TrigonometryExercise5 Answers for No.9594

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Tan}\left(\arccos\left(\frac{\sqrt{5}}{9}\right)\right) = \frac{2\sqrt{19}\sqrt{5}}{5}\right) & .2 = \left(\mathrm{Sin}\left(\arctan\left(\frac{6}{7}\right)\right) = \frac{6\sqrt{85}}{85}\right) & .3 = \left(\mathrm{Csc}\left(\arccos\left(\frac{-4}{9}\right)\right) = \frac{9\sqrt{65}}{65}\right) \\ .4 = \left(\mathrm{Cos}\left(\arcsin\left(-\frac{\sqrt{2}}{7}\right)\right) = \frac{\sqrt{47}}{7}\right) & .5 = \left(\mathrm{Cot}\left(\arcsin\left(\frac{-2}{7}\right)\right) = -\frac{3\sqrt{5}}{2}\right) & .6 = \left(\mathrm{Cos}(\arctan(-\sqrt{6})) = \frac{\sqrt{7}}{7}\right) \\ .7 = \left(\mathrm{Tan}\left(\arcsin\left(\frac{2}{5}\right)\right) = \frac{2\sqrt{21}}{21}\right) & .8 = \left(\mathrm{Sec}\left(\arctan\left(\frac{-2}{3}\right)\right) = \frac{\sqrt{13}}{3}\right) & .9 = \left(\mathrm{Sin}\left(\arccos\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arccos\left(\frac{1}{6}\right) + \arcsin\left(\frac{2}{3}\right)\right) = \frac{\sqrt{35}\sqrt{5}}{18} + \frac{1}{9}\right) & .2 = \left(\mathrm{Cos}\left(\arccos\left(\frac{3}{7}\right) + \arcsin\left(\frac{-1}{3}\right)\right) = \frac{2\sqrt{2}}{7} + \frac{2\sqrt{10}}{21}\right) \\ .3 = \left(\mathrm{Sin}\left(2\arccos\left(\frac{4}{7}\right)\right) = \frac{8\sqrt{33}}{49}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{4}{7}\right)\right) = \frac{-17}{49}\right) \\ .5 = \left(\arctan(\mathrm{Cos}(2\pi) + \mathrm{Sin}(-3\pi)) = \frac{\pi}{4}\right) & .6 = \left(\mathrm{Cot}\left(\arccos\left(\mathrm{Sin}\left(-\frac{17\pi}{6}\right)\right) + \arcsin\left(\mathrm{Cos}\left(-\frac{\pi}{3}\right)\right)\right) = -\sqrt{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00002XX

TrigonometryExercise5 Answers for No.9608

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Tan}\left(\arccos\left(\frac{-2}{7}\right)\right) = -\frac{3\sqrt{5}}{2}\right) & .2 = \left(\mathrm{Sin}\left(\arccos\left(-\frac{\sqrt{3}}{5}\right)\right) = \frac{\sqrt{22}}{5}\right) & .3 = \left(\mathrm{Cos}\left(\arcsin\left(\frac{-1}{3}\right)\right) = \frac{2\sqrt{2}}{3}\right) \\ .4 = \left(\mathrm{Sin}\left(\arctan\left(\frac{1}{4}\right)\right) = \frac{\sqrt{17}}{17}\right) & .5 = (\mathrm{Sec}(\arctan(-\sqrt{2})) = \sqrt{3}) & .6 = \left(\mathrm{Cos}(\arctan(-5)) = \frac{\sqrt{26}}{26}\right) \\ .7 = \left(\mathrm{Tan}\left(\arcsin\left(\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{15}\right) & .8 = \left(\mathrm{Csc}\left(\arccos\left(\frac{4}{5}\right)\right) = \frac{5}{3}\right) & .9 = \left(\mathrm{Cot}\left(\arcsin\left(\frac{\sqrt{3}}{7}\right)\right) = \frac{\sqrt{46}\sqrt{3}}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arccos\left(\frac{1}{4}\right) + \arcsin\left(\frac{4}{9}\right)\right) = \frac{\sqrt{15}\sqrt{65}}{36} + \frac{1}{9}\right) & .2 = \left(\mathrm{Cos}\left(\arccos\left(\frac{2}{3}\right) + \arcsin\left(\frac{-4}{5}\right)\right) = \frac{4\sqrt{5}}{15} + \frac{2}{5}\right) \\ .3 = \left(\mathrm{Sin}\left(2\arcsin\left(\frac{5}{7}\right)\right) = \frac{20\sqrt{6}}{49}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{1}{2}\right)\right) = \frac{-1}{2}\right) \\ .5 = \left(\arctan(\mathrm{Cos}(2\pi) + \mathrm{Sin}(5\pi)) = \frac{\pi}{4}\right) & .6 = \left(\mathrm{Csc}\left(\arccos\left(\mathrm{Sin}\left(-\frac{11\pi}{6}\right)\right) + \arcsin\left(\mathrm{Cos}\left(\frac{10\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

