(\mathrm{arcTan}(-1))=-1) & .2=\left(\mathrm{Tan}\left(\mathrm{arcCos}\left(-\frac{\sqrt{2}}{2}\right)\right)=-1\right) & .3=\left(\mathrm{Cos}\left(\mathrm{arcTan}\left(-\frac{\sqrt{3}}{3}\right)\right)=\frac{\sqrt{3}}{2}\right)\\ .4=\left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{\sqrt{3}}{2}\right)\right)=\frac{1}{2}\right) & .5=\left(\mathrm{arcTan}\left(\mathrm{Tan}\left(\frac{\pi}{6}\right)\right)=\frac{\pi}{6}\right) & .6=\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{\pi}{4}\right)\right)=\frac{3\pi}{4}\right)\\ .7=\left(\mathrm{arcSin}\left(\mathrm{Sin}\left(-\frac{17\pi}{6}\right)\right)=-\frac{\pi}{6}\right) & .8=\left(\mathrm{arcCos}\left(\mathrm{Cos}\left(-\frac{\pi}{4}\right)\right)=\frac{\pi}{4}\right) & .9=\left(\mathrm{arcTan}\left(\mathrm{Tan}\left(-\frac{17\pi}{6}\right)\right)=\frac{\pi}{6}\right)\\ .10=\left(\mathrm{Cot}(\mathrm{arcTan}(\sqrt{3}))=\frac{\sqrt{3}}{3}\right) & .11=\left(\mathrm{Cot}\left(\mathrm{arcSin}\left(\mathrm{Cos}\left(-\frac{5\pi}{6}\right)\right)\right)=-\frac{\sqrt{3}}{3}\right) & .12=\left(\mathrm{ArcCos}\left(\mathrm{Sin}\left(\mathrm{ArcCos}\left(\frac{1}{2}\right)\right)\right)=\frac{\pi}{6}\right)\end{bmatrix},\ ,\begin{bmatrix}:)\\:(\\ \begin{bmatrix}\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}\end{bmatrix}\\:)\\:(\end{bmatrix}$$

$$Ans3=\begin{bmatrix} .1=\left(\mathrm{Cos}\left(\mathrm{arcTan}\left(\frac{-4}{3}\right)\right)=\frac{3}{5}\right) & .2=\left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{2}{7}\right)\right)=\frac{2\sqrt{53}}{53}\right) & .3=\left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\frac{4}{5}\right)\right)=\frac{5}{3}\right)\\ .4=\left(\mathrm{Tan}\left(\mathrm{arcSin}\left(-\frac{\sqrt{3}}{8}\right)\right)=-\frac{\sqrt{3}\sqrt{61}}{61}\right) & .5=\left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{\sqrt{7}}{10}\right)\right)=\frac{\sqrt{93}}{10}\right) & .6=\left(\mathrm{Sec}\left(\mathrm{arcTan}\left(\frac{\sqrt{5}}{7}\right)\right)=\frac{3\sqrt{6}}{7}\right)\\ .7=\left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{-5}{7}\right)\right)=-\frac{2\sqrt{6}}{5}\right) & .8=\left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{2}{3}\right)\right)=\frac{\sqrt{5}}{3}\right) & .9=\left(\mathrm{Cot}\left(\mathrm{arcSin}\left(\frac{-4}{7}\right)\right)=-\frac{\sqrt{33}}{4}\right)\end{bmatrix},\ ,\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans4=\begin{bmatrix} .1=\left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{1}{2}\right)+\mathrm{arcSin}\left(\frac{5}{8}\right)\right)=\frac{\sqrt{3}\sqrt{39}}{16}+\frac{5}{16}\right) & .2=\left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{4}{9}\right)+\mathrm{arcSin}\left(\frac{-5}{7}\right)\right)=\frac{8\sqrt{6}}{63}+\frac{5\sqrt{65}}{63}\right)\\ .3=\left(\mathrm{Sin}\left(2\,\mathrm{arcSin}\left(\frac{5}{6}\right)\right)=\frac{5\sqrt{11}}{18}\right) & .4=\left(\cos\left(2\,\mathrm{arcCos}\left(\frac{1}{2}\right)\right)=\frac{-1}{2}\right)\\ .5=\left(\mathrm{arcTan}(\mathrm{Cos}(3\pi)+\mathrm{Sin}(5\pi))=-\frac{\pi}{4}\right) & .6=\left(\mathrm{Sec}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{11\pi}{6}\right)\right)+\mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{5\pi}{3}\right)\right)\right)=-\frac{2\sqrt{3}}{3}\right)\end{bmatrix},\ ,\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans5=2\,\alpha\sqrt{1-\alpha^2},\ ,\begin{bmatrix}M\\U\\T\end{bmatrix}$$

$$Ans6=2\,\alpha^2-1,\ ,\begin{bmatrix}M\\U\\T\end{bmatrix}$$

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TrigonometryExercise5 Answers for No.12677

$$Ans1=\begin{bmatrix} .1=\left(\mathrm{arcCos}(0)=\frac{\pi}{2}\right) & .2=\left(\mathrm{arcCos}\left(\frac{\sqrt{3}}{2}\right)=\frac{\pi}{6}\right) & .3=\left(\mathrm{arcCos}\left(\frac{-1}{2}\right)=\frac{2\pi}{3}\right)\\ .4=\left(\mathrm{arcTan}(1)=\frac{\pi}{4}\right) & .5=\left(\mathrm{arcSin}(1)=\frac{\pi}{2}\right) & .6=(\mathrm{arcCos}(-\sqrt{3})=\mathit{undefined})\\ .7=\left(\mathrm{arcSin}\left(\frac{1}{2}\right)=\frac{\pi}{6}\right) & .8=\left(\mathrm{arcSin}\left(-\frac{\sqrt{3}}{2}\right)=-\frac{\pi}{3}\right) & .9=(\mathrm{arcTan}(0)=0)\end{bmatrix},\ ,\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans2=\begin{bmatrix} .1=\left(\mathrm{Sin}\left(\mathrm{arcSin}\left(\frac{-1}{2}\right)\right)=\frac{-1}{2}\right) & .2=\left(\mathrm{Cos}\left(\mathrm{arcTan}\left(-\frac{\sqrt{3}}{3}\right)\right)=\frac{\sqrt{3}}{2}\right) & .3=\left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{-1}{2}\right)\right)=\frac{\sqrt{3}}{2}\right)\\ .4=\left(\mathrm{Tan}\left(\mathrm{arcSin}\left(-\frac{\sqrt{2}}{2}\right)\right)=-1\right) & .5=\left(\mathrm{arcSin}\left(\mathrm{Sin}\left(\frac{\pi}{6}\right)\right)=\frac{\pi}{6}\right) & .6=\left(\mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{5\pi}{6}\right)\right)=-\frac{\pi}{3}\right)\\ .7=\left(\mathrm{arcSin}\left(\mathrm{Sin}\left(-\frac{11\pi}{6}\right)\right)=\frac{\pi}{6}\right) & .8=\left(\mathrm{arcCos}\left(\mathrm{Cos}\left(\frac{11\pi}{3}\right)\right)=\frac{\pi}{3}\right) & .9=\left(\mathrm{arcTan}\left(\mathrm{Tan}\left(-\frac{11\pi}{6}\right)\right)=\frac{\pi}{6}\right)\\ .10=(\mathrm{Csc}(\mathrm{arcTan}(1))=\sqrt{2}) & .11=\left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{11\pi}{6}\right)\right)\right)=-\sqrt{3}\right) & .12=\left(\mathrm{ArcCos}\left(\mathrm{Sin}\left(\mathrm{ArcCos}\left(-\frac{\sqrt{3}}{2}\right)\right)\right)=\frac{\pi}{3}\right)\end{bmatrix},\ ,\begin{bmatrix}:)\\:(\\ \begin{bmatrix}\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}\end{bmatrix}\\:)\\:(\end{bmatrix}$$

$$Ans3=\begin{bmatrix} .1=\left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{-2}{5}\right)\right)=-\frac{2\sqrt{21}}{21}\right) & .2=\left(\mathrm{Csc}(\mathrm{arcTan}(-7))=-\frac{5\sqrt{2}}{7}\right) & .3=\left(\mathrm{Sin}(\mathrm{arcTan}(-\sqrt{7}))=-\frac{\sqrt{7}\sqrt{2}}{4}\right)\\ .4=\left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{1}{6}\right)\right)=\frac{\sqrt{35}}{6}\right) & .5=\left(\mathrm{Cot}\left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{4}\right)\right)=\frac{\sqrt{13}\sqrt{3}}{3}\right) & .6=\left(\mathrm{Cos}\left(\mathrm{arcTan}\left(\frac{7}{4}\right)\right)=\frac{4\sqrt{65}}{65}\right)\\ .7=\left(\mathrm{Tan}\left(\mathrm{arcCos}\left(-\frac{\sqrt{7}}{9}\right)\right)=-\frac{\sqrt{7}\sqrt{74}}{7}\right) & .8=\left(\mathrm{Sec}\left(\mathrm{arcCos}\left(\frac{-2}{3}\right)\right)=\frac{-3}{2}\right) & .9=\left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{3}{7}\right)\right)=\frac{2\sqrt{10}}{7}\right)\end{bmatrix},\ ,\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans4=\begin{bmatrix} .1=\left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{1}{2}\right)+\mathrm{arcSin}\left(\frac{-2}{3}\right)\right)=\frac{\sqrt{3}\sqrt{5}}{6}-\frac{1}{3}\right) & .2=\left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{3}{7}\right)+\mathrm{arcSin}\left(\frac{1}{3}\right)\right)=\frac{2\sqrt{2}}{7}-\frac{2\sqrt{10}}{21}\right)\\ .3=\left(\mathrm{Sin}\left(2\,\mathrm{arcSin}\left(\frac{1}{2}\right)\right)=\frac{\sqrt{3}}{2}\right) & .4=\left(\cos\left(2\,\mathrm{arcCos}\left(\frac{1}{2}\right)\right)=\frac{-1}{2}\right)\\ .5=\left(\mathrm{arcTan}(\mathrm{Cos}(\pi)+\mathrm{Sin}(\pi))=-\frac{\pi}{4}\right) & .6=\left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{5\pi}{6}\right)\right)+\mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{5\pi}{3}\right)\right)\right)=-\sqrt{3}\right)\end{bmatrix},\ ,\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans5=2\,\alpha\sqrt{1-\alpha^2},\ ,\begin{bmatrix}M\\U\\T\end{bmatrix}$$

$$Ans6=1-2\,\alpha^2,\ ,\begin{bmatrix}M\\U\\T\end{bmatrix}$$

TrigonometryExercise5 Answers for No.13490

$$Ans1 = \begin{bmatrix} .1 = \left(\arccos\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) & .2 = \left(\arcsin\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .3 = (\arccos(1) = 0) \\ .4 = \left(\arctan(-\sqrt{3}) = -\frac{\pi}{3}\right) & .5 = \left(\arcsin(-1) = -\frac{\pi}{2}\right) & .6 = \left(\arccos\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) \\ .7 = \left(\arctan(1) = \frac{\pi}{4}\right) & .8 = (\arcsin(-\sqrt{3}) = \mathit{undefined}) & .9 = \left(\arcsin\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\operatorname{Sin}\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .2 = \left(\operatorname{Cos}\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .3 = \left(\operatorname{Tan}\left(\arccos\left(\frac{1}{2}\right)\right) = \sqrt{3}\right) \\ .4 = \left(\operatorname{Sin}\left(\arccos\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\arccos\left(\operatorname{Cos}\left(\frac{3\pi}{4}\right)\right) = \frac{3\pi}{4}\right) & .6 = \left(\arccos\left(\operatorname{Sin}\left(-\frac{\pi}{6}\right)\right) = \frac{2\pi}{3}\right) \\ .7 = \left(\arcsin\left(\operatorname{Sin}\left(-\frac{7\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arccos\left(\operatorname{Cos}\left(\frac{4\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\arctan\left(\operatorname{Tan}\left(\frac{11\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\operatorname{Sec}\left(\arccos\left(\frac{-1}{2}\right)\right) = -2\right) & .11 = \left(\operatorname{Cot}\left(\arccos\left(\operatorname{Sin}\left(-\frac{17\pi}{6}\right)\right)\right) = -\frac{\sqrt{3}}{3}\right) & .12 = \left(\operatorname{ArcSin}\left(\operatorname{Cos}\left(\operatorname{ArcSin}\left(-\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \ , \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\operatorname{Csc}\left(\arcsin\left(-\frac{\sqrt{5}}{6}\right)\right) = -\frac{6\sqrt{5}}{5}\right) & .2 = \left(\operatorname{Tan}\left(\arcsin\left(\frac{3}{4}\right)\right) = \frac{3\sqrt{7}}{7}\right) & .3 = \left(\operatorname{Sin}\left(\arccos\left(\frac{1}{3}\right)\right) = \frac{2\sqrt{2}}{3}\right) \\ .4 = \left(\operatorname{Sin}\left(\arctan\left(\frac{-3}{2}\right)\right) = -\frac{3\sqrt{13}}{13}\right) & .5 = \left(\operatorname{Cos}\left(\arcsin\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .6 = \left(\operatorname{Tan}\left(\arccos\left(\frac{\sqrt{3}}{8}\right)\right) = \frac{\sqrt{3}\sqrt{61}}{3}\right) \\ .7 = \left(\operatorname{Cot}\left(\arccos\left(\frac{-1}{5}\right)\right) = -\frac{\sqrt{6}}{12}\right) & .8 = \left(\operatorname{Cos}\left(\arctan\left(\frac{\sqrt{7}}{4}\right)\right) = \frac{4\sqrt{23}}{23}\right) & .9 = (\operatorname{Sec}(\arctan(5)) = \sqrt{26}) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\operatorname{Sin}\left(\arccos\left(\frac{3}{7}\right) + \arcsin\left(\frac{2}{5}\right)\right) = \frac{2\sqrt{10}\sqrt{21}}{35} + \frac{6}{35}\right) & .2 = \left(\operatorname{Cos}\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{-3}{4}\right)\right) = \frac{\sqrt{7}}{8} + \frac{3\sqrt{3}}{8}\right) \\ .3 = \left(\operatorname{Sin}\left(2\arccos\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) \\ .5 = \left(\arctan(\operatorname{Cos}(\pi) + \operatorname{Sin}(4\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\operatorname{Sec}\left(\arccos\left(\operatorname{Sin}\left(\frac{13\pi}{6}\right)\right) + \arcsin\left(\operatorname{Cos}\left(\frac{8\pi}{3}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\alpha^2, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.13500

$$Ans1 = \begin{bmatrix} .1 = (\arctan(0) = 0) & .2 = \left(\arccos\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .3 = (\arccos(1) = 0) \\ .4 = \left(\arccos\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .5 = \left(\arcsin\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .6 = \left(\arcsin(-1) = -\frac{\pi}{2}\right) \\ .7 = \left(\arcsin\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) & .8 = (\arccos(\sqrt{2}) = \mathit{undefined}) & .9 = \left(\arctan(-\sqrt{3}) = -\frac{\pi}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\operatorname{Sin}\left(\arcsin\left(\frac{-1}{2}\right)\right) = \frac{-1}{2}\right) & .2 = \left(\operatorname{Cos}(\arctan(\sqrt{3})) = \frac{1}{2}\right) & .3 = \left(\operatorname{Tan}\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}}{3}\right) \\ .4 = \left(\operatorname{Sin}(\arctan(-1)) = -\frac{\sqrt{2}}{2}\right) & .5 = \left(\arccos\left(\operatorname{Cos}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\arcsin\left(\operatorname{Cos}\left(\frac{3\pi}{4}\right)\right) = -\frac{\pi}{4}\right) \\ .7 = \left(\arcsin\left(\operatorname{Sin}\left(\frac{17\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arccos\left(\operatorname{Cos}\left(-\frac{\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\arctan\left(\operatorname{Tan}\left(\frac{11\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\operatorname{Cot}\left(\arcsin\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}}{3}\right) & .11 = \left(\operatorname{Cot}\left(\arcsin\left(\operatorname{Cos}\left(\frac{7\pi}{3}\right)\right)\right) = \sqrt{3}\right) & .12 = \left(\operatorname{ArcSin}\left(\operatorname{Cos}\left(\operatorname{ArcSin}\left(\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, \ , \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\operatorname{Tan}\left(\arccos\left(\frac{-5}{7}\right)\right) = -\frac{2\sqrt{6}}{5}\right) & .2 = \left(\operatorname{Sec}\left(\arcsin\left(\frac{5}{7}\right)\right) = \frac{7\sqrt{6}}{12}\right) & .3 = \left(\operatorname{Cos}\left(\arcsin\left(\frac{-5}{8}\right)\right) = \frac{\sqrt{39}}{8}\right) \\ .4 = \left(\operatorname{Tan}\left(\arcsin\left(-\frac{\sqrt{7}}{9}\right)\right) = -\frac{\sqrt{7}\sqrt{74}}{74}\right) & .5 = \left(\operatorname{Sin}\left(\arccos\left(\frac{5}{7}\right)\right) = \frac{2\sqrt{6}}{7}\right) & .6 = \left(\operatorname{Sin}\left(\arctan\left(\frac{7}{2}\right)\right) = \frac{7\sqrt{53}}{53}\right) \\ .7 = \left(\operatorname{Cot}\left(\arccos\left(\frac{\sqrt{5}}{9}\right)\right) = \frac{\sqrt{5}\sqrt{19}}{38}\right) & .8 = \left(\operatorname{Csc}\left(\arctan\left(-\frac{\sqrt{5}}{4}\right)\right) = -\frac{\sqrt{5}\sqrt{21}}{5}\right) & .9 = \left(\operatorname{Cos}\left(\arctan\left(\frac{-1}{5}\right)\right) = \frac{5\sqrt{26}}{26}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\operatorname{Sin}\left(\arccos\left(\frac{3}{8}\right) + \arcsin\left(\frac{2}{7}\right)\right) = \frac{3\sqrt{55}\sqrt{5}}{56} + \frac{3}{28}\right) & .2 = \left(\operatorname{Cos}\left(\arccos\left(\frac{3}{7}\right) + \arcsin\left(\frac{-3}{4}\right)\right) = \frac{3\sqrt{7}}{28} + \frac{3\sqrt{10}}{14}\right) \\ .3 = \left(\operatorname{Sin}\left(2\arccos\left(\frac{1}{3}\right)\right) = \frac{4\sqrt{2}}{9}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{1}{2}\right)\right) = \frac{-1}{2}\right) \\ .5 = \left(\arctan\left(\operatorname{Cos}(5\pi) + \operatorname{Sin}\left(\frac{5\pi}{2}\right)\right) = 0\right) & .6 = \left(\operatorname{Cot}\left(\arccos\left(\operatorname{Sin}\left(-\frac{7\pi}{6}\right)\right) + \arcsin\left(\operatorname{Cos}\left(-\frac{\pi}{6}\right)\right)\right) = -\frac{\sqrt{3}}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\alpha^2, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.13637

$$Ans1 = \begin{bmatrix} .1 = (\text{arcTan}(0) = 0) & .2 = \left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .3 = (\text{arcSin}(-5) = \textit{undefined}) \\ .4 = \left(\text{arcTan}(\sqrt{3}) = \frac{\pi}{3}\right) & .5 = \left(\text{arcSin}(-1) = -\frac{\pi}{2}\right) & .6 = \left(\text{arcCos}\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) \\ .7 = \left(\text{arcSin}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .8 = \left(\text{arcSin}\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) & .9 = \left(\text{arcCos}(0) = \frac{\pi}{2}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcSin}\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) & .2 = \left(\text{Cos}\left(\text{arcSin}\left(-\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .3 = \left(\text{Tan}\left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right)\right) = -1\right) \\ .4 = \left(\text{Sin}(\text{arcTan}(\sqrt{3})) = \frac{\sqrt{3}}{2}\right) & .5 = \left(\text{arcCos}\left(\text{Cos}\left(\frac{5\pi}{6}\right)\right) = \frac{5\pi}{6}\right) & .6 = \left(\text{arcCos}\left(\text{Sin}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{3}\right) \\ .7 = \left(\text{arcSin}\left(\text{Sin}\left(-\frac{5\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\text{arcCos}\left(\text{Cos}\left(-\frac{\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\text{arcTan}\left(\text{Tan}\left(-\frac{17\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = (\text{Csc}(\text{arcTan}(-1)) = -\sqrt{2}) & .11 = \left(\text{Csc}\left(\text{arcSin}\left(\text{Cos}\left(-\frac{2\pi}{3}\right)\right)\right) = -2\right) & .12 = \left(\text{ArcCos}\left(\text{Sin}\left(\text{ArcCos}\left(\frac{1}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \ , \begin{bmatrix} \frac{:)}{:(} \\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ \frac{:)}{:(} \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{4}{5}\right)\right) = \frac{3}{5}\right) & .2 = \left(\text{Sec}\left(\text{arcSin}\left(\frac{\sqrt{5}}{8}\right)\right) = \frac{8\sqrt{59}}{59}\right) & .3 = \left(\text{Sin}\left(\text{arcTan}\left(\frac{-2}{7}\right)\right) = -\frac{2\sqrt{53}}{53}\right) \\ .4 = \left(\text{Csc}\left(\text{arcCos}\left(-\frac{\sqrt{7}}{11}\right)\right) = \frac{11\sqrt{114}}{114}\right) & .5 = \left(\text{Cos}\left(\text{arcTan}\left(-\frac{\sqrt{3}}{4}\right)\right) = \frac{4\sqrt{19}}{19}\right) & .6 = \left(\text{Cot}\left(\text{arcTan}\left(\frac{7}{3}\right)\right) = \frac{3}{7}\right) \\ .7 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{5}{6}\right)\right) = \frac{\sqrt{11}}{6}\right) & .8 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{-3}{4}\right)\right) = -\frac{\sqrt{7}}{3}\right) & .9 = \left(\text{Tan}\left(\text{arcSin}\left(\frac{-2}{7}\right)\right) = -\frac{2\sqrt{5}}{15}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{1}{2}\right) + \text{arcSin}\left(\frac{-1}{5}\right)\right) = \frac{\sqrt{6}\sqrt{3}}{5} - \frac{1}{10}\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{4}{5}\right) + \text{arcSin}\left(\frac{2}{3}\right)\right) = \frac{4\sqrt{5}}{15} - \frac{2}{5}\right) \\ .3 = \left(\text{Sin}\left(2\,\text{arcCos}\left(\frac{5}{6}\right)\right) = \frac{5\sqrt{11}}{18}\right) & .4 = \left(\cos\left(2\,\text{arcSin}\left(\frac{2}{3}\right)\right) = \frac{1}{9}\right) \\ .5 = \left(\text{arcTan}(\text{Cos}(5\pi) + \text{Sin}(-3\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\text{Cot}\left(\text{arcCos}\left(\text{Sin}\left(\frac{17\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(\frac{8\pi}{3}\right)\right)\right) = \sqrt{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\,\alpha^2, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645101

$$Ans1 = \begin{bmatrix} .1 = \left(\text{arcSin}\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) & .2 = \left(\text{arcSin}\left(\frac{1}{2}\right) = \frac{\pi}{6}\right) & .3 = (\text{arcCos}(-1) = \pi) \\ .4 = \left(\text{arcCos}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .5 = \left(\text{arcTan}\left(-\frac{\sqrt{3}}{3}\right) = -\frac{\pi}{6}\right) & .6 = \left(\text{arcTan}(1) = \frac{\pi}{4}\right) \\ .7 = (\text{arcSin}(0) = 0) & .8 = \left(\text{arcCos}\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}\right) & .9 = (\text{arcSin}(5) = \textit{undefined}) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\text{arcCos}\left(\frac{-1}{2}\right)\right) = \frac{-1}{2}\right) & .2 = \left(\text{Tan}\left(\text{arcSin}\left(-\frac{\sqrt{3}}{2}\right)\right) = -\sqrt{3}\right) & .3 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{1}{2}\right) \\ .4 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\text{arcCos}\left(\text{Cos}\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\text{arcCos}\left(\text{Sin}\left(-\frac{\pi}{3}\right)\right) = \frac{5\pi}{6}\right) \\ .7 = \left(\text{arcSin}\left(\text{Sin}\left(\frac{17\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\text{arcCos}\left(\text{Cos}\left(\frac{11\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\text{arcTan}\left(\text{Tan}\left(-\frac{7\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\text{Csc}\left(\text{arcSin}\left(\frac{-1}{2}\right)\right) = -2\right) & .11 = \left(\text{Csc}\left(\text{arcCos}\left(\text{Sin}\left(-\frac{11\pi}{6}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) & .12 = \left(\text{ArcCos}\left(\text{Sin}\left(\text{ArcCos}\left(\frac{1}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \ , \begin{bmatrix} \frac{:)}{:(} \\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ \frac{:)}{:(} \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Sec}\left(\text{arcTan}\left(\frac{-4}{7}\right)\right) = \frac{\sqrt{65}}{7}\right) & .2 = \left(\text{Tan}\left(\text{arcSin}\left(\frac{-1}{2}\right)\right) = -\frac{\sqrt{3}}{3}\right) & .3 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{1}{6}\right)\right) = \frac{\sqrt{35}}{6}\right) \\ .4 = \left(\text{Sin}\left(\text{arcTan}\left(\frac{1}{7}\right)\right) = \frac{\sqrt{2}}{10}\right) & .5 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{-4}{7}\right)\right) = -\frac{\sqrt{33}}{4}\right) & .6 = \left(\text{Cos}\left(\text{arcSin}\left(-\frac{\sqrt{2}}{5}\right)\right) = \frac{\sqrt{23}}{5}\right) \\ .7 = \left(\text{Cot}\left(\text{arcCos}\left(\frac{\sqrt{3}}{8}\right)\right) = \frac{\sqrt{3}\sqrt{61}}{61}\right) & .8 = \left(\text{Csc}\left(\text{arcSin}\left(\frac{1}{6}\right)\right) = 6\right) & .9 = \left(\text{Cos}\left(\text{arcTan}\left(\frac{\sqrt{7}}{3}\right)\right) = \frac{3}{4}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{5}{6}\right) + \text{arcSin}\left(\frac{-3}{7}\right)\right) = \frac{\sqrt{11}\sqrt{10}}{21} - \frac{5}{14}\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{1}{6}\right) + \text{arcSin}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{12} - \frac{\sqrt{35}}{12}\right) \\ .3 = \left(\text{Sin}\left(2\,\text{arcSin}\left(\frac{5}{9}\right)\right) = \frac{20\sqrt{14}}{81}\right) & .4 = \left(\cos\left(2\,\text{arcSin}\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) \\ .5 = \left(\text{arcTan}\left(\text{Cos}\left(\frac{5\pi}{2}\right) + \text{Sin}\left(\frac{9\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\text{Csc}\left(\text{arcCos}\left(\text{Sin}\left(-\frac{5\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(-\frac{\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\,\alpha^2, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.645102

$$Ans1 = \begin{bmatrix} .1 = \left(\arccos\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) & .2 = \left(\arccos\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .3 = \left(\arcsin\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) \\ .4 = (\arccos(-1) = \pi) & .5 = (\arccos(7) = undefined) & .6 = (\arcsin(0) = 0) \\ .7 = (\arctan(0) = 0) & .8 = \left(\arctan(1) = \frac{\pi}{4}\right) & .9 = \left(\arcsin\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\tan\left(\arctan\left(\frac{\sqrt{3}}{3}\right)\right) = \frac{\sqrt{3}}{3}\right) & .2 = \left(\cos(\arctan(1)) = \frac{\sqrt{2}}{2}\right) & .3 = \left(\tan\left(\arcsin\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) \\ .4 = \left(\sin(\arctan(-\sqrt{3})) = -\frac{\sqrt{3}}{2}\right) & .5 = \left(\arctan\left(\tan\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\arccos\left(\sin\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{3}\right) \\ .7 = \left(\arcsin\left(\sin\left(\frac{7\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(\frac{10\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\arctan\left(\tan\left(-\frac{7\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\csc\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)\right) = \sqrt{2}\right) & .11 = \left(\sec\left(\arccos\left(\sin\left(\frac{5\pi}{6}\right)\right)\right) = 2\right) & .12 = \left(\text{ArcSin}\left(\cos\left(\text{ArcSin}\left(-\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\sec\left(\arccos\left(\frac{3}{5}\right)\right) = \frac{5}{3}\right) & .2 = \left(\tan\left(\arcsin\left(\frac{-1}{4}\right)\right) = -\frac{\sqrt{15}}{15}\right) & .3 = \left(\cot\left(\arcsin\left(\frac{1}{3}\right)\right) = 2\sqrt{2}\right) \\ .4 = \left(\cos\left(\arcsin\left(\frac{\sqrt{3}}{8}\right)\right) = \frac{\sqrt{61}}{8}\right) & .5 = \left(\tan\left(\arccos\left(\frac{-5}{7}\right)\right) = -\frac{2\sqrt{6}}{5}\right) & .6 = \left(\cos(\arctan(3)) = \frac{\sqrt{10}}{10}\right) \\ .7 = \left(\sin\left(\arccos\left(-\frac{\sqrt{3}}{8}\right)\right) = \frac{\sqrt{61}}{8}\right) & .8 = \left(\csc(\arctan(-5)) = -\frac{\sqrt{26}}{5}\right) & .9 = \left(\sin\left(\arctan\left(\frac{\sqrt{7}}{2}\right)\right) = \frac{\sqrt{11}\sqrt{7}}{11}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{1}{4}\right)\right) = \frac{\sqrt{3}\sqrt{15}}{8} + \frac{1}{8}\right) & .2 = \left(\cos\left(\arccos\left(\frac{2}{3}\right) + \arcsin\left(\frac{-4}{5}\right)\right) = \frac{4\sqrt{5}}{15} + \frac{2}{5}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{5}{9}\right)\right) = \frac{20\sqrt{14}}{81}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) \\ .5 = \left(\arctan(\cos(3\pi) + \sin(-\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\cot\left(\arccos\left(\sin\left(\frac{17\pi}{6}\right)\right) + \arcsin\left(\cos\left(-\frac{\pi}{6}\right)\right)\right) = -\frac{\sqrt{3}}{3}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\alpha^2 - 1, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645103

$$Ans1 = \begin{bmatrix} .1 = \left(\arctan\left(-\frac{\sqrt{3}}{3}\right) = -\frac{\pi}{6}\right) & .2 = \left(\arccos(0) = \frac{\pi}{2}\right) & .3 = \left(\arccos\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) \\ .4 = (\arccos(5) = undefined) & .5 = \left(\arcsin(1) = \frac{\pi}{2}\right) & .6 = \left(\arcsin\left(\frac{1}{2}\right) = \frac{\pi}{6}\right) \\ .7 = \left(\arctan(1) = \frac{\pi}{4}\right) & .8 = \left(\arccos\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .9 = \left(\arcsin\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\arccos\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .2 = \left(\cos\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .3 = \left(\sin\left(\arccos\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .4 = \left(\tan\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}}{3}\right) & .5 = \left(\arctan\left(\tan\left(-\frac{\pi}{4}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\arccos\left(\sin\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{3}\right) \\ .7 = \left(\arcsin\left(\sin\left(\frac{13\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(-\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) & .9 = \left(\arctan\left(\tan\left(\frac{7\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\cot\left(\arccos\left(-\frac{\sqrt{2}}{2}\right)\right) = -1\right) & .11 = \left(\cot\left(\arccos\left(\sin\left(-\frac{7\pi}{6}\right)\right)\right) = \frac{\sqrt{3}}{3}\right) & .12 = \left(\text{ArcCos}\left(\sin\left(\text{ArcCos}\left(\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{bmatrix}, , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\tan\left(\arccos\left(\frac{5}{7}\right)\right) = \frac{2\sqrt{6}}{5}\right) & .2 = \left(\sin(\arctan(-2)) = -\frac{2\sqrt{5}}{5}\right) & .3 = \left(\tan\left(\arcsin\left(\frac{2}{5}\right)\right) = \frac{2\sqrt{21}}{21}\right) \\ .4 = \left(\sec\left(\arcsin\left(\frac{\sqrt{5}}{7}\right)\right) = \frac{7\sqrt{11}}{22}\right) & .5 = \left(\sin\left(\arccos\left(\frac{-5}{9}\right)\right) = \frac{2\sqrt{14}}{9}\right) & .6 = \left(\cos\left(\arcsin\left(\frac{-3}{8}\right)\right) = \frac{\sqrt{55}}{8}\right) \\ .7 = \left(\cos\left(\arctan\left(\frac{\sqrt{2}}{3}\right)\right) = \frac{3\sqrt{11}}{11}\right) & .8 = \left(\cot\left(\arctan\left(\frac{5}{3}\right)\right) = \frac{3}{5}\right) & .9 = \left(\csc\left(\arccos\left(\frac{\sqrt{2}}{3}\right)\right) = \frac{3\sqrt{7}}{7}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{2}{5}\right) + \arcsin\left(\frac{3}{7}\right)\right) = \frac{2\sqrt{10}\sqrt{21}}{35} + \frac{6}{35}\right) & .2 = \left(\cos\left(\arccos\left(\frac{3}{8}\right) + \arcsin\left(\frac{-1}{3}\right)\right) = \frac{\sqrt{2}}{4} + \frac{\sqrt{55}}{24}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{3}{4}\right)\right) = \frac{3\sqrt{7}}{8}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{1}{4}\right)\right) = \frac{7}{8}\right) \\ .5 = \left(\arctan\left(\cos\left(\frac{\pi}{2}\right) + \sin\left(\frac{3\pi}{2}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\cot\left(\arccos\left(\sin\left(\frac{17\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{10\pi}{3}\right)\right)\right) = \sqrt{3}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\alpha^2, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.645104

$$Ans1 = \left[\begin{array}{ccc} .1 = \left(\mathrm{arcCos}\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .2 = (\mathrm{arcTan}(0) = 0) & .3 = \left(\mathrm{arcTan}(1) = \frac{\pi}{4}\right) \\ .4 = (\mathrm{arcCos}(-1) = \pi) & .5 = \left(\mathrm{arcSin}(1) = \frac{\pi}{2}\right) & .6 = \left(\mathrm{arcCos}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \\ .7 = \left(\mathrm{arcSin}\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) & .8 = (\mathrm{arcSin}(\sqrt{3}) = \mathit{undefined}) & .9 = \left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) \end{array}\right], \left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]$$

$$Ans2 = \left[\begin{array}{ccc} .1 = \left(\mathrm{Sin}\left(\mathrm{arcSin}\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) & .2 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(-\frac{\sqrt{2}}{2}\right)\right) = -1\right) & .3 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) \\ .4 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .5 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{5\pi}{6}\right)\right) = -\frac{\pi}{3}\right) \\ .7 = \left(\mathrm{arcSin}\left(\mathrm{Sin}\left(-\frac{7\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\mathrm{arcCos}\left(\mathrm{Cos}\left(-\frac{\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(-\frac{11\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\mathrm{Sec}\left(\mathrm{arcTan}\left(\frac{\sqrt{3}}{3}\right)\right) = \frac{2\sqrt{3}}{3}\right) & .11 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{17\pi}{6}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) & .12 = \left(\mathrm{ArcSin}\left(\mathrm{Cos}\left(\mathrm{ArcSin}\left(\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{array}\right], \left[\begin{array}{c} :) \\ :(\\ \left[\left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]\right] \\ :) \\ :(\end{array}\right]$$

$$Ans3 = \left[\begin{array}{ccc} .1 = \left(\mathrm{Cos}\left(\mathrm{arcTan}\left(\frac{1}{2}\right)\right) = \frac{2\sqrt{5}}{5}\right) & .2 = \left(\mathrm{Csc}\left(\mathrm{arcTan}\left(\frac{-5}{6}\right)\right) = -\frac{\sqrt{61}}{5}\right) & .3 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{5}{9}\right)\right) = \frac{2\sqrt{14}}{9}\right) \\ .4 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{5}{6}\right)\right) = \frac{\sqrt{11}}{6}\right) & .5 = \left(\mathrm{Sec}\left(\mathrm{arcCos}\left(\frac{-5}{7}\right)\right) = \frac{-7}{5}\right) & .6 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(-\frac{\sqrt{5}}{7}\right)\right) = -\frac{\sqrt{5}\sqrt{6}}{18}\right) \\ .7 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{\sqrt{5}}{6}\right)\right) = \frac{\sqrt{31}\sqrt{5}}{5}\right) & .8 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(-\frac{\sqrt{2}}{5}\right)\right) = -\frac{\sqrt{23}\sqrt{2}}{23}\right) & .9 = \left(\mathrm{Cot}\left(\mathrm{arcSin}\left(\frac{-3}{5}\right)\right) = \frac{-4}{3}\right) \end{array}\right], \left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]$$

$$Ans4 = \left[\begin{array}{cc} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{2}{3}\right) + \mathrm{arcSin}\left(\frac{1}{4}\right)\right) = \frac{\sqrt{5}\sqrt{15}}{12} + \frac{1}{6}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{1}{3}\right) + \mathrm{arcSin}\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{6} + \frac{\sqrt{2}}{3}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcSin}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .4 = \left(\cos\left(2\,\mathrm{arcCos}\left(\frac{1}{5}\right)\right) = \frac{-23}{25}\right) \\ .5 = \left(\mathrm{arcTan}\left(\mathrm{Cos}\left(\frac{9\pi}{2}\right) + \mathrm{Sin}\left(-\frac{11\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{5\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{5\pi}{3}\right)\right)\right) = -\sqrt{3}\right) \end{array}\right], \left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \quad \left[\begin{array}{c} M \\ U \\ T \end{array}\right]$$

$$Ans6 = 1 - 2\,\alpha^2, \quad \left[\begin{array}{c} M \\ U \\ T \end{array}\right]$$

TrigonometryExercise5 Answers for No.645105

$$Ans1 = \left[\begin{array}{ccc} .1 = (\mathrm{arcTan}(0) = 0) & .2 = \left(\mathrm{arcCos}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .3 = \left(\mathrm{arcSin}\left(\frac{1}{2}\right) = \frac{\pi}{6}\right) \\ .4 = \left(\mathrm{arcCos}\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}\right) & .5 = (\mathrm{arcSin}(3) = \mathit{undefined}) & .6 = (\mathrm{arcCos}(1) = 0) \\ .7 = \left(\mathrm{arcTan}(\sqrt{3}) = \frac{\pi}{3}\right) & .8 = \left(\mathrm{arcSin}\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) & .9 = \left(\mathrm{arcSin}(-1) = -\frac{\pi}{2}\right) \end{array}\right], \left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]$$

$$Ans2 = \left[\begin{array}{ccc} .1 = \left(\cos\left(\mathrm{arcCos}\left(-\frac{\sqrt{2}}{2}\right)\right) = -\frac{\sqrt{2}}{2}\right) & .2 = \left(\mathrm{Cos}(\mathrm{arcTan}(\sqrt{3})) = \frac{1}{2}\right) & .3 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{-1}{2}\right)\right) = -\sqrt{3}\right) \\ .4 = \left(\mathrm{Sin}(\mathrm{arcTan}(-\sqrt{3})) = -\frac{\sqrt{3}}{2}\right) & .5 = \left(\mathrm{arcCos}\left(\mathrm{Cos}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{\pi}{3}\right)\right) = \frac{\pi}{6}\right) \\ .7 = \left(\mathrm{arcSin}\left(\mathrm{Sin}\left(-\frac{11\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\mathrm{arcCos}\left(\mathrm{Cos}\left(-\frac{3\pi}{4}\right)\right) = \frac{3\pi}{4}\right) & .9 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(-\frac{13\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = (\mathrm{Csc}(\mathrm{arcTan}(-1)) = -\sqrt{2}) & .11 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{17\pi}{6}\right)\right)\right) = -\sqrt{3}\right) & .12 = \left(\mathrm{ArcCos}\left(\mathrm{Sin}\left(\mathrm{ArcCos}\left(\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{array}\right], \left[\begin{array}{c} :) \\ :(\\ \left[\left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]\right] \\ :) \\ :(\end{array}\right]$$

$$Ans3 = \left[\begin{array}{ccc} .1 = \left(\mathrm{Cot}\left(\mathrm{arcSin}\left(\frac{1}{4}\right)\right) = \sqrt{15}\right) & .2 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{1}{4}\right)\right) = \frac{\sqrt{17}}{17}\right) & .3 = \left(\mathrm{Sec}\left(\mathrm{arcTan}\left(\frac{-3}{2}\right)\right) = \frac{\sqrt{13}}{2}\right) \\ .4 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(-\frac{\sqrt{5}}{7}\right)\right) = -\frac{\sqrt{5}\sqrt{11}}{22}\right) & .5 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{\sqrt{5}}{8}\right)\right) = \frac{\sqrt{59}}{8}\right) & .6 = \left(\mathrm{Cos}\left(\mathrm{arcTan}\left(-\frac{\sqrt{6}}{7}\right)\right) = \frac{7\sqrt{55}}{55}\right) \\ .7 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{1}{5}\right)\right) = 2\sqrt{6}\right) & .8 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\frac{-4}{9}\right)\right) = \frac{9\sqrt{65}}{65}\right) & .9 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{-2}{3}\right)\right) = \frac{\sqrt{5}}{3}\right) \end{array}\right], \left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]$$

$$Ans4 = \left[\begin{array}{cc} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{1}{2}\right) + \mathrm{arcSin}\left(\frac{1}{2}\right)\right) = 1\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{4}{5}\right) + \mathrm{arcSin}\left(\frac{-1}{4}\right)\right) = \frac{\sqrt{15}}{5} + \frac{3}{20}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcSin}\left(\frac{2}{3}\right)\right) = \frac{4\sqrt{5}}{9}\right) & .4 = \left(\cos\left(2\,\mathrm{arcSin}\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) \\ .5 = \left(\mathrm{arcTan}\left(\mathrm{Cos}\left(\frac{7\pi}{2}\right) + \mathrm{Sin}\left(-\frac{9\pi}{2}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\mathrm{Sec}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{11\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{7\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{array}\right], \left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \quad \left[\begin{array}{c} M \\ U \\ T \end{array}\right]$$

$$Ans6 = 1 - 2\,\alpha^2, \quad \left[\begin{array}{c} M \\ U \\ T \end{array}\right]$$

$$Ans1 = \begin{bmatrix} .1 = \left(\text{arcSin}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .2 = \left(\text{arcSin}(1) = \frac{\pi}{2}\right) & .3 = \left(\text{arcTan}\left(\frac{\sqrt{3}}{3}\right) = \frac{\pi}{6}\right) \\ .4 = \left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .5 = (\text{arcSin}(5) = \textit{undefined}) & .6 = \left(\text{arcTan}(-1) = -\frac{\pi}{4}\right) \\ .7 = \left(\text{arcCos}(0) = \frac{\pi}{2}\right) & .8 = \left(\text{arcCos}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .9 = \left(\text{arcSin}\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\text{arcCos}\left(\frac{-1}{2}\right)\right) = \frac{-1}{2}\right) & .2 = \left(\text{Cos}\left(\text{arcTan}\left(-\frac{\sqrt{3}}{3}\right)\right) = \frac{\sqrt{3}}{2}\right) & .3 = \left(\text{Sin}\left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) \\ .4 = \left(\text{Tan}\left(\text{arcSin}\left(-\frac{\sqrt{2}}{2}\right)\right) = -1\right) & .5 = \left(\text{arcCos}\left(\text{Cos}\left(\frac{3\pi}{4}\right)\right) = \frac{3\pi}{4}\right) & .6 = \left(\text{arcCos}\left(\text{Sin}\left(-\frac{\pi}{3}\right)\right) = \frac{5\pi}{6}\right) \\ .7 = \left(\text{arcSin}\left(\text{Sin}\left(-\frac{13\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\text{arcCos}\left(\text{Cos}\left(-\frac{2\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\text{arcTan}\left(\text{Tan}\left(\frac{13\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\text{Cot}\left(\text{arcTan}\left(\frac{\sqrt{3}}{3}\right)\right) = \sqrt{3}\right) & .11 = \left(\text{Cot}\left(\text{arcCos}\left(\text{Sin}\left(-\frac{7\pi}{6}\right)\right)\right) = \frac{\sqrt{3}}{3}\right) & .12 = \left(\text{ArcCos}\left(\text{Sin}\left(\text{ArcCos}\left(-\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{bmatrix}, , \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Tan}\left(\text{arcSin}\left(\frac{5}{8}\right)\right) = \frac{5\sqrt{39}}{39}\right) & .2 = \left(\text{Sec}\left(\text{arcSin}\left(\frac{-5}{7}\right)\right) = \frac{7\sqrt{6}}{12}\right) & .3 = \left(\text{Cos}\left(\text{arcTan}\left(\frac{-1}{2}\right)\right) = \frac{2\sqrt{5}}{5}\right) \\ .4 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{1}{2}\right)\right) = \sqrt{3}\right) & .5 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{\sqrt{5}}{7}\right)\right) = \frac{2\sqrt{11}}{7}\right) & .6 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{\sqrt{7}}{12}\right)\right) = \frac{\sqrt{137}}{12}\right) \\ .7 = \left(\text{Sin}\left(\text{arcTan}\left(\frac{7}{2}\right)\right) = \frac{7\sqrt{53}}{53}\right) & .8 = \left(\text{Csc}\left(\text{arcCos}\left(\frac{-3}{7}\right)\right) = \frac{7\sqrt{10}}{20}\right) & .9 = \left(\text{Cot}\left(\text{arcTan}\left(-\frac{\sqrt{2}}{7}\right)\right) = -\frac{7\sqrt{2}}{2}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{1}{5}\right) + \text{arcSin}\left(\frac{-1}{4}\right)\right) = \frac{\sqrt{6}\sqrt{15}}{10} - \frac{1}{20}\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{1}{2}\right) + \text{arcSin}\left(\frac{3}{7}\right)\right) = \frac{\sqrt{10}}{7} - \frac{3\sqrt{3}}{14}\right) \\ .3 = \left(\text{Sin}\left(2\,\text{arcSin}\left(\frac{2}{3}\right)\right) = \frac{4\sqrt{5}}{9}\right) & .4 = \left(\cos\left(2\,\text{arcCos}\left(\frac{1}{4}\right)\right) = \frac{-7}{8}\right) \\ .5 = \left(\text{arcTan}\left(\text{Cos}\left(\frac{3\pi}{2}\right) + \text{Sin}\left(\frac{7\pi}{2}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\text{Sec}\left(\text{arcCos}\left(\text{Sin}\left(-\frac{5\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(-\frac{\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\,\alpha^2 - 1, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645107

$$Ans1 = \begin{bmatrix} .1 = (\text{arcCos}(1) = 0) & .2 = (\text{arcTan}(0) = 0) & .3 = (\text{arcCos}(\sqrt{2}) = \textit{undefined}) \\ .4 = \left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .5 = \left(\text{arcCos}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .6 = \left(\text{arcSin}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \\ .7 = \left(\text{arcSin}\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) & .8 = \left(\text{arcTan}(-1) = -\frac{\pi}{4}\right) & .9 = (\text{arcSin}(0) = 0) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\text{Tan}\left(\text{arcTan}\left(-\frac{\sqrt{3}}{3}\right)\right) = -\frac{\sqrt{3}}{3}\right) & .2 = \left(\text{Sin}\left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .3 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{-1}{2}\right)\right) = -\sqrt{3}\right) \\ .4 = \left(\text{Cos}(\text{arcTan}(-\sqrt{3})) = \frac{1}{2}\right) & .5 = \left(\text{arcCos}\left(\text{Cos}\left(\frac{5\pi}{6}\right)\right) = \frac{5\pi}{6}\right) & .6 = \left(\text{arcCos}\left(\text{Sin}\left(\frac{\pi}{3}\right)\right) = \frac{\pi}{6}\right) \\ .7 = \left(\text{arcSin}\left(\text{Sin}\left(-\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\text{arcCos}\left(\text{Cos}\left(\frac{4\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\text{arcTan}\left(\text{Tan}\left(\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\text{Csc}\left(\text{arcSin}\left(\frac{\sqrt{2}}{2}\right)\right) = \sqrt{2}\right) & .11 = \left(\text{Cot}\left(\text{arcCos}\left(\text{Sin}\left(-\frac{7\pi}{6}\right)\right)\right) = \frac{\sqrt{3}}{3}\right) & .12 = \left(\text{ArcCos}\left(\text{Sin}\left(\text{ArcCos}\left(\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, , \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Tan}\left(\text{arcSin}\left(-\frac{\sqrt{2}}{3}\right)\right) = -\frac{\sqrt{7}\sqrt{2}}{7}\right) & .2 = \left(\text{Sin}\left(\text{arcTan}\left(-\frac{\sqrt{7}}{2}\right)\right) = -\frac{\sqrt{11}\sqrt{7}}{11}\right) & .3 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{4}{9}\right)\right) = \frac{\sqrt{65}}{9}\right) \\ .4 = \left(\text{Cot}\left(\text{arcSin}\left(\frac{-3}{5}\right)\right) = \frac{-4}{3}\right) & .5 = \left(\text{Tan}\left(\text{arcCos}\left(-\frac{\sqrt{5}}{7}\right)\right) = -\frac{2\sqrt{5}\sqrt{11}}{5}\right) & .6 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{2}{5}\right)\right) = \frac{\sqrt{21}}{5}\right) \\ .7 = \left(\text{Sec}\left(\text{arcCos}\left(\frac{-5}{6}\right)\right) = \frac{-6}{5}\right) & .8 = \left(\text{Csc}\left(\text{arcTan}\left(\frac{-7}{5}\right)\right) = -\frac{\sqrt{74}}{7}\right) & .9 = \left(\text{Cos}(\text{arcTan}(6)) = \frac{\sqrt{37}}{37}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{3}{7}\right) + \text{arcSin}\left(\frac{3}{4}\right)\right) = \frac{\sqrt{10}\sqrt{7}}{14} + \frac{9}{28}\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{4}{7}\right) + \text{arcSin}\left(\frac{-5}{7}\right)\right) = \frac{8\sqrt{6}}{49} + \frac{5\sqrt{33}}{49}\right) \\ .3 = \left(\text{Sin}\left(2\,\text{arcSin}\left(\frac{3}{5}\right)\right) = \frac{24}{25}\right) & .4 = \left(\cos\left(2\,\text{arcCos}\left(\frac{1}{2}\right)\right) = \frac{-1}{2}\right) \\ .5 = \left(\text{arcTan}\left(\text{Cos}(2\pi) + \text{Sin}\left(-\frac{13\pi}{2}\right)\right) = 0\right) & .6 = \left(\text{Csc}\left(\text{arcCos}\left(\text{Sin}\left(\frac{17\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(-\frac{2\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\,\alpha^2 - 1, \quad , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645108

$$Ans1 = \begin{bmatrix} .1 = \left(\arctan(-1) = -\frac{\pi}{4}\right) & .2 = \left(\arcsin\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .3 = \left(\arcsin\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) \\ .4 = \left(\arcsin(1) = \frac{\pi}{2}\right) & .5 = \left(\arccos\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .6 = \left(\arccos(0) = \frac{\pi}{2}\right) \\ .7 = \left(\arctan\left(\frac{\sqrt{3}}{3}\right) = \frac{\pi}{6}\right) & .8 = (\arcsin(-5) = undefined) & .9 = \left(\arccos\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\arccos\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .2 = \left(\mathrm{Cos}(\arctan(-1)) = \frac{\sqrt{2}}{2}\right) & .3 = \left(\mathrm{Tan}\left(\arccos\left(\frac{\sqrt{2}}{2}\right)\right) = 1\right) \\ .4 = \left(\mathrm{Sin}\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)\right) = \frac{1}{2}\right) & .5 = \left(\arcsin\left(\mathrm{Sin}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\arccos\left(\mathrm{Sin}\left(-\frac{\pi}{4}\right)\right) = \frac{3\pi}{4}\right) \\ .7 = \left(\arcsin\left(\mathrm{Sin}\left(\frac{5\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arccos\left(\mathrm{Cos}\left(-\frac{3\pi}{4}\right)\right) = \frac{3\pi}{4}\right) & .9 = \left(\arctan\left(\mathrm{Tan}\left(-\frac{17\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\mathrm{Csc}\left(\arccos\left(\frac{-1}{2}\right)\right) = \frac{2\sqrt{3}}{3}\right) & .11 = \left(\mathrm{Csc}\left(\arcsin\left(\mathrm{Cos}\left(\frac{10\pi}{3}\right)\right)\right) = -2\right) & .12 = \left(\mathrm{ArcCos}\left(\mathrm{Sin}\left(\mathrm{ArcCos}\left(-\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, \; , \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Tan}\left(\arccos\left(\frac{-2}{7}\right)\right) = -\frac{3\sqrt{5}}{2}\right) & .2 = \left(\mathrm{Sin}\left(\arccos\left(\frac{\sqrt{3}}{4}\right)\right) = \frac{\sqrt{13}}{4}\right) & .3 = \left(\mathrm{Csc}\left(\arccos\left(\frac{4}{5}\right)\right) = \frac{5}{3}\right) \\ .4 = \left(\mathrm{Sin}\left(\arctan\left(-\frac{\sqrt{5}}{2}\right)\right) = -\frac{\sqrt{5}}{3}\right) & .5 = \left(\mathrm{Cos}\left(\arctan\left(\frac{-7}{5}\right)\right) = \frac{5\sqrt{74}}{74}\right) & .6 = \left(\mathrm{Sec}\left(\arcsin\left(-\frac{\sqrt{5}}{9}\right)\right) = \frac{9\sqrt{19}}{38}\right) \\ .7 = \left(\mathrm{Cos}\left(\arcsin\left(\frac{4}{7}\right)\right) = \frac{\sqrt{33}}{7}\right) & .8 = \left(\mathrm{Tan}\left(\arcsin\left(\frac{-5}{7}\right)\right) = -\frac{5\sqrt{6}}{12}\right) & .9 = \left(\mathrm{Cot}\left(\arctan\left(\frac{1}{6}\right)\right) = 6\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{-4}{5}\right)\right) = \frac{3\sqrt{3}}{10} - \frac{2}{5}\right) & .2 = \left(\mathrm{Cos}\left(\arccos\left(\frac{4}{5}\right) + \arcsin\left(\frac{4}{9}\right)\right) = \frac{4\sqrt{65}}{45} - \frac{4}{15}\right) \\ .3 = \left(\mathrm{Sin}\left(2\arcsin\left(\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{8}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{2}{7}\right)\right) = \frac{-41}{49}\right) \\ .5 = \left(\arctan\left(\mathrm{Cos}\left(\frac{3\pi}{2}\right) + \mathrm{Sin}\left(-\frac{11\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\mathrm{Csc}\left(\arccos\left(\mathrm{Sin}\left(-\frac{17\pi}{6}\right)\right) + \arcsin\left(\mathrm{Cos}\left(\frac{5\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1 - \alpha^2}, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\,\alpha^2, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645109

$$Ans1 = \begin{bmatrix} .1 = \left(\arccos\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .2 = (\arccos(3) = undefined) & .3 = \left(\arccos\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) \\ .4 = \left(\arcsin\left(\frac{1}{2}\right) = \frac{\pi}{6}\right) & .5 = \left(\arctan(-\sqrt{3}) = -\frac{\pi}{3}\right) & .6 = (\arccos(-1) = \pi) \\ .7 = \left(\arcsin\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) & .8 = (\arctan(0) = 0) & .9 = \left(\arcsin(1) = \frac{\pi}{2}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\arccos\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .2 = \left(\mathrm{Tan}\left(\arcsin\left(-\frac{\sqrt{2}}{2}\right)\right) = -1\right) & .3 = \left(\mathrm{Sin}\left(\arctan\left(-\frac{\sqrt{3}}{3}\right)\right) = \frac{-1}{2}\right) \\ .4 = \left(\mathrm{Cos}\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{1}{2}\right) & .5 = \left(\arccos\left(\mathrm{Cos}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\arcsin\left(\mathrm{Cos}\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) \\ .7 = \left(\arcsin\left(\mathrm{Sin}\left(-\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\arccos\left(\mathrm{Cos}\left(-\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .9 = \left(\arctan\left(\mathrm{Tan}\left(-\frac{5\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = (\mathrm{Csc}(\arctan(1)) = \sqrt{2}) & .11 = \left(\mathrm{Sec}\left(\arccos\left(\mathrm{Sin}\left(\frac{17\pi}{6}\right)\right)\right) = 2\right) & .12 = \left(\mathrm{ArcCos}\left(\mathrm{Sin}\left(\mathrm{ArcCos}\left(\frac{1}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \; , \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Cos}\left(\arcsin\left(\frac{-4}{7}\right)\right) = \frac{\sqrt{33}}{7}\right) & .2 = \left(\mathrm{Cos}\left(\arctan\left(-\frac{\sqrt{6}}{5}\right)\right) = \frac{5\sqrt{31}}{31}\right) & .3 = \left(\mathrm{Tan}\left(\arccos\left(-\frac{\sqrt{3}}{4}\right)\right) = -\frac{\sqrt{13}\sqrt{3}}{3}\right) \\ .4 = \left(\mathrm{Cot}\left(\arccos\left(\frac{-2}{5}\right)\right) = -\frac{2\sqrt{21}}{21}\right) & .5 = \left(\mathrm{Sin}\left(\arctan\left(\frac{4}{5}\right)\right) = \frac{4\sqrt{41}}{41}\right) & .6 = \left(\mathrm{Sin}\left(\arccos\left(\frac{4}{5}\right)\right) = \frac{3}{5}\right) \\ .7 = \left(\mathrm{Tan}\left(\arcsin\left(\frac{\sqrt{2}}{5}\right)\right) = \frac{\sqrt{23}\sqrt{2}}{23}\right) & .8 = \left(\mathrm{Sec}\left(\arcsin\left(\frac{2}{3}\right)\right) = \frac{3\sqrt{5}}{5}\right) & .9 = \left(\mathrm{Csc}\left(\arctan\left(\frac{-7}{4}\right)\right) = -\frac{\sqrt{65}}{7}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{3}{5}\right)\right) = \frac{3}{10} + \frac{2\sqrt{3}}{5}\right) & .2 = \left(\mathrm{Cos}\left(\arccos\left(\frac{3}{7}\right) + \arcsin\left(\frac{-1}{2}\right)\right) = \frac{3\sqrt{3}}{14} + \frac{\sqrt{10}}{7}\right) \\ .3 = \left(\mathrm{Sin}\left(2\arccos\left(\frac{5}{9}\right)\right) = \frac{20\sqrt{14}}{81}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{3}{8}\right)\right) = \frac{-23}{32}\right) \\ .5 = \left(\arctan\left(\mathrm{Cos}(8\pi) + \mathrm{Sin}\left(-\frac{9\pi}{2}\right)\right) = 0\right) & .6 = \left(\mathrm{Csc}\left(\arccos\left(\mathrm{Sin}\left(\frac{13\pi}{6}\right)\right) + \arcsin\left(\mathrm{Cos}\left(\frac{8\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1 - \alpha^2}, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\,\alpha^2, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645110

$$Ans1=\begin{bmatrix} .1=\left(\arccos\left(\frac{\sqrt{2}}{2}\right)=\frac{\pi}{4}\right) & .2=(\arcsin(5)=undefined) & .3=\left(\arctan\left(-\frac{\sqrt{3}}{3}\right)=-\frac{\pi}{6}\right)\\ .4=\left(\arcsin(1)=\frac{\pi}{2}\right) & .5=\left(\arcsin\left(-\frac{\sqrt{3}}{2}\right)=-\frac{\pi}{3}\right) & .6=\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)=\frac{\pi}{3}\right)\\ .7=\left(\arccos\left(\frac{-1}{2}\right)=\frac{2\pi}{3}\right) & .8=\left(\arctan(1)=\frac{\pi}{4}\right) & .9=(\arccos(-1)=\pi)\end{bmatrix}, \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans2=\begin{bmatrix} .1=\left(\cos\left(\arccos\left(\frac{-1}{2}\right)\right)=\frac{-1}{2}\right) & .2=\left(\text{Cos}(\arctan(-\sqrt{3}))=\frac{1}{2}\right) & .3=\left(\text{Sin}\left(\arccos\left(\frac{\sqrt{3}}{2}\right)\right)=\frac{1}{2}\right)\\ .4=\left(\text{Tan}\left(\arccos\left(\frac{\sqrt{2}}{2}\right)\right)=1\right) & .5=\left(\arccos\left(\text{Cos}\left(\frac{\pi}{3}\right)\right)=\frac{\pi}{3}\right) & .6=\left(\arccos\left(\text{Sin}\left(\frac{\pi}{6}\right)\right)=\frac{\pi}{3}\right)\\ .7=\left(\arcsin\left(\text{Sin}\left(-\frac{7\pi}{6}\right)\right)=\frac{\pi}{6}\right) & .8=\left(\arccos\left(\text{Cos}\left(\frac{4\pi}{3}\right)\right)=\frac{2\pi}{3}\right) & .9=\left(\arctan\left(\text{Tan}\left(-\frac{7\pi}{6}\right)\right)=-\frac{\pi}{6}\right)\\ .10=\left(\text{Csc}\left(\arcsin\left(-\frac{\sqrt{2}}{2}\right)\right)=-\sqrt{2}\right) & .11=\left(\text{Tan}\left(\arcsin\left(\text{Cos}\left(\frac{13\pi}{3}\right)\right)\right)=\frac{\sqrt{3}}{3}\right) & .12=\left(\text{ArcCos}\left(\text{Sin}\left(\text{ArcCos}\left(\frac{1}{2}\right)\right)\right)=\frac{\pi}{6}\right)\end{bmatrix}, , \begin{bmatrix}:)\\:(\\ \begin{bmatrix}\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}\end{bmatrix}\\:)\\:(\end{bmatrix}$$

$$Ans3=\begin{bmatrix} .1=\left(\text{Cos}\left(\arctan\left(\frac{-2}{7}\right)\right)=\frac{7\sqrt{53}}{53}\right) & .2=\left(\text{Sin}\left(\arctan\left(\frac{\sqrt{2}}{3}\right)\right)=\frac{\sqrt{2}\sqrt{11}}{11}\right) & .3=\left(\text{Sin}\left(\arccos\left(\frac{-2}{3}\right)\right)=\frac{\sqrt{5}}{3}\right)\\ .4=\left(\text{Sec}\left(\arccos\left(\frac{5}{9}\right)\right)=\frac{9}{5}\right) & .5=\left(\text{Csc}\left(\arcsin\left(\frac{-5}{7}\right)\right)=\frac{-7}{5}\right) & .6=\left(\text{Cos}\left(\arcsin\left(\frac{1}{4}\right)\right)=\frac{\sqrt{15}}{4}\right)\\ .7=\left(\text{Cot}\left(\arctan\left(\frac{1}{3}\right)\right)=3\right) & .8=\left(\text{Tan}\left(\arcsin\left(-\frac{\sqrt{6}}{7}\right)\right)=-\frac{\sqrt{6}\sqrt{43}}{43}\right) & .9=\left(\text{Tan}\left(\arccos\left(\frac{\sqrt{2}}{5}\right)\right)=\frac{\sqrt{23}\sqrt{2}}{2}\right)\end{bmatrix}, , \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans4=\begin{bmatrix} .1=\left(\text{Sin}\left(\arccos\left(\frac{1}{2}\right)+\arcsin\left(\frac{-4}{7}\right)\right)=\frac{\sqrt{3}\sqrt{33}}{14}-\frac{2}{7}\right) & .2=\left(\text{Cos}\left(\arccos\left(\frac{1}{2}\right)+\arcsin\left(\frac{1}{2}\right)\right)=0\right)\\ .3=\left(\text{Sin}\left(2\arcsin\left(\frac{2}{7}\right)\right)=\frac{12\sqrt{5}}{49}\right) & .4=\left(\cos\left(2\arcsin\left(\frac{1}{2}\right)\right)=\frac{1}{2}\right)\\ .5=\left(\arctan\left(\text{Cos}(7\pi)+\text{Sin}\left(\frac{17\pi}{2}\right)\right)=0\right) & .6=\left(\text{Csc}\left(\arccos\left(\text{Sin}\left(\frac{5\pi}{6}\right)\right)+\arcsin\left(\text{Cos}\left(-\frac{\pi}{6}\right)\right)\right)=\frac{2\sqrt{3}}{3}\right)\end{bmatrix}, , \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans5=2\,\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix}M\\U\\T\end{bmatrix}$$

$$Ans6=2\,\alpha^2-1, \quad , \begin{bmatrix}M\\U\\T\end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645111

$$Ans1=\begin{bmatrix} .1=(\arccos(-1)=\pi) & .2=\left(\arccos\left(\frac{1}{2}\right)=\frac{\pi}{3}\right) & .3=(\arcsin(0)=0)\\ .4=\left(\arctan(\sqrt{3})=\frac{\pi}{3}\right) & .5=\left(\arccos\left(\frac{-1}{2}\right)=\frac{2\pi}{3}\right) & .6=(\arccos(-3)=undefined)\\ .7=\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)=\frac{\pi}{4}\right) & .8=(\arctan(0)=0) & .9=\left(\arcsin\left(-\frac{\sqrt{2}}{2}\right)=-\frac{\pi}{4}\right)\end{bmatrix}, \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans2=\begin{bmatrix} .1=\left(\text{Sin}\left(\arcsin\left(\frac{-1}{2}\right)\right)=\frac{-1}{2}\right) & .2=\left(\text{Tan}\left(\arcsin\left(-\frac{\sqrt{2}}{2}\right)\right)=-1\right) & .3=\left(\text{Sin}(\arctan(1))=\frac{\sqrt{2}}{2}\right)\\ .4=\left(\text{Cos}\left(\arctan\left(\frac{\sqrt{3}}{3}\right)\right)=\frac{\sqrt{3}}{2}\right) & .5=\left(\arctan\left(\text{Tan}\left(\frac{\pi}{6}\right)\right)=\frac{\pi}{6}\right) & .6=\left(\arccos\left(\text{Sin}\left(\frac{\pi}{3}\right)\right)=\frac{\pi}{6}\right)\\ .7=\left(\arcsin\left(\text{Sin}\left(-\frac{13\pi}{6}\right)\right)=-\frac{\pi}{6}\right) & .8=\left(\arccos\left(\text{Cos}\left(-\frac{\pi}{4}\right)\right)=\frac{\pi}{4}\right) & .9=\left(\arctan\left(\text{Tan}\left(\frac{11\pi}{6}\right)\right)=-\frac{\pi}{6}\right)\\ .10=\left(\text{Sec}\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)\right)=2\right) & .11=\left(\text{Cot}\left(\arcsin\left(\text{Cos}\left(\frac{5\pi}{3}\right)\right)\right)=\sqrt{3}\right) & .12=\left(\text{ArcSin}\left(\text{Cos}\left(\text{ArcSin}\left(-\frac{\sqrt{3}}{2}\right)\right)\right)=\frac{\pi}{6}\right)\end{bmatrix}, , \begin{bmatrix}:)\\:(\\ \begin{bmatrix}\begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}\end{bmatrix}\\:)\\:(\end{bmatrix}$$

$$Ans3=\begin{bmatrix} .1=\left(\text{Sec}\left(\arctan\left(\frac{3}{5}\right)\right)=\frac{\sqrt{34}}{5}\right) & .2=\left(\text{Cot}\left(\arcsin\left(\frac{\sqrt{5}}{8}\right)\right)=\frac{\sqrt{59}\sqrt{5}}{5}\right) & .3=\left(\text{Sin}\left(\arctan\left(\frac{-1}{5}\right)\right)=-\frac{\sqrt{26}}{26}\right)\\ .4=\left(\text{Tan}\left(\arcsin\left(\frac{5}{9}\right)\right)=\frac{5\sqrt{14}}{28}\right) & .5=\left(\text{Cos}\left(\arctan\left(\frac{\sqrt{7}}{2}\right)\right)=\frac{2\sqrt{11}}{11}\right) & .6=\left(\text{Sin}\left(\arccos\left(\frac{-2}{3}\right)\right)=\frac{\sqrt{5}}{3}\right)\\ .7=\left(\text{Cos}\left(\arcsin\left(\frac{-2}{5}\right)\right)=\frac{\sqrt{21}}{5}\right) & .8=\left(\text{Csc}\left(\arccos\left(\frac{5}{7}\right)\right)=\frac{7\sqrt{6}}{12}\right) & .9=\left(\text{Tan}\left(\arccos\left(-\frac{\sqrt{5}}{8}\right)\right)=-\frac{\sqrt{59}\sqrt{5}}{5}\right)\end{bmatrix}, , \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans4=\begin{bmatrix} .1=\left(\text{Sin}\left(\arccos\left(\frac{5}{8}\right)+\arcsin\left(\frac{5}{7}\right)\right)=\frac{\sqrt{39}\sqrt{6}}{28}+\frac{25}{56}\right) & .2=\left(\text{Cos}\left(\arccos\left(\frac{1}{2}\right)+\arcsin\left(\frac{-1}{2}\right)\right)=\frac{\sqrt{3}}{2}\right)\\ .3=\left(\text{Sin}\left(2\arcsin\left(\frac{4}{9}\right)\right)=\frac{8\sqrt{65}}{81}\right) & .4=\left(\cos\left(2\arccos\left(\frac{5}{6}\right)\right)=\frac{7}{18}\right)\\ .5=\left(\arctan\left(\text{Cos}(8\pi)+\text{Sin}\left(-\frac{9\pi}{2}\right)\right)=0\right) & .6=\left(\text{Csc}\left(\arccos\left(\text{Sin}\left(-\frac{11\pi}{6}\right)\right)+\arcsin\left(\text{Cos}\left(\frac{4\pi}{3}\right)\right)\right)=2\right)\end{bmatrix}, , \begin{bmatrix}M\\a\\t\\h\\@\\M\\U\\T\end{bmatrix}$$

$$Ans5=2\,\alpha\sqrt{1-\alpha^2}, \quad , \begin{bmatrix}M\\U\\T\end{bmatrix}$$

$$Ans6=1-2\,\alpha^2, \quad , \begin{bmatrix}M\\U\\T\end{bmatrix}$$

TrigonometryExercise5 Answers for No.645112

$$Ans1 = \begin{bmatrix} .1 = (\mathrm{arcCos}(-3) = \mathit{undefined}) & .2 = \left(\mathrm{arcSin}\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) & .3 = \left(\mathrm{arcSin}(-1) = -\frac{\pi}{2}\right) \\ .4 = \left(\mathrm{arcCos}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .5 = \left(\mathrm{arcTan}(\sqrt{3}) = \frac{\pi}{3}\right) & .6 = \left(\mathrm{arcCos}\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}\right) \\ .7 = (\mathrm{arcTan}(0) = 0) & .8 = \left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .9 = (\mathrm{arcCos}(1) = 0) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\mathrm{arcCos}\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .2 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{\sqrt{3}}{3}\right)\right) = \frac{1}{2}\right) & .3 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .4 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(-\frac{\sqrt{3}}{2}\right)\right) = -\sqrt{3}\right) & .5 = \left(\mathrm{arcSin}\left(\mathrm{Sin}\left(-\frac{\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .6 = \left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{\pi}{3}\right)\right) = \frac{\pi}{6}\right) \\ .7 = \left(\mathrm{arcSin}\left(\mathrm{Sin}\left(-\frac{5\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\mathrm{arcCos}\left(\mathrm{Cos}\left(\frac{4\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(-\frac{5\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\mathrm{Cot}\left(\mathrm{arcCos}\left(-\frac{\sqrt{3}}{2}\right)\right) = -\sqrt{3}\right) & .11 = \left(\mathrm{Sec}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{11\pi}{6}\right)\right)\right) = -2\right) & .12 = \left(\mathrm{ArcSin}\left(\mathrm{Cos}\left(\mathrm{ArcSin}\left(\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, \; , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Cot}\left(\mathrm{arcTan}\left(\frac{-7}{3}\right)\right) = \frac{-3}{7}\right) & .2 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{\sqrt{2}}{5}\right)\right) = \frac{\sqrt{23}}{5}\right) & .3 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{-5}{9}\right)\right) = -\frac{2\sqrt{14}}{5}\right) \\ .4 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{15}\right) & .5 = \left(\mathrm{Cos}\left(\mathrm{arcTan}\left(\frac{2}{5}\right)\right) = \frac{5\sqrt{29}}{29}\right) & .6 = \left(\mathrm{Sec}\left(\mathrm{arcSin}\left(\frac{-5}{8}\right)\right) = \frac{8\sqrt{39}}{39}\right) \\ .7 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\frac{1}{3}\right)\right) = \frac{3\sqrt{2}}{4}\right) & .8 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(-\frac{\sqrt{7}}{4}\right)\right) = -\frac{\sqrt{7}\sqrt{23}}{23}\right) & .9 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{4}\right)\right) = \frac{\sqrt{13}}{4}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{1}{2}\right) + \mathrm{arcSin}\left(\frac{-3}{4}\right)\right) = \frac{\sqrt{3}\sqrt{7}}{8} - \frac{3}{8}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{1}{3}\right) + \mathrm{arcSin}\left(\frac{4}{7}\right)\right) = \frac{\sqrt{33}}{21} - \frac{8\sqrt{2}}{21}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcSin}\left(\frac{2}{3}\right)\right) = \frac{4\sqrt{5}}{9}\right) & .4 = \left(\cos\left(2\,\mathrm{arcSin}\left(\frac{2}{5}\right)\right) = \frac{17}{25}\right) \\ .5 = \left(\mathrm{arcTan}\left(\mathrm{Cos}\left(\frac{7\pi}{2}\right) + \mathrm{Sin}\left(-\frac{7\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\mathrm{Sec}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{17\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(-\frac{\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\,\alpha^2 - 1, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.645113

$$Ans1 = \begin{bmatrix} .1 = \left(\mathrm{arcSin}\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) & .2 = \left(\mathrm{arcSin}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .3 = \left(\mathrm{arcCos}\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) \\ .4 = (\mathrm{arcSin}(0) = 0) & .5 = (\mathrm{arcTan}(0) = 0) & .6 = (\mathrm{arcSin}(\sqrt{3}) = \mathit{undefined}) \\ .7 = \left(\mathrm{arcTan}\left(-\frac{\sqrt{3}}{3}\right) = -\frac{\pi}{6}\right) & .8 = \left(\mathrm{arcCos}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .9 = (\mathrm{arcCos}(-1) = \pi) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\mathrm{Tan}\left(\mathrm{arcTan}\left(-\frac{\sqrt{3}}{3}\right)\right) = -\frac{\sqrt{3}}{3}\right) & .2 = \left(\mathrm{Cos}(\mathrm{arcTan}(1)) = \frac{\sqrt{2}}{2}\right) & .3 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{1}{2}\right)\right) = \sqrt{3}\right) \\ .4 = \left(\mathrm{Sin}(\mathrm{arcTan}(-1)) = -\frac{\sqrt{2}}{2}\right) & .5 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(-\frac{\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .6 = \left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) \\ .7 = \left(\mathrm{arcSin}\left(\mathrm{Sin}\left(\frac{7\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\mathrm{arcCos}\left(\mathrm{Cos}\left(-\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .9 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(\frac{5\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\mathrm{Csc}\left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{2\sqrt{3}}{3}\right) & .11 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{11\pi}{6}\right)\right)\right) = \sqrt{3}\right) & .12 = \left(\mathrm{ArcSin}\left(\mathrm{Cos}\left(\mathrm{ArcSin}\left(\frac{-1}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{bmatrix}, \; , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(-\frac{\sqrt{5}}{9}\right)\right) = \frac{2\sqrt{19}}{9}\right) & .2 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{-5}{6}\right)\right) = -\frac{5\sqrt{61}}{61}\right) & .3 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{3}{8}\right)\right) = \frac{\sqrt{55}}{8}\right) \\ .4 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\frac{-5}{7}\right)\right) = \frac{7\sqrt{6}}{12}\right) & .5 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{4}{9}\right)\right) = \frac{\sqrt{65}}{4}\right) & .6 = \left(\mathrm{Cos}\left(\mathrm{arcTan}\left(-\frac{\sqrt{2}}{7}\right)\right) = \frac{7\sqrt{51}}{51}\right) \\ .7 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{-5}{7}\right)\right) = -\frac{5\sqrt{6}}{12}\right) & .8 = \left(\mathrm{Cot}\left(\mathrm{arcSin}\left(\frac{\sqrt{2}}{7}\right)\right) = \frac{\sqrt{47}\sqrt{2}}{2}\right) & .9 = \left(\mathrm{Sec}\left(\mathrm{arcTan}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{5}}{2}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{3}{4}\right) + \mathrm{arcSin}\left(\frac{1}{5}\right)\right) = \frac{\sqrt{6}\sqrt{7}}{10} + \frac{3}{20}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{4}{9}\right) + \mathrm{arcSin}\left(\frac{-2}{7}\right)\right) = \frac{4\sqrt{5}}{21} + \frac{2\sqrt{65}}{63}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcCos}\left(\frac{5}{7}\right)\right) = \frac{20\sqrt{6}}{49}\right) & .4 = \left(\cos\left(2\,\mathrm{arcCos}\left(\frac{5}{6}\right)\right) = \frac{7}{18}\right) \\ .5 = \left(\mathrm{arcTan}\left(\mathrm{Cos}\left(\frac{5\pi}{2}\right) + \mathrm{Sin}\left(-\frac{9\pi}{2}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{5\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(-\frac{5\pi}{6}\right)\right)\right) = \frac{\sqrt{3}}{3}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\,\alpha^2 - 1, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.645114

$$Ans1 = \begin{bmatrix} .1 = \left(\arccos\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}\right) & .2 = \left(\arccos\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) & .3 = \left(\arcsin\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) \\ .4 = \left(\arcsin(-1) = -\frac{\pi}{2}\right) & .5 = \left(\arccos(0) = \frac{\pi}{2}\right) & .6 = \left(\arctan(1) = \frac{\pi}{4}\right) \\ .7 = (\arccos(-5) = \textit{undefined}) & .8 = \left(\arcsin\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .9 = \left(\arctan(-\sqrt{3}) = -\frac{\pi}{3}\right) \end{bmatrix}, \begin{bmatrix} M\\a\\t\\h\\@\\M\\U\\T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\arccos\left(\frac{-1}{2}\right)\right) = \frac{-1}{2}\right) & .2 = \left(\cos(\arctan(-\sqrt{3})) = \frac{1}{2}\right) & .3 = \left(\tan\left(\arccos\left(-\frac{\sqrt{2}}{2}\right)\right) = -1\right) \\ .4 = \left(\sin\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)\right) = \frac{1}{2}\right) & .5 = \left(\arccos\left(\cos\left(\frac{2\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .6 = \left(\arccos\left(\sin\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{3}\right) \\ .7 = \left(\arcsin\left(\sin\left(-\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(-\frac{5\pi}{6}\right)\right) = \frac{5\pi}{6}\right) & .9 = \left(\arctan\left(\tan\left(\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\csc\left(\arccos\left(\frac{\sqrt{3}}{2}\right)\right) = 2\right) & .11 = \left(\cot\left(\arcsin\left(\cos\left(-\frac{2\pi}{3}\right)\right)\right) = -\sqrt{3}\right) & .12 = \left(\mathrm{ArcSin}\left(\cos\left(\mathrm{ArcSin}\left(\frac{1}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M\\a\\t\\h\\@\\M\\U\\T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\sec\left(\arctan\left(-\frac{\sqrt{7}}{3}\right)\right) = \frac{4}{3}\right) & .2 = \left(\cos\left(\arctan\left(\frac{7}{5}\right)\right) = \frac{5\sqrt{74}}{74}\right) & .3 = \left(\cos\left(\arcsin\left(\frac{-5}{8}\right)\right) = \frac{\sqrt{39}}{8}\right) \\ .4 = \left(\sin\left(\arccos\left(\frac{-1}{4}\right)\right) = \frac{\sqrt{15}}{4}\right) & .5 = \left(\cot\left(\arccos\left(-\frac{\sqrt{5}}{9}\right)\right) = -\frac{\sqrt{5}\sqrt{19}}{38}\right) & .6 = \left(\tan\left(\arccos\left(\frac{4}{7}\right)\right) = \frac{\sqrt{33}}{4}\right) \\ .7 = \left(\csc\left(\arcsin\left(\frac{1}{3}\right)\right) = 3\right) & .8 = \left(\tan\left(\arcsin\left(\frac{\sqrt{2}}{5}\right)\right) = \frac{\sqrt{23}\sqrt{2}}{23}\right) & .9 = \left(\sin\left(\arctan\left(\frac{-1}{6}\right)\right) = -\frac{\sqrt{37}}{37}\right) \end{bmatrix}, \begin{bmatrix} M\\a\\t\\h\\@\\M\\U\\T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{2}{3}\right) + \arcsin\left(\frac{1}{4}\right)\right) = \frac{\sqrt{5}\sqrt{15}}{12} + \frac{1}{6}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{4}{9}\right)\right) = \frac{8\sqrt{65}}{81}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{3}{4}\right)\right) = \frac{1}{8}\right) \\ .5 = \left(\arctan\left(\cos\left(\frac{9\pi}{2}\right) + \sin\left(\frac{7\pi}{2}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\sec\left(\arccos\left(\sin\left(-\frac{5\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{13\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \begin{bmatrix} M\\a\\t\\h\\@\\M\\U\\T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \quad \begin{bmatrix} M\\U\\T \end{bmatrix}$$

$$Ans6 = 2\alpha^2 - 1, \quad \begin{bmatrix} M\\U\\T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645115

$$Ans1 = \begin{bmatrix} .1 = \left(\arcsin\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .2 = \left(\arccos\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .3 = \left(\arctan(-1) = -\frac{\pi}{4}\right) \\ .4 = \left(\arctan(\sqrt{3}) = \frac{\pi}{3}\right) & .5 = \left(\arccos\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .6 = \left(\arcsin\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) \\ .7 = \left(\arcsin(1) = \frac{\pi}{2}\right) & .8 = (\arcsin(2) = \textit{undefined}) & .9 = (\arccos(-1) = \pi) \end{bmatrix}, \begin{bmatrix} M\\a\\t\\h\\@\\M\\U\\T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = (\tan(\arctan(1)) = 1) & .2 = \left(\tan\left(\arccos\left(\frac{-1}{2}\right)\right) = -\sqrt{3}\right) & .3 = \left(\cos\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) \\ .4 = \left(\sin\left(\arctan\left(-\frac{\sqrt{3}}{3}\right)\right) = \frac{-1}{2}\right) & .5 = \left(\arcsin\left(\sin\left(-\frac{\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .6 = \left(\arcsin\left(\cos\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{3}\right) \\ .7 = \left(\arcsin\left(\sin\left(-\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(\frac{11\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\arctan\left(\tan\left(\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\sec\left(\arccos\left(\frac{\sqrt{2}}{2}\right)\right) = \sqrt{2}\right) & .11 = \left(\sec\left(\arcsin\left(\cos\left(-\frac{3\pi}{4}\right)\right)\right) = \sqrt{2}\right) & .12 = \left(\mathrm{ArcSin}\left(\cos\left(\mathrm{ArcSin}\left(\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M\\a\\t\\h\\@\\M\\U\\T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\sec\left(\arctan\left(\frac{5}{6}\right)\right) = \frac{\sqrt{61}}{6}\right) & .2 = \left(\csc\left(\arccos\left(\frac{4}{9}\right)\right) = \frac{9\sqrt{65}}{65}\right) & .3 = \left(\sin\left(\arccos\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .4 = \left(\cos(\arctan(-6)) = \frac{\sqrt{37}}{37}\right) & .5 = \left(\tan\left(\arccos\left(-\frac{\sqrt{3}}{7}\right)\right) = -\frac{\sqrt{46}\sqrt{3}}{3}\right) & .6 = \left(\cot\left(\arcsin\left(\frac{-5}{9}\right)\right) = -\frac{2\sqrt{14}}{5}\right) \\ .7 = \left(\tan\left(\arcsin\left(\frac{\sqrt{2}}{7}\right)\right) = \frac{\sqrt{47}\sqrt{2}}{47}\right) & .8 = \left(\sin(\arctan(\sqrt{3})) = \frac{\sqrt{3}}{2}\right) & .9 = \left(\cos\left(\arcsin\left(\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{4}\right) \end{bmatrix}, \begin{bmatrix} M\\a\\t\\h\\@\\M\\U\\T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{5}{6}\right) + \arcsin\left(\frac{-1}{5}\right)\right) = \frac{\sqrt{11}\sqrt{6}}{15} - \frac{1}{6}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{3}\right) + \arcsin\left(\frac{5}{8}\right)\right) = \frac{\sqrt{39}}{24} - \frac{5\sqrt{2}}{12}\right) \\ .3 = \left(\sin\left(2\arcsin\left(\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{8}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{1}{3}\right)\right) = \frac{-7}{9}\right) \\ .5 = \left(\arctan\left(\cos(9\pi) + \sin\left(\frac{9\pi}{2}\right)\right) = 0\right) & .6 = \left(\csc\left(\arccos\left(\sin\left(-\frac{13\pi}{6}\right)\right) + \arcsin\left(\cos\left(-\frac{\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, \begin{bmatrix} M\\a\\t\\h\\@\\M\\U\\T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \quad \begin{bmatrix} M\\U\\T \end{bmatrix}$$

$$Ans6 = 2\alpha^2 - 1, \quad \begin{bmatrix} M\\U\\T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.645116

$$Ans1 = \begin{bmatrix} .1 = \left(\arcsin\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .2 = (\arccos(2) = undefined) & .3 = (\arccos(1) = 0) \\ .4 = \left(\arccos\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) & .5 = \left(\arcsin\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) & .6 = \left(\arcsin(-1) = -\frac{\pi}{2}\right) \\ .7 = \left(\arccos\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .8 = (\arctan(0) = 0) & .9 = \left(\arctan(-1) = -\frac{\pi}{4}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = (\tan(\arctan(1)) = 1) & .2 = \left(\cos\left(\arcsin\left(-\frac{\sqrt{3}}{2}\right)\right) = \frac{1}{2}\right) & .3 = \left(\sin\left(\arctan\left(\frac{\sqrt{3}}{3}\right)\right) = \frac{1}{2}\right) \\ .4 = \left(\tan\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}}{3}\right) & .5 = \left(\arcsin\left(\sin\left(-\frac{\pi}{3}\right)\right) = -\frac{\pi}{3}\right) & .6 = \left(\arccos\left(\sin\left(\frac{\pi}{3}\right)\right) = \frac{\pi}{6}\right) \\ .7 = \left(\arcsin\left(\sin\left(\frac{17\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(\frac{11\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\arctan\left(\tan\left(\frac{13\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\cot(\arctan(-\sqrt{3})) = -\frac{\sqrt{3}}{3}\right) & .11 = \left(\csc\left(\arcsin\left(\cos\left(-\frac{\pi}{3}\right)\right)\right) = 2\right) & .12 = \left(\arccos\left(\sin\left(\arccos\left(\frac{1}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\tan\left(\arcsin\left(\frac{-1}{4}\right)\right) = -\frac{\sqrt{15}}{15}\right) & .2 = \left(\cot\left(\arccos\left(\frac{-3}{5}\right)\right) = \frac{-3}{4}\right) & .3 = \left(\sec\left(\arcsin\left(-\frac{\sqrt{3}}{5}\right)\right) = \frac{5\sqrt{22}}{22}\right) \\ .4 = \left(\tan\left(\arccos\left(\frac{\sqrt{5}}{8}\right)\right) = \frac{\sqrt{59}\sqrt{5}}{5}\right) & .5 = \left(\sin\left(\arccos\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .6 = \left(\csc\left(\arctan\left(\frac{-1}{7}\right)\right) = -5\sqrt{2}\right) \\ .7 = \left(\sin(\arctan(-\sqrt{7})) = -\frac{\sqrt{7}\sqrt{2}}{4}\right) & .8 = \left(\cos\left(\arcsin\left(\frac{3}{7}\right)\right) = \frac{2\sqrt{10}}{7}\right) & .9 = \left(\cos\left(\arctan\left(\frac{1}{4}\right)\right) = \frac{4\sqrt{17}}{17}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{1}{6}\right)\right) = \frac{\sqrt{35}\sqrt{3}}{12} + \frac{1}{12}\right) & .2 = \left(\cos\left(\arccos\left(\frac{3}{5}\right) + \arcsin\left(\frac{-3}{8}\right)\right) = \frac{3\sqrt{55}}{40} + \frac{3}{10}\right) \\ .3 = \left(\sin\left(2\arcsin\left(\frac{2}{3}\right)\right) = \frac{4\sqrt{5}}{9}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) \\ .5 = \left(\arctan\left(\cos\left(\frac{7\pi}{2}\right) + \sin\left(-\frac{9\pi}{2}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\sec\left(\arccos\left(\sin\left(-\frac{11\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{4\pi}{3}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\alpha^2, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645117

$$Ans1 = \begin{bmatrix} .1 = \left(\arcsin(1) = \frac{\pi}{2}\right) & .2 = \left(\arctan(-\sqrt{3}) = -\frac{\pi}{3}\right) & .3 = \left(\arcsin\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) \\ .4 = \left(\arccos\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .5 = \left(\arcsin\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) & .6 = \left(\arctan(1) = \frac{\pi}{4}\right) \\ .7 = (\arccos(-1) = \pi) & .8 = \left(\arccos\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .9 = (\arcsin(-2) = undefined) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\tan\left(\arctan\left(\frac{\sqrt{3}}{3}\right)\right) = \frac{\sqrt{3}}{3}\right) & .2 = \left(\sin\left(\arctan\left(-\frac{\sqrt{3}}{3}\right)\right) = \frac{-1}{2}\right) & .3 = \left(\tan\left(\arccos\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) \\ .4 = \left(\cos(\arctan(-1)) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\arctan\left(\tan\left(-\frac{\pi}{4}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\arcsin\left(\cos\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{3}\right) \\ .7 = \left(\arcsin\left(\sin\left(-\frac{7\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(-\frac{\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\arctan\left(\tan\left(\frac{13\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\csc\left(\arccos\left(\frac{-1}{2}\right)\right) = \frac{2\sqrt{3}}{3}\right) & .11 = \left(\csc\left(\arcsin\left(\cos\left(\frac{7\pi}{3}\right)\right)\right) = 2\right) & .12 = \left(\arcsin\left(\cos\left(\arcsin\left(\frac{-1}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\sin\left(\arctan\left(\frac{1}{7}\right)\right) = \frac{\sqrt{2}}{10}\right) & .2 = \left(\sin\left(\arccos\left(\frac{2}{7}\right)\right) = \frac{3\sqrt{5}}{7}\right) & .3 = \left(\cos(\arctan(-\sqrt{3})) = \frac{1}{2}\right) \\ .4 = \left(\cot\left(\arcsin\left(\frac{-1}{6}\right)\right) = -\sqrt{35}\right) & .5 = \left(\tan\left(\arccos\left(\frac{\sqrt{3}}{5}\right)\right) = \frac{\sqrt{22}\sqrt{3}}{3}\right) & .6 = \left(\csc\left(\arctan\left(\frac{-3}{7}\right)\right) = -\frac{\sqrt{58}}{3}\right) \\ .7 = \left(\cos\left(\arcsin\left(-\frac{\sqrt{2}}{5}\right)\right) = \frac{\sqrt{23}}{5}\right) & .8 = \left(\tan\left(\arcsin\left(\frac{5}{8}\right)\right) = \frac{5\sqrt{39}}{39}\right) & .9 = \left(\sec\left(\arccos\left(\frac{-5}{6}\right)\right) = \frac{-6}{5}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{1}{5}\right) + \arcsin\left(\frac{1}{5}\right)\right) = 1\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{3}\right) + \arcsin\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{6} + \frac{\sqrt{2}}{3}\right) \\ .3 = \left(\sin\left(2\arcsin\left(\frac{2}{5}\right)\right) = \frac{4\sqrt{21}}{25}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{1}{2}\right)\right) = \frac{-1}{2}\right) \\ .5 = \left(\arctan\left(\cos\left(\frac{7\pi}{2}\right) + \sin\left(\frac{7\pi}{2}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\cot\left(\arccos\left(\sin\left(\frac{17\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{4\pi}{3}\right)\right)\right) = \sqrt{3}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\alpha^2, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.645118

$$Ans1 = \begin{bmatrix} .1 = \left(\text{arcTan}\left(\frac{\sqrt{3}}{3}\right) = \frac{\pi}{6}\right) & .2 = \left(\text{arcTan}(-1) = -\frac{\pi}{4}\right) & .3 = \left(\text{arcSin}\left(\frac{1}{2}\right) = \frac{\pi}{6}\right) \\ .4 = \left(\text{arcSin}\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) & .5 = \left(\text{arcCos}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .6 = \left(\text{arcSin}(1) = \frac{\pi}{2}\right) \\ .7 = \left(\text{arcCos}(0) = \frac{\pi}{2}\right) & .8 = \left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .9 = (\text{arcSin}(-7) = \textit{undefined}) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\text{arcCos}\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}}{2}\right) & .2 = \left(\text{Tan}\left(\text{arcSin}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) & .3 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .4 = \left(\text{Cos}\left(\text{arcSin}\left(-\frac{\sqrt{3}}{2}\right)\right) = \frac{1}{2}\right) & .5 = \left(\text{arcTan}\left(\text{Tan}\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\text{arcCos}\left(\text{Sin}\left(-\frac{\pi}{6}\right)\right) = \frac{2\pi}{3}\right) \\ .7 = \left(\text{arcSin}\left(\text{Sin}\left(-\frac{5\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\text{arcCos}\left(\text{Cos}\left(\frac{10\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\text{arcTan}\left(\text{Tan}\left(-\frac{11\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = (\text{Sec}(\text{arcTan}(1)) = \sqrt{2}) & .11 = \left(\text{Tan}\left(\text{arcCos}\left(\text{Sin}\left(\frac{11\pi}{6}\right)\right)\right) = -\sqrt{3}\right) & .12 = \left(\text{ArcCos}\left(\text{Sin}\left(\text{ArcCos}\left(\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Sec}\left(\text{arcSin}\left(\frac{5}{9}\right)\right) = \frac{9\sqrt{14}}{28}\right) & .2 = \left(\text{Sin}\left(\text{arcTan}\left(\frac{2}{7}\right)\right) = \frac{2\sqrt{53}}{53}\right) & .3 = \left(\text{Cos}\left(\text{arcTan}\left(-\frac{\sqrt{6}}{5}\right)\right) = \frac{5\sqrt{31}}{31}\right) \\ .4 = \left(\text{Tan}\left(\text{arcCos}\left(-\frac{\sqrt{3}}{5}\right)\right) = -\frac{\sqrt{22}\sqrt{3}}{3}\right) & .5 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{-3}{4}\right)\right) = \frac{\sqrt{7}}{4}\right) & .6 = \left(\text{Csc}\left(\text{arcTan}\left(\frac{-2}{5}\right)\right) = -\frac{\sqrt{29}}{2}\right) \\ .7 = \left(\text{Tan}\left(\text{arcSin}\left(-\frac{\sqrt{5}}{8}\right)\right) = -\frac{\sqrt{59}\sqrt{5}}{59}\right) & .8 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{3}{7}\right)\right) = \frac{2\sqrt{10}}{7}\right) & .9 = \left(\text{Cot}\left(\text{arcCos}\left(\frac{-4}{5}\right)\right) = \frac{-4}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{1}{3}\right) + \text{arcSin}\left(\frac{-5}{9}\right)\right) = \frac{4\sqrt{2}\sqrt{14}}{27} - \frac{5}{27}\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{3}{7}\right) + \text{arcSin}\left(\frac{5}{7}\right)\right) = \frac{6\sqrt{6}}{49} - \frac{10\sqrt{10}}{49}\right) \\ .3 = \left(\text{Sin}\left(2\ \text{arcCos}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .4 = \left(\cos\left(2\ \text{arcSin}\left(\frac{3}{5}\right)\right) = \frac{7}{25}\right) \\ .5 = \left(\text{arcTan}\left(\text{Cos}(10\pi) + \text{Sin}\left(-\frac{13\pi}{2}\right)\right) = 0\right) & .6 = \left(\text{Sec}\left(\text{arcCos}\left(\text{Sin}\left(-\frac{11\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(-\frac{2\pi}{3}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\alpha^2 - 1, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645119

$$Ans1 = \begin{bmatrix} .1 = \left(\text{arcTan}\left(\frac{\sqrt{3}}{3}\right) = \frac{\pi}{6}\right) & .2 = \left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .3 = \left(\text{arcTan}(-1) = -\frac{\pi}{4}\right) \\ .4 = \left(\text{arcSin}(1) = \frac{\pi}{2}\right) & .5 = \left(\text{arcSin}\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) & .6 = (\text{arcCos}(-1) = \pi) \\ .7 = (\text{arcSin}(7) = \textit{undefined}) & .8 = \left(\text{arcSin}\left(\frac{1}{2}\right) = \frac{\pi}{6}\right) & .9 = \left(\text{arcCos}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right)\right) = -\frac{\sqrt{2}}{2}\right) & .2 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{1}{2}\right)\right) = \sqrt{3}\right) & .3 = \left(\text{Cos}\left(\text{arcTan}\left(-\frac{\sqrt{3}}{3}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .4 = \left(\text{Sin}(\text{arcTan}(1)) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\text{arcCos}\left(\text{Cos}\left(\frac{5\pi}{6}\right)\right) = \frac{5\pi}{6}\right) & .6 = \left(\text{arcSin}\left(\text{Cos}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{3}\right) \\ .7 = \left(\text{arcSin}\left(\text{Sin}\left(\frac{7\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\text{arcCos}\left(\text{Cos}\left(-\frac{3\pi}{4}\right)\right) = \frac{3\pi}{4}\right) & .9 = \left(\text{arcTan}\left(\text{Tan}\left(-\frac{13\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = (\text{Csc}(\text{arcTan}(-1)) = -\sqrt{2}) & .11 = \left(\text{Cot}\left(\text{arcSin}\left(\text{Cos}\left(\frac{8\pi}{3}\right)\right)\right) = -\sqrt{3}\right) & .12 = \left(\text{ArcSin}\left(\text{Cos}\left(\text{ArcSin}\left(\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, \ , \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Cot}\left(\text{arcTan}\left(\frac{-1}{5}\right)\right) = -5\right) & .2 = \left(\text{Sin}\left(\text{arcTan}\left(\frac{7}{2}\right)\right) = \frac{7\sqrt{53}}{53}\right) & .3 = \left(\text{Cos}\left(\text{arcTan}\left(-\frac{\sqrt{6}}{5}\right)\right) = \frac{5\sqrt{31}}{31}\right) \\ .4 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{3}{5}\right)\right) = \frac{4}{5}\right) & .5 = \left(\text{Tan}\left(\text{arcSin}\left(\frac{-4}{7}\right)\right) = -\frac{4\sqrt{33}}{33}\right) & .6 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{-5}{8}\right)\right) = -\frac{\sqrt{39}}{5}\right) \\ .7 = \left(\text{Sec}\left(\text{arcSin}\left(\frac{\sqrt{2}}{3}\right)\right) = \frac{3\sqrt{7}}{7}\right) & .8 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{\sqrt{2}}{7}\right)\right) = \frac{\sqrt{47}}{7}\right) & .9 = \left(\text{Csc}\left(\text{arcCos}\left(\frac{3}{8}\right)\right) = \frac{8\sqrt{55}}{55}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{5}{9}\right) + \text{arcSin}\left(\frac{3}{8}\right)\right) = \frac{\sqrt{14}\sqrt{55}}{36} + \frac{5}{24}\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{3}{8}\right) + \text{arcSin}\left(\frac{-5}{8}\right)\right) = \frac{3\sqrt{39}}{64} + \frac{5\sqrt{55}}{64}\right) \\ .3 = \left(\text{Sin}\left(2\ \text{arcSin}\left(\frac{5}{7}\right)\right) = \frac{20\sqrt{6}}{49}\right) & .4 = \left(\cos\left(2\ \text{arcSin}\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) \\ .5 = \left(\text{arcTan}\left(\text{Cos}(2\pi) + \text{Sin}\left(-\frac{9\pi}{2}\right)\right) = 0\right) & .6 = \left(\text{Csc}\left(\text{arcCos}\left(\text{Sin}\left(\frac{17\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(-\frac{\pi}{6}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\alpha^2, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645120

$$Ans1 = \begin{bmatrix} .1 = \left(\arctan(1) = \frac{\pi}{4}\right) & .2 = \left(\arccos\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) & .3 = \left(\arccos(0) = \frac{\pi}{2}\right) \\ .4 = \left(\arctan(-\sqrt{3}) = -\frac{\pi}{3}\right) & .5 = \left(\arcsin\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .6 = \left(\arcsin(-1) = -\frac{\pi}{2}\right) \\ .7 = \left(\arcsin\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) & .8 = (\arccos(-7) = undefined) & .9 = \left(\arccos\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\sin\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .2 = \left(\tan\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)\right) = \sqrt{3}\right) & .3 = \left(\sin\left(\arccos\left(-\frac{\sqrt{3}}{2}\right)\right) = \frac{1}{2}\right) \\ .4 = \left(\cos\left(\arcsin\left(-\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\arcsin\left(\sin\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\arccos\left(\sin\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{3}\right) \\ .7 = \left(\arcsin\left(\sin\left(-\frac{7\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(\frac{10\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\arctan\left(\tan\left(\frac{11\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\cot\left(\arcsin\left(\frac{1}{2}\right)\right) = \sqrt{3}\right) & .11 = \left(\sec\left(\arccos\left(\sin\left(-\frac{11\pi}{6}\right)\right)\right) = 2\right) & .12 = \left(\mathrm{ArcSin}\left(\cos\left(\mathrm{ArcSin}\left(-\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\tan\left(\arcsin\left(\frac{-1}{4}\right)\right) = -\frac{\sqrt{15}}{15}\right) & .2 = \left(\sin\left(\arctan\left(\frac{-1}{3}\right)\right) = -\frac{\sqrt{10}}{10}\right) & .3 = \left(\csc\left(\arcsin\left(-\frac{\sqrt{2}}{3}\right)\right) = -\frac{3\sqrt{2}}{2}\right) \\ .4 = \left(\sec\left(\arccos\left(\frac{3}{7}\right)\right) = \frac{7}{3}\right) & .5 = \left(\cot\left(\arctan\left(\frac{5}{6}\right)\right) = \frac{6}{5}\right) & .6 = \left(\cos\left(\arcsin\left(\frac{5}{6}\right)\right) = \frac{\sqrt{11}}{6}\right) \\ .7 = \left(\cos(\arctan(\sqrt{7})) = \frac{\sqrt{2}}{4}\right) & .8 = \left(\tan\left(\arccos\left(-\frac{\sqrt{2}}{3}\right)\right) = -\frac{\sqrt{7}\sqrt{2}}{2}\right) & .9 = \left(\sin\left(\arccos\left(\frac{-1}{6}\right)\right) = \frac{\sqrt{35}}{6}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{4}{5}\right) + \arcsin\left(\frac{-2}{7}\right)\right) = \frac{9\sqrt{5}}{35} - \frac{8}{35}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{6}\right) + \arcsin\left(\frac{2}{3}\right)\right) = \frac{\sqrt{5}}{18} - \frac{\sqrt{35}}{9}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{2}{5}\right)\right) = \frac{4\sqrt{21}}{25}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{1}{6}\right)\right) = \frac{-17}{18}\right) \\ .5 = \left(\arctan(\cos(\pi) + \sin(-2\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\sec\left(\arccos\left(\sin\left(-\frac{17\pi}{6}\right)\right) + \arcsin\left(\cos\left(-\frac{5\pi}{6}\right)\right)\right) = 2\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \quad \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\alpha^2 - 1, \quad \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645121

$$Ans1 = \begin{bmatrix} .1 = (\arccos(-1) = \pi) & .2 = (\arctan(0) = 0) & .3 = \left(\arccos\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) \\ .4 = \left(\arcsin(1) = \frac{\pi}{2}\right) & .5 = \left(\arcsin\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) & .6 = (\arcsin(\sqrt{3}) = undefined) \\ .7 = \left(\arctan\left(-\frac{\sqrt{3}}{3}\right) = -\frac{\pi}{6}\right) & .8 = \left(\arcsin\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .9 = \left(\arccos\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\sin\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .2 = \left(\tan\left(\arccos\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) & .3 = \left(\cos\left(\arcsin\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .4 = \left(\sin\left(\arccos\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\arctan\left(\tan\left(\frac{\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .6 = \left(\arcsin\left(\cos\left(\frac{2\pi}{3}\right)\right) = -\frac{\pi}{6}\right) \\ .7 = \left(\arcsin\left(\sin\left(-\frac{13\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(\frac{4\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\arctan\left(\tan\left(-\frac{7\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\csc\left(\arcsin\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{2\sqrt{3}}{3}\right) & .11 = \left(\tan\left(\arcsin\left(\cos\left(-\frac{5\pi}{6}\right)\right)\right) = -\sqrt{3}\right) & .12 = \left(\mathrm{ArcSin}\left(\cos\left(\mathrm{ArcSin}\left(-\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{-1}{3}\right)\right) = \frac{2\sqrt{2}}{3}\right) & .2 = \left(\cos\left(\arctan\left(\frac{4}{5}\right)\right) = \frac{5\sqrt{41}}{41}\right) & .3 = \left(\tan\left(\arcsin\left(\frac{-1}{4}\right)\right) = -\frac{\sqrt{15}}{15}\right) \\ .4 = \left(\cot\left(\arccos\left(-\frac{\sqrt{5}}{8}\right)\right) = -\frac{\sqrt{59}\sqrt{5}}{59}\right) & .5 = \left(\sec\left(\arctan\left(\frac{-3}{4}\right)\right) = \frac{5}{4}\right) & .6 = \left(\cos\left(\arcsin\left(\frac{\sqrt{6}}{11}\right)\right) = \frac{\sqrt{115}}{11}\right) \\ .7 = \left(\tan\left(\arccos\left(\frac{1}{3}\right)\right) = 2\sqrt{2}\right) & .8 = \left(\csc\left(\arcsin\left(\frac{4}{7}\right)\right) = \frac{7}{4}\right) & .9 = \left(\sin\left(\arctan\left(-\frac{\sqrt{5}}{6}\right)\right) = -\frac{\sqrt{5}\sqrt{41}}{41}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{1}{2}\right)\right) = 1\right) & .2 = \left(\cos\left(\arccos\left(\frac{2}{5}\right) + \arcsin\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{5} + \frac{\sqrt{21}}{10}\right) \\ .3 = \left(\sin\left(2\arcsin\left(\frac{1}{5}\right)\right) = \frac{4\sqrt{6}}{25}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{5}{8}\right)\right) = \frac{7}{32}\right) \\ .5 = \left(\arctan\left(\cos\left(\frac{7\pi}{2}\right) + \sin\left(-\frac{5\pi}{2}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\cot\left(\arccos\left(\sin\left(\frac{13\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{10\pi}{3}\right)\right)\right) = \sqrt{3}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \quad \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\alpha^2 - 1, \quad \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645122

$$Ans1 = \begin{bmatrix} .1 = \left(\mathrm{arcCos}\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .2 = \left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .3 = \left(\mathrm{arcSin}(1) = \frac{\pi}{2}\right) \\ .4 = (\mathrm{arcTan}(0) = 0) & .5 = \left(\mathrm{arcCos}(0) = \frac{\pi}{2}\right) & .6 = \left(\mathrm{arcCos}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \\ .7 = \left(\mathrm{arcSin}\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) & .8 = \left(\mathrm{arcTan}(-\sqrt{3}) = -\frac{\pi}{3}\right) & .9 = (\mathrm{arcSin}(-2) = undefined) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\mathrm{arcCos}\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}}{2}\right) & .2 = \left(\mathrm{Sin}(\mathrm{arcTan}(\sqrt{3})) = \frac{\sqrt{3}}{2}\right) & .3 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{2}\right)\right) = \sqrt{3}\right) \\ .4 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .5 = \left(\mathrm{arcSin}\left(\mathrm{Sin}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) \\ .7 = \left(\mathrm{arcSin}\left(\mathrm{Sin}\left(-\frac{13\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\mathrm{arcCos}\left(\mathrm{Cos}\left(-\frac{3\pi}{4}\right)\right) = \frac{3\pi}{4}\right) & .9 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(-\frac{17\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\mathrm{Cot}\left(\mathrm{arcTan}\left(-\frac{\sqrt{3}}{3}\right)\right) = -\sqrt{3}\right) & .11 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{11\pi}{6}\right)\right)\right) = \sqrt{3}\right) & .12 = \left(\mathrm{ArcSin}\left(\mathrm{Cos}\left(\mathrm{ArcSin}\left(-\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, \; , \begin{bmatrix} :) \\ :(\\ \left[\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Cos}(\mathrm{arcTan}(-\sqrt{6})) = \frac{\sqrt{7}}{7}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{2}{7}\right)\right) = \frac{3\sqrt{5}}{7}\right) & .3 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{1}{5}\right)\right) = \frac{2\sqrt{6}}{5}\right) \\ .4 = \left(\mathrm{Csc}\left(\mathrm{arcSin}\left(\frac{\sqrt{5}}{6}\right)\right) = \frac{6\sqrt{5}}{5}\right) & .5 = \left(\mathrm{Sec}\left(\mathrm{arcTan}\left(\frac{-2}{7}\right)\right) = \frac{\sqrt{53}}{7}\right) & .6 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{\sqrt{3}}{7}\right)\right) = \frac{\sqrt{46}\sqrt{3}}{3}\right) \\ .7 = \left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\frac{-4}{5}\right)\right) = \frac{-4}{3}\right) & .8 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{7}{3}\right)\right) = \frac{7\sqrt{58}}{58}\right) & .9 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{-5}{9}\right)\right) = -\frac{5\sqrt{14}}{28}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{2}{5}\right) + \mathrm{arcSin}\left(\frac{1}{5}\right)\right) = \frac{2\sqrt{21}\sqrt{6}}{25} + \frac{2}{25}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{2}{3}\right) + \mathrm{arcSin}\left(\frac{-4}{5}\right)\right) = \frac{4\sqrt{5}}{15} + \frac{2}{5}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcCos}\left(\frac{5}{6}\right)\right) = \frac{5\sqrt{11}}{18}\right) & .4 = \left(\cos\left(2\,\mathrm{arcCos}\left(\frac{4}{9}\right)\right) = \frac{-49}{81}\right) \\ .5 = \left(\mathrm{arcTan}\left(\mathrm{Cos}(9\pi) + \mathrm{Sin}\left(\frac{5\pi}{2}\right)\right) = 0\right) & .6 = \left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{5\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{7\pi}{3}\right)\right)\right) = -\sqrt{3}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\alpha^2 - 1, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645123

$$Ans1 = \begin{bmatrix} .1 = \left(\mathrm{arcSin}\left(\frac{1}{2}\right) = \frac{\pi}{6}\right) & .2 = (\mathrm{arcCos}(-7) = undefined) & .3 = \left(\mathrm{arcTan}(1) = \frac{\pi}{4}\right) \\ .4 = \left(\mathrm{arcSin}\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) & .5 = \left(\mathrm{arcCos}\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .6 = (\mathrm{arcTan}(0) = 0) \\ .7 = \left(\mathrm{arcCos}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .8 = \left(\mathrm{arcCos}(0) = \frac{\pi}{2}\right) & .9 = \left(\mathrm{arcSin}(1) = \frac{\pi}{2}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcSin}\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}}{2}\right) & .2 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{\sqrt{2}}{2}\right)\right) = 1\right) & .3 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{\sqrt{2}}{2}\right)\right) = \frac{\sqrt{2}}{2}\right) \\ .4 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .5 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{3\pi}{4}\right)\right) = -\frac{\pi}{4}\right) \\ .7 = \left(\mathrm{arcSin}\left(\mathrm{Sin}\left(\frac{7\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\mathrm{arcCos}\left(\mathrm{Cos}\left(\frac{10\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\mathrm{arcTan}\left(\mathrm{Tan}\left(\frac{7\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\frac{\sqrt{3}}{2}\right)\right) = 2\right) & .11 = \left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{5\pi}{6}\right)\right)\right) = -\frac{\sqrt{3}}{3}\right) & .12 = \left(\mathrm{ArcSin}\left(\mathrm{Cos}\left(\mathrm{ArcSin}\left(\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \; , \begin{bmatrix} :) \\ :(\\ \left[\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{-1}{2}\right)\right) = -\frac{\sqrt{3}}{3}\right) & .2 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{\sqrt{6}}{7}\right)\right) = \frac{\sqrt{6}\sqrt{43}}{6}\right) & .3 = \left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\frac{-4}{9}\right)\right) = -\frac{4\sqrt{65}}{65}\right) \\ .4 = \left(\mathrm{Sec}\left(\mathrm{arcTan}\left(\frac{4}{3}\right)\right) = \frac{5}{3}\right) & .5 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{2}{3}\right)\right) = \frac{\sqrt{5}}{3}\right) & .6 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{4}{9}\right)\right) = \frac{\sqrt{65}}{9}\right) \\ .7 = \left(\mathrm{Cos}\left(\mathrm{arcTan}\left(\frac{-1}{6}\right)\right) = \frac{6\sqrt{37}}{37}\right) & .8 = \left(\mathrm{Csc}\left(\mathrm{arcSin}\left(-\frac{\sqrt{2}}{7}\right)\right) = -\frac{7\sqrt{2}}{2}\right) & .9 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{\sqrt{5}}{2}\right)\right) = \frac{\sqrt{5}}{3}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{1}{3}\right) + \mathrm{arcSin}\left(\frac{5}{7}\right)\right) = \frac{4\sqrt{2}\sqrt{6}}{21} + \frac{5}{21}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{4}{7}\right) + \mathrm{arcSin}\left(\frac{-1}{2}\right)\right) = \frac{2\sqrt{3}}{7} + \frac{\sqrt{33}}{14}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcCos}\left(\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{8}\right) & .4 = \left(\cos\left(2\,\mathrm{arcSin}\left(\frac{1}{4}\right)\right) = \frac{7}{8}\right) \\ .5 = \left(\mathrm{arcTan}\left(\mathrm{Cos}(10\pi) + \mathrm{Sin}\left(-\frac{13\pi}{2}\right)\right) = 0\right) & .6 = \left(\mathrm{Sec}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{13\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{7\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\alpha^2, \; , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans1=\begin{bmatrix} .1=\left(\arccos\left(-\frac{\sqrt{2}}{2}\right)=\frac{3\pi}{4}\right) & .2=\left(\arctan(1)=\frac{\pi}{4}\right) & .3=\left(\arccos\left(\frac{1}{2}\right)=\frac{\pi}{3}\right)\\ .4=\left(\arctan(-\sqrt{3})=-\frac{\pi}{3}\right) & .5=\left(\arcsin(-1)=-\frac{\pi}{2}\right) & .6=(\arccos(-\sqrt{3})=undefined)\\ .7=\left(\arccos(0)=\frac{\pi}{2}\right) & .8=\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)=\frac{\pi}{4}\right) & .9=\left(\arcsin\left(-\frac{\sqrt{3}}{2}\right)=-\frac{\pi}{3}\right)\end{bmatrix},\ ,[M\ a\ t\ h\ @\ M\ U\ T]$$

$$Ans2=\begin{bmatrix} .1=\left(\operatorname{Sin}\left(\arcsin\left(-\frac{\sqrt{3}}{2}\right)\right)=-\frac{\sqrt{3}}{2}\right) & .2=\left(\operatorname{Cos}\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)\right)=\frac{1}{2}\right) & .3=\left(\operatorname{Tan}\left(\arccos\left(\frac{\sqrt{2}}{2}\right)\right)=1\right)\\ .4=\left(\operatorname{Sin}(\arctan(1))=\frac{\sqrt{2}}{2}\right) & .5=\left(\arcsin\left(\operatorname{Sin}\left(\frac{\pi}{3}\right)\right)=\frac{\pi}{3}\right) & .6=\left(\arcsin\left(\operatorname{Cos}\left(\frac{\pi}{6}\right)\right)=\frac{\pi}{3}\right)\\ .7=\left(\arcsin\left(\operatorname{Sin}\left(-\frac{11\pi}{6}\right)\right)=\frac{\pi}{6}\right) & .8=\left(\arccos\left(\operatorname{Cos}\left(\frac{7\pi}{3}\right)\right)=\frac{\pi}{3}\right) & .9=\left(\arctan\left(\operatorname{Tan}\left(-\frac{13\pi}{6}\right)\right)=-\frac{\pi}{6}\right)\\ .10=\left(\operatorname{Sec}\left(\arccos\left(\frac{-1}{2}\right)\right)=-2\right) & .11=\left(\operatorname{Cot}\left(\arcsin\left(\operatorname{Cos}\left(\frac{13\pi}{3}\right)\right)\right)=\sqrt{3}\right) & .12=\left(\operatorname{ArcCos}\left(\operatorname{Sin}\left(\operatorname{ArcCos}\left(-\frac{\sqrt{2}}{2}\right)\right)\right)=\frac{\pi}{4}\right)\end{bmatrix},\ ,[:)\ :(\ [[M\ a\ t\ h\ @\ M\ U\ T]]\ :)\ :(]$$

$$Ans3=\begin{bmatrix} .1=\left(\operatorname{Sin}\left(\arctan\left(\frac{1}{4}\right)\right)=\frac{\sqrt{17}}{17}\right) & .2=\left(\operatorname{Sin}\left(\arccos\left(\frac{\sqrt{7}}{8}\right)\right)=\frac{\sqrt{57}}{8}\right) & .3=\left(\operatorname{Cos}\left(\arcsin\left(\frac{4}{7}\right)\right)=\frac{\sqrt{33}}{7}\right)\\ .4=\left(\operatorname{Csc}\left(\arctan\left(\frac{-5}{2}\right)\right)=-\frac{\sqrt{29}}{5}\right) & .5=\left(\operatorname{Tan}\left(\arccos\left(\frac{2}{5}\right)\right)=\frac{\sqrt{21}}{2}\right) & .6=\left(\operatorname{Cos}\left(\arctan\left(\frac{\sqrt{3}}{5}\right)\right)=\frac{5\sqrt{7}}{14}\right)\\ .7=\left(\operatorname{Tan}\left(\arcsin\left(\frac{-4}{7}\right)\right)=-\frac{4\sqrt{33}}{33}\right) & .8=\left(\operatorname{Cot}\left(\arcsin\left(-\frac{\sqrt{3}}{4}\right)\right)=-\frac{\sqrt{13}\sqrt{3}}{3}\right) & .9=\left(\operatorname{Sec}\left(\arccos\left(\frac{-5}{7}\right)\right)=\frac{-7}{5}\right)\end{bmatrix},\ ,[M\ a\ t\ h\ @\ M\ U\ T]$$

$$Ans4=\begin{bmatrix} .1=\left(\operatorname{Sin}\left(\arccos\left(\frac{2}{3}\right)+\arcsin\left(\frac{5}{9}\right)\right)=\frac{2\sqrt{5}\sqrt{14}}{27}+\frac{10}{27}\right) & .2=\left(\operatorname{Cos}\left(\arccos\left(\frac{4}{7}\right)+\arcsin\left(\frac{-1}{2}\right)\right)=\frac{2\sqrt{3}}{7}+\frac{\sqrt{33}}{14}\right)\\ .3=\left(\operatorname{Sin}\left(2\arcsin\left(\frac{3}{4}\right)\right)=\frac{3\sqrt{7}}{8}\right) & .4=\left(\cos\left(2\arccos\left(\frac{3}{7}\right)\right)=\frac{-31}{49}\right)\\ .5=\left(\arctan\left(\operatorname{Cos}(5\pi)+\operatorname{Sin}\left(\frac{13\pi}{2}\right)\right)=0\right) & .6=\left(\operatorname{Csc}\left(\arccos\left(\operatorname{Sin}\left(-\frac{17\pi}{6}\right)\right)+\arcsin\left(\operatorname{Cos}\left(\frac{5\pi}{3}\right)\right)\right)=2\right)\end{bmatrix},\ ,[M\ a\ t\ h\ @\ M\ U\ T]$$

$$Ans5=2\alpha\sqrt{1-\alpha^2},\ ,[M\ U\ T]$$

$$Ans6=1-2\alpha^2,\ ,[M\ U\ T]$$

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TrigonometryExercise5 Answers for No.645125

$$Ans1=\begin{bmatrix} .1=\left(\arccos(0)=\frac{\pi}{2}\right) & .2=\left(\arccos\left(\frac{\sqrt{3}}{2}\right)=\frac{\pi}{6}\right) & .3=(\arcsin(\sqrt{2})=undefined)\\ .4=\left(\arctan\left(\frac{\sqrt{3}}{3}\right)=\frac{\pi}{6}\right) & .5=\left(\arctan(-1)=-\frac{\pi}{4}\right) & .6=\left(\arcsin\left(-\frac{\sqrt{2}}{2}\right)=-\frac{\pi}{4}\right)\\ .7=\left(\arccos\left(\frac{-1}{2}\right)=\frac{2\pi}{3}\right) & .8=\left(\arcsin\left(\frac{1}{2}\right)=\frac{\pi}{6}\right) & .9=\left(\arcsin(-1)=-\frac{\pi}{2}\right)\end{bmatrix},\ ,[M\ a\ t\ h\ @\ M\ U\ T]$$

$$Ans2=\begin{bmatrix} .1=\left(\cos\left(\arccos\left(\frac{-1}{2}\right)\right)=\frac{-1}{2}\right) & .2=\left(\operatorname{Sin}\left(\arctan\left(-\frac{\sqrt{3}}{3}\right)\right)=\frac{-1}{2}\right) & .3=\left(\operatorname{Cos}(\arctan(-\sqrt{3}))=\frac{1}{2}\right)\\ .4=\left(\operatorname{Tan}\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)\right)=\sqrt{3}\right) & .5=\left(\arcsin\left(\operatorname{Sin}\left(\frac{\pi}{4}\right)\right)=\frac{\pi}{4}\right) & .6=\left(\arcsin\left(\operatorname{Cos}\left(\frac{\pi}{4}\right)\right)=\frac{\pi}{4}\right)\\ .7=\left(\arcsin\left(\operatorname{Sin}\left(-\frac{11\pi}{6}\right)\right)=\frac{\pi}{6}\right) & .8=\left(\arccos\left(\operatorname{Cos}\left(\frac{4\pi}{3}\right)\right)=\frac{2\pi}{3}\right) & .9=\left(\arctan\left(\operatorname{Tan}\left(\frac{7\pi}{6}\right)\right)=\frac{\pi}{6}\right)\\ .10=\left(\operatorname{Sec}\left(\arcsin\left(\frac{\sqrt{2}}{2}\right)\right)=\sqrt{2}\right) & .11=\left(\operatorname{Sec}\left(\arcsin\left(\operatorname{Cos}\left(-\frac{5\pi}{6}\right)\right)\right)=2\right) & .12=\left(\operatorname{ArcCos}\left(\operatorname{Sin}\left(\operatorname{ArcCos}\left(-\frac{\sqrt{2}}{2}\right)\right)\right)=\frac{\pi}{4}\right)\end{bmatrix},\ ,[:)\ :(\ [[M\ a\ t\ h\ @\ M\ U\ T]]\ :)\ :(]$$

$$Ans3=\begin{bmatrix} .1=\left(\operatorname{Tan}\left(\arccos\left(\frac{\sqrt{5}}{6}\right)\right)=\frac{\sqrt{31}\sqrt{5}}{5}\right) & .2=\left(\operatorname{Cos}\left(\arctan\left(\frac{1}{6}\right)\right)=\frac{6\sqrt{37}}{37}\right) & .3=\left(\operatorname{Sin}\left(\arctan\left(\frac{-6}{5}\right)\right)=-\frac{6\sqrt{61}}{61}\right)\\ .4=\left(\operatorname{Cos}\left(\arcsin\left(\frac{1}{2}\right)\right)=\frac{\sqrt{3}}{2}\right) & .5=\left(\operatorname{Sin}\left(\arccos\left(\frac{3}{5}\right)\right)=\frac{4}{5}\right) & .6=\left(\operatorname{Sec}\left(\arctan\left(-\frac{\sqrt{3}}{5}\right)\right)=\frac{2\sqrt{7}}{5}\right)\\ .7=\left(\operatorname{Tan}\left(\arcsin\left(\frac{-4}{9}\right)\right)=-\frac{4\sqrt{65}}{65}\right) & .8=\left(\operatorname{Csc}\left(\arccos\left(\frac{-5}{6}\right)\right)=\frac{6\sqrt{11}}{11}\right) & .9=\left(\operatorname{Cot}\left(\arcsin\left(-\frac{\sqrt{2}}{3}\right)\right)=-\frac{\sqrt{7}\sqrt{2}}{2}\right)\end{bmatrix},\ ,[M\ a\ t\ h\ @\ M\ U\ T]$$

$$Ans4=\begin{bmatrix} .1=\left(\operatorname{Sin}\left(\arccos\left(\frac{1}{6}\right)+\arcsin\left(\frac{1}{6}\right)\right)=1\right) & .2=\left(\operatorname{Cos}\left(\arccos\left(\frac{5}{6}\right)+\arcsin\left(\frac{-3}{8}\right)\right)=\frac{5\sqrt{55}}{48}+\frac{\sqrt{11}}{16}\right)\\ .3=\left(\operatorname{Sin}\left(2\arcsin\left(\frac{4}{9}\right)\right)=\frac{8\sqrt{65}}{81}\right) & .4=\left(\cos\left(2\arcsin\left(\frac{5}{6}\right)\right)=\frac{-7}{18}\right)\\ .5=\left(\arctan\left(\operatorname{Cos}(10\pi)+\operatorname{Sin}\left(-\frac{13\pi}{2}\right)\right)=0\right) & .6=\left(\operatorname{Sec}\left(\arccos\left(\operatorname{Sin}\left(\frac{13\pi}{6}\right)\right)+\arcsin\left(\operatorname{Cos}\left(\frac{8\pi}{3}\right)\right)\right)=\frac{2\sqrt{3}}{3}\right)\end{bmatrix},\ ,[M\ a\ t\ h\ @\ M\ U\ T]$$

$$Ans5=2\alpha\sqrt{1-\alpha^2},\ ,[M\ U\ T]$$

$$Ans6=2\alpha^2-1,\ ,[M\ U\ T]$$

TrigonometryExercise5 Answers for No.645126

$$Ans1 = \begin{bmatrix} .1 = \left(\arcsin\left(\frac{-1}{2}\right) = -\frac{\pi}{6}\right) & .2 = \left(\arcsin(-\sqrt{2}) = undefined\right) & .3 = \left(\arccos(0) = \frac{\pi}{2}\right) \\ .4 = \left(\arccos\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}\right) & .5 = \left(\arcsin\left(\frac{1}{2}\right) = \frac{\pi}{6}\right) & .6 = \left(\arccos\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \\ .7 = \left(\arcsin(-1) = -\frac{\pi}{2}\right) & .8 = \left(\arctan(-1) = -\frac{\pi}{4}\right) & .9 = \left(\arctan(0) = 0\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\sin\left(\arcsin\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) & .2 = \left(\tan\left(\arccos\left(\frac{1}{2}\right)\right) = \sqrt{3}\right) & .3 = \left(\cos\left(\arctan\left(-\frac{\sqrt{3}}{3}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .4 = \left(\sin(\arctan(-1)) = -\frac{\sqrt{2}}{2}\right) & .5 = \left(\arctan\left(\tan\left(\frac{\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .6 = \left(\arccos\left(\sin\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) \\ .7 = \left(\arcsin\left(\sin\left(-\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(-\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .9 = \left(\arctan\left(\tan\left(\frac{7\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\cot\left(\arccos\left(\frac{\sqrt{3}}{2}\right)\right) = \sqrt{3}\right) & .11 = \left(\sec\left(\arcsin\left(\cos\left(-\frac{3\pi}{4}\right)\right)\right) = \sqrt{2}\right) & .12 = \left(\mathrm{ArcSin}\left(\cos\left(\mathrm{ArcSin}\left(-\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\tan\left(\arcsin\left(\frac{5}{9}\right)\right) = \frac{5\sqrt{14}}{28}\right) & .2 = \left(\cos\left(\arcsin\left(-\frac{\sqrt{5}}{9}\right)\right) = \frac{2\sqrt{19}}{9}\right) & .3 = \left(\sin\left(\arccos\left(\frac{-5}{6}\right)\right) = \frac{\sqrt{11}}{6}\right) \\ .4 = \left(\sec\left(\arccos\left(\frac{5}{8}\right)\right) = \frac{8}{5}\right) & .5 = \left(\sin\left(\arctan\left(\frac{-7}{4}\right)\right) = -\frac{7\sqrt{65}}{65}\right) & .6 = \left(\cot\left(\arctan\left(-\frac{\sqrt{7}}{3}\right)\right) = -\frac{3\sqrt{7}}{7}\right) \\ .7 = \left(\tan\left(\arccos\left(\frac{\sqrt{5}}{8}\right)\right) = \frac{\sqrt{59}\sqrt{5}}{5}\right) & .8 = \left(\cos\left(\arctan\left(\frac{3}{7}\right)\right) = \frac{7\sqrt{58}}{58}\right) & .9 = \left(\csc\left(\arcsin\left(\frac{-1}{4}\right)\right) = -4\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{2}{7}\right) + \arcsin\left(\frac{1}{5}\right)\right) = \frac{6\sqrt{5}\sqrt{6}}{35} + \frac{2}{35}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{4}\right) + \arcsin\left(\frac{-2}{3}\right)\right) = \frac{\sqrt{5}}{12} + \frac{\sqrt{15}}{6}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{3}{4}\right)\right) = \frac{-1}{8}\right) \\ .5 = \left(\arctan(\cos(5\pi) + \sin(-3\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\csc\left(\arccos\left(\sin\left(\frac{5\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{4\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\alpha^2 - 1, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.645127

$$Ans1 = \begin{bmatrix} .1 = \left(\arcsin(1) = \frac{\pi}{2}\right) & .2 = \left(\arccos\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}\right) & .3 = \left(\arccos(0) = \frac{\pi}{2}\right) \\ .4 = \left(\arcsin\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) & .5 = \left(\arctan\left(\frac{\sqrt{3}}{3}\right) = \frac{\pi}{6}\right) & .6 = \left(\arccos\left(\frac{1}{2}\right) = \frac{\pi}{3}\right) \\ .7 = \left(\arccos(-\sqrt{3}) = undefined\right) & .8 = \left(\arcsin\left(-\frac{\sqrt{2}}{2}\right) = -\frac{\pi}{4}\right) & .9 = \left(\arctan(0) = 0\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\arccos\left(\frac{-1}{2}\right)\right) = \frac{-1}{2}\right) & .2 = \left(\cos(\arctan(\sqrt{3})) = \frac{1}{2}\right) & .3 = \left(\sin(\arctan(-1)) = -\frac{\sqrt{2}}{2}\right) \\ .4 = \left(\tan\left(\arccos\left(-\frac{\sqrt{2}}{2}\right)\right) = -1\right) & .5 = \left(\arccos\left(\cos\left(\frac{\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .6 = \left(\arcsin\left(\cos\left(\frac{3\pi}{4}\right)\right) = -\frac{\pi}{4}\right) \\ .7 = \left(\arcsin\left(\sin\left(-\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\arccos\left(\cos\left(-\frac{3\pi}{4}\right)\right) = \frac{3\pi}{4}\right) & .9 = \left(\arctan\left(\tan\left(-\frac{11\pi}{6}\right)\right) = \frac{\pi}{6}\right) \\ .10 = \left(\csc\left(\arcsin\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{2\sqrt{3}}{3}\right) & .11 = \left(\cot\left(\arccos\left(\sin\left(-\frac{7\pi}{6}\right)\right)\right) = \frac{\sqrt{3}}{3}\right) & .12 = \left(\mathrm{ArcCos}\left(\sin\left(\mathrm{ArcCos}\left(\frac{1}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, \begin{bmatrix} :) \\ :(\\ \left[\left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]\right] \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\cos\left(\arctan\left(-\frac{\sqrt{2}}{3}\right)\right) = \frac{3\sqrt{11}}{11}\right) & .2 = \left(\sec\left(\arcsin\left(\frac{\sqrt{3}}{5}\right)\right) = \frac{5\sqrt{22}}{22}\right) & .3 = \left(\cos\left(\arcsin\left(\frac{-3}{4}\right)\right) = \frac{\sqrt{7}}{4}\right) \\ .4 = \left(\cot\left(\arccos\left(\frac{-4}{5}\right)\right) = \frac{-4}{3}\right) & .5 = \left(\sin\left(\arctan\left(\frac{-1}{4}\right)\right) = -\frac{\sqrt{17}}{17}\right) & .6 = \left(\tan\left(\arccos\left(\frac{\sqrt{7}}{9}\right)\right) = \frac{\sqrt{7}\sqrt{74}}{7}\right) \\ .7 = \left(\sin\left(\arccos\left(\frac{4}{7}\right)\right) = \frac{\sqrt{33}}{7}\right) & .8 = \left(\tan\left(\arcsin\left(\frac{3}{5}\right)\right) = \frac{3}{4}\right) & .9 = \left(\csc\left(\arctan\left(\frac{5}{7}\right)\right) = \frac{\sqrt{74}}{5}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{5}{9}\right) + \arcsin\left(\frac{-5}{9}\right)\right) = \frac{31}{81}\right) & .2 = \left(\cos\left(\arccos\left(\frac{2}{7}\right) + \arcsin\left(\frac{1}{5}\right)\right) = \frac{4\sqrt{6}}{35} - \frac{3\sqrt{5}}{35}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{2}{3}\right)\right) = \frac{4\sqrt{5}}{9}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{4}{9}\right)\right) = \frac{49}{81}\right) \\ .5 = \left(\arctan\left(\cos(2\pi) + \sin\left(-\frac{5\pi}{2}\right)\right) = 0\right) & .6 = \left(\csc\left(\arccos\left(\sin\left(\frac{7\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{7\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 2\alpha^2 - 1, \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

TrigonometryExercise5 Answers for No.645128

$$Ans1 = \begin{bmatrix} .1 = (\text{arcCos}(1) = 0) & .2 = (\text{arcTan}(0) = 0) & .3 = \left(\text{arcTan}\left(-\frac{\sqrt{3}}{3}\right) = -\frac{\pi}{6}\right) \\ .4 = (\text{arcSin}(0) = 0) & .5 = \left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}\right) & .6 = \left(\text{arcCos}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) \\ .7 = \left(\text{arcSin}\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) & .8 = (\text{arcSin}(7) = undefined) & .9 = \left(\text{arcSin}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\cos\left(\text{arcCos}\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) & .2 = \left(\text{Sin}(\text{arcTan}(-\sqrt{3})) = -\frac{\sqrt{3}}{2}\right) & .3 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{1}{2}\right) \\ .4 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) & .5 = \left(\text{arcTan}\left(\text{Tan}\left(-\frac{\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .6 = \left(\text{arcCos}\left(\text{Sin}\left(-\frac{\pi}{3}\right)\right) = \frac{5\pi}{6}\right) \\ .7 = \left(\text{arcSin}\left(\text{Sin}\left(\frac{13\pi}{6}\right)\right) = \frac{\pi}{6}\right) & .8 = \left(\text{arcCos}\left(\text{Cos}\left(-\frac{2\pi}{3}\right)\right) = \frac{2\pi}{3}\right) & .9 = \left(\text{arcTan}\left(\text{Tan}\left(\frac{17\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\text{Cot}\left(\text{arcSin}\left(\frac{1}{2}\right)\right) = \sqrt{3}\right) & .11 = \left(\text{Sec}\left(\text{arcCos}\left(\text{Sin}\left(\frac{11\pi}{6}\right)\right)\right) = -2\right) & .12 = \left(\text{ArcCos}\left(\text{Sin}\left(\text{ArcCos}\left(\frac{\sqrt{2}}{2}\right)\right)\right) = \frac{\pi}{4}\right) \end{bmatrix}, , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{3}{5}\right)\right) = \frac{4}{5}\right) & .2 = \left(\text{Sin}\left(\text{arcTan}\left(\frac{3}{5}\right)\right) = \frac{3\sqrt{34}}{34}\right) & .3 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{\sqrt{5}}{6}\right)\right) = \frac{\sqrt{31}\sqrt{5}}{5}\right) \\ .4 = \left(\text{Cot}\left(\text{arcCos}\left(\frac{-3}{8}\right)\right) = -\frac{3\sqrt{55}}{55}\right) & .5 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{\sqrt{2}}{7}\right)\right) = \frac{\sqrt{47}}{7}\right) & .6 = \left(\text{Tan}\left(\text{arcSin}\left(\frac{2}{3}\right)\right) = \frac{2\sqrt{5}}{5}\right) \\ .7 = \left(\text{Sec}\left(\text{arcSin}\left(\frac{-3}{5}\right)\right) = \frac{5}{4}\right) & .8 = \left(\text{Csc}\left(\text{arcTan}\left(\frac{\sqrt{7}}{5}\right)\right) = \frac{4\sqrt{7}\sqrt{2}}{7}\right) & .9 = \left(\text{Cos}\left(\text{arcTan}\left(\frac{-1}{2}\right)\right) = \frac{2\sqrt{5}}{5}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{1}{2}\right) + \text{arcSin}\left(\frac{-3}{7}\right)\right) = \frac{\sqrt{3}\sqrt{10}}{7} - \frac{3}{14}\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{1}{3}\right) + \text{arcSin}\left(\frac{4}{7}\right)\right) = \frac{\sqrt{33}}{21} - \frac{8\sqrt{2}}{21}\right) \\ .3 = \left(\text{Sin}\left(2\,\text{arcCos}\left(\frac{4}{5}\right)\right) = \frac{24}{25}\right) & .4 = \left(\cos\left(2\,\text{arcCos}\left(\frac{4}{9}\right)\right) = \frac{-49}{81}\right) \\ .5 = \left(\text{arcTan}(\text{Cos}(3\pi) + \text{Sin}(-3\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\text{Csc}\left(\text{arcCos}\left(\text{Sin}\left(-\frac{17\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(\frac{5\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\,\alpha^2, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645129

$$Ans1 = \begin{bmatrix} .1 = \left(\text{arcSin}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{3}\right) & .2 = \left(\text{arcSin}(1) = \frac{\pi}{2}\right) & .3 = (\text{arcSin}(7) = undefined) \\ .4 = (\text{arcTan}(0) = 0) & .5 = \left(\text{arcTan}(\sqrt{3}) = \frac{\pi}{3}\right) & .6 = \left(\text{arcCos}\left(\frac{\sqrt{2}}{2}\right) = \frac{\pi}{4}\right) \\ .7 = (\text{arcCos}(-1) = \pi) & .8 = \left(\text{arcCos}\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) & .9 = \left(\text{arcSin}\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans2 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcSin}\left(\frac{-1}{2}\right)\right) = \frac{-1}{2}\right) & .2 = \left(\text{Sin}(\text{arcTan}(-1)) = -\frac{\sqrt{2}}{2}\right) & .3 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{1}{2}\right)\right) = \sqrt{3}\right) \\ .4 = \left(\text{Cos}(\text{arcTan}(1)) = \frac{\sqrt{2}}{2}\right) & .5 = \left(\text{arcTan}\left(\text{Tan}\left(\frac{\pi}{4}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\text{arcCos}\left(\text{Sin}\left(-\frac{\pi}{6}\right)\right) = \frac{2\pi}{3}\right) \\ .7 = \left(\text{arcSin}\left(\text{Sin}\left(\frac{11\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\text{arcCos}\left(\text{Cos}\left(\frac{11\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\text{arcTan}\left(\text{Tan}\left(-\frac{7\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\text{Cot}\left(\text{arcCos}\left(-\frac{\sqrt{2}}{2}\right)\right) = -1\right) & .11 = \left(\text{Tan}\left(\text{arcCos}\left(\text{Sin}\left(\frac{17\pi}{6}\right)\right)\right) = \sqrt{3}\right) & .12 = \left(\text{ArcSin}\left(\text{Cos}\left(\text{ArcSin}\left(\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{6}\right) \end{bmatrix}, , \begin{bmatrix} :) \\ :(\\ \begin{bmatrix}\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}\end{bmatrix} \\ :) \\ :(\end{bmatrix}$$

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{-3}{7}\right)\right) = \frac{2\sqrt{10}}{7}\right) & .2 = \left(\text{Tan}\left(\text{arcSin}\left(-\frac{\sqrt{5}}{6}\right)\right) = -\frac{\sqrt{31}\sqrt{5}}{31}\right) & .3 = \left(\text{Sec}\left(\text{arcSin}\left(\frac{1}{3}\right)\right) = \frac{3\sqrt{2}}{4}\right) \\ .4 = \left(\text{Sin}(\text{arcTan}(\sqrt{6})) = \frac{\sqrt{6}\sqrt{7}}{7}\right) & .5 = \left(\text{Csc}\left(\text{arcTan}\left(\frac{-7}{3}\right)\right) = -\frac{\sqrt{58}}{7}\right) & .6 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{-4}{5}\right)\right) = \frac{-3}{4}\right) \\ .7 = \left(\text{Cos}(\text{arcTan}(5)) = \frac{\sqrt{26}}{26}\right) & .8 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{2}{5}\right)\right) = \frac{\sqrt{21}}{5}\right) & .9 = \left(\text{Cot}\left(\text{arcCos}\left(\frac{\sqrt{3}}{4}\right)\right) = \frac{\sqrt{13}\sqrt{3}}{13}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{3}{7}\right) + \text{arcSin}\left(\frac{-1}{6}\right)\right) = \frac{\sqrt{10}\sqrt{35}}{21} - \frac{1}{14}\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{1}{2}\right) + \text{arcSin}\left(\frac{1}{3}\right)\right) = \frac{\sqrt{2}}{3} - \frac{\sqrt{3}}{6}\right) \\ .3 = \left(\text{Sin}\left(2\,\text{arcCos}\left(\frac{3}{8}\right)\right) = \frac{3\sqrt{55}}{32}\right) & .4 = \left(\cos\left(2\,\text{arcCos}\left(\frac{1}{5}\right)\right) = \frac{-23}{25}\right) \\ .5 = \left(\text{arcTan}\left(\text{Cos}(\pi) + \text{Sin}\left(-\frac{3\pi}{2}\right)\right) = 0\right) & .6 = \left(\text{Sec}\left(\text{arcCos}\left(\text{Sin}\left(-\frac{11\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(\frac{4\pi}{3}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans5 = 2\,\alpha\sqrt{1-\alpha^2}, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

$$Ans6 = 1 - 2\,\alpha^2, \ , \begin{bmatrix} M \\ U \\ T \end{bmatrix}$$

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TrigonometryExercise5 Answers for No.645130

$$Ans1 = \left[\begin{array}{ccc} .1 = \left(\text{arcSin}\left(-\frac{\sqrt{3}}{2}\right) = -\frac{\pi}{3}\right) & .2 = \left(\text{arcCos}\left(\frac{\sqrt{3}}{2}\right) = \frac{\pi}{6}\right) & .3 = \left(\text{arcCos}(0) = \frac{\pi}{2}\right) \\ .4 = \left(\text{arcCos}\left(\frac{-1}{2}\right) = \frac{2\pi}{3}\right) & .5 = (\text{arcTan}(0) = 0) & .6 = (\text{arcCos}(-3) = \mathit{undefined}) \\ .7 = \left(\text{arcSin}\left(\frac{1}{2}\right) = \frac{\pi}{6}\right) & .8 = \left(\text{arcTan}(\sqrt{3}) = \frac{\pi}{3}\right) & .9 = \left(\text{arcSin}(1) = \frac{\pi}{2}\right) \end{array}\right], , \left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]$$

$$Ans2 = \left[\begin{array}{ccc} .1 = \left(\text{Sin}\left(\text{arcSin}\left(-\frac{\sqrt{2}}{2}\right)\right) = -\frac{\sqrt{2}}{2}\right) & .2 = \left(\text{Sin}\left(\text{arcTan}\left(\frac{\sqrt{3}}{3}\right)\right) = \frac{1}{2}\right) & .3 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{1}{2}\right)\right) = \sqrt{3}\right) \\ .4 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{1}{2}\right) & .5 = \left(\text{arcSin}\left(\text{Sin}\left(-\frac{\pi}{3}\right)\right) = -\frac{\pi}{3}\right) & .6 = \left(\text{arcSin}\left(\text{Cos}\left(\frac{\pi}{3}\right)\right) = \frac{\pi}{6}\right) \\ .7 = \left(\text{arcSin}\left(\text{Sin}\left(-\frac{13\pi}{6}\right)\right) = -\frac{\pi}{6}\right) & .8 = \left(\text{arcCos}\left(\text{Cos}\left(\frac{11\pi}{3}\right)\right) = \frac{\pi}{3}\right) & .9 = \left(\text{arcTan}\left(\text{Tan}\left(\frac{5\pi}{6}\right)\right) = -\frac{\pi}{6}\right) \\ .10 = \left(\text{Sec}\left(\text{arcCos}\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{2\sqrt{3}}{3}\right) & .11 = \left(\text{Csc}\left(\text{arcCos}\left(\text{Sin}\left(-\frac{11\pi}{6}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) & .12 = \left(\text{ArcCos}\left(\text{Sin}\left(\text{ArcCos}\left(-\frac{\sqrt{3}}{2}\right)\right)\right) = \frac{\pi}{3}\right) \end{array}\right], , \left[\begin{array}{c} :) \\ :(\\ \left[\left[\left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]\right]\right] \\ :) \\ :(\end{array}\right]$$

$$Ans3 = \left[\begin{array}{ccc} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .2 = \left(\text{Cos}\left(\text{arcTan}\left(\frac{\sqrt{5}}{2}\right)\right) = \frac{2}{3}\right) & .3 = \left(\text{Cot}\left(\text{arcCos}\left(\frac{\sqrt{5}}{8}\right)\right) = \frac{\sqrt{59}\sqrt{5}}{59}\right) \\ .4 = \left(\text{Tan}\left(\text{arcSin}\left(\frac{\sqrt{3}}{4}\right)\right) = \frac{\sqrt{13}\sqrt{3}}{13}\right) & .5 = \left(\text{Sec}\left(\text{arcTan}\left(\frac{5}{2}\right)\right) = \frac{\sqrt{29}}{2}\right) & .6 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{-3}{5}\right)\right) = \frac{-4}{3}\right) \\ .7 = \left(\text{Sin}\left(\text{arcTan}\left(\frac{-1}{4}\right)\right) = -\frac{\sqrt{17}}{17}\right) & .8 = \left(\text{Csc}\left(\text{arcSin}\left(\frac{-5}{7}\right)\right) = \frac{-7}{5}\right) & .9 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{4}\right) \end{array}\right], , \left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]$$

$$Ans4 = \left[\begin{array}{cc} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{2}{5}\right) + \text{arcSin}\left(\frac{4}{7}\right)\right) = \frac{\sqrt{21}\sqrt{33}}{35} + \frac{8}{35}\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{1}{2}\right) + \text{arcSin}\left(\frac{-4}{7}\right)\right) = \frac{2\sqrt{3}}{7} + \frac{\sqrt{33}}{14}\right) \\ .3 = \left(\text{Sin}\left(2\,\text{arcSin}\left(\frac{3}{5}\right)\right) = \frac{24}{25}\right) & .4 = \left(\cos\left(2\,\text{arcCos}\left(\frac{4}{7}\right)\right) = \frac{-17}{49}\right) \\ .5 = \left(\text{arcTan}(\text{Cos}(3\pi) + \text{Sin}(4\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\text{Cot}\left(\text{arcCos}\left(\text{Sin}\left(\frac{5\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(\frac{10\pi}{3}\right)\right)\right) = \sqrt{3}\right) \end{array}\right], , \left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]$$

$$Ans5 = 2\alpha\sqrt{1-\alpha^2}, \quad , \left[\begin{array}{c} M \\ U \\ T \end{array}\right]$$

$$Ans6 = 1 - 2\alpha^2, \quad , \left[\begin{array}{c} M \\ U \\ T \end{array}\right]$$

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