TrigonometryExercise5 Answers for No.9646

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\tan\left(\arcsin\left(\frac{\sqrt{5}}{9}\right)\right) = \frac{\sqrt{19}\sqrt{5}}{38}\right) & .2 = \left(\cos\left(\arcsin\left(\frac{5}{6}\right)\right) = \frac{\sqrt{11}}{6}\right) & .3 = \left(\cot(\arctan(7)) = \frac{1}{7}\right) \\ .4 = \left(\sin(\arctan(-\sqrt{3})) = -\frac{\sqrt{3}}{2}\right) & .5 = \left(\tan\left(\arccos\left(\frac{-3}{8}\right)\right) = -\frac{\sqrt{55}}{3}\right) & .6 = \left(\cos\left(\arctan\left(\frac{-1}{5}\right)\right) = \frac{5\sqrt{26}}{26}\right) \\ .7 = \left(\sin\left(\arccos\left(\frac{\sqrt{3}}{7}\right)\right) = \frac{\sqrt{46}}{7}\right) & .8 = \left(\sec\left(\arccos\left(\frac{3}{5}\right)\right) = \frac{5}{3}\right) & .9 = \left(\csc\left(\arcsin\left(\frac{-5}{9}\right)\right) = \frac{-9}{5}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{1}{5}\right)\right) = \frac{\sqrt{6}\sqrt{3}}{5} + \frac{1}{10}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{4}\right) + \arcsin\left(\frac{-3}{4}\right)\right) = \frac{\sqrt{7}}{16} + \frac{3\sqrt{15}}{16}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{4}{9}\right)\right) = \frac{8\sqrt{65}}{81}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{1}{6}\right)\right) = \frac{17}{18}\right) \\ .5 = \left(\arctan\left(\cos(2\pi) + \sin\left(-\frac{9\pi}{2}\right)\right) = 0\right) & .6 = \left(\sec\left(\arccos\left(\sin\left(\frac{7\pi}{6}\right)\right) + \arcsin\left(\cos\left(-\frac{\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00004XX
TrigonometryExercise5 Answers for No.9649

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\tan\left(\arccos\left(\frac{\sqrt{3}}{8}\right)\right) = \frac{\sqrt{61}\sqrt{3}}{3}\right) & .2 = \left(\cot\left(\arcsin\left(\frac{3}{8}\right)\right) = \frac{\sqrt{55}}{3}\right) & .3 = \left(\cos(\arctan(\sqrt{7})) = \frac{\sqrt{2}}{4}\right) \\ .4 = \left(\csc\left(\arccos\left(\frac{1}{6}\right)\right) = \frac{6\sqrt{35}}{35}\right) & .5 = \left(\sin\left(\arccos\left(\frac{-5}{6}\right)\right) = \frac{\sqrt{11}}{6}\right) & .6 = \left(\tan\left(\arcsin\left(\frac{-3}{5}\right)\right) = \frac{-3}{4}\right) \\ .7 = \left(\sec\left(\arctan\left(\frac{3}{4}\right)\right) = \frac{5}{4}\right) & .8 = \left(\cos\left(\arcsin\left(-\frac{\sqrt{3}}{7}\right)\right) = \frac{\sqrt{46}}{7}\right) & .9 = \left(\sin(\arctan(-3)) = -\frac{3\sqrt{10}}{10}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{3}{8}\right) + \arcsin\left(\frac{-1}{4}\right)\right) = \frac{\sqrt{55}\sqrt{15}}{32} - \frac{3}{32}\right) & .2 = \left(\cos\left(\arccos\left(\frac{5}{9}\right) + \arcsin\left(\frac{5}{9}\right)\right) = 0\right) \\ .3 = \left(\sin\left(2\arcsin\left(\frac{3}{4}\right)\right) = \frac{3\sqrt{7}}{8}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{5}{9}\right)\right) = \frac{31}{81}\right) \\ .5 = \left(\arctan(\cos(\pi) + \sin(3\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\sec\left(\arccos\left(\sin\left(-\frac{13\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{13\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

TrigonometryExercise5 Answers for No.9669

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\tan\left(\arccos\left(-\frac{\sqrt{3}}{7}\right)\right) = -\frac{\sqrt{46}\sqrt{3}}{3}\right) & .2 = \left(\cos\left(\arcsin\left(\frac{-2}{3}\right)\right) = \frac{\sqrt{5}}{3}\right) & .3 = \left(\sin\left(\arctan\left(-\frac{\sqrt{5}}{2}\right)\right) = -\frac{\sqrt{5}}{3}\right) \\ .4 = \left(\sin\left(\arccos\left(\frac{-1}{3}\right)\right) = \frac{2\sqrt{2}}{3}\right) & .5 = \left(\cos\left(\arctan\left(\frac{5}{6}\right)\right) = \frac{6\sqrt{61}}{61}\right) & .6 = \left(\cot\left(\arccos\left(\frac{3}{5}\right)\right) = \frac{3}{4}\right) \\ .7 = \left(\csc\left(\arcsin\left(\frac{\sqrt{5}}{6}\right)\right) = \frac{6\sqrt{5}}{5}\right) & .8 = (\sec(\arctan(-7)) = 5\sqrt{2}) & .9 = \left(\tan\left(\arcsin\left(\frac{2}{5}\right)\right) = \frac{2\sqrt{21}}{21}\right) \end{bmatrix}, , [M\ a\ t\ h\ @\ M\ U\ T]$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{2}{3}\right) + \arcsin\left(\frac{3}{5}\right)\right) = \frac{4\sqrt{5}}{15} + \frac{2}{5}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{3}\right) + \arcsin\left(\frac{-4}{7}\right)\right) = \frac{\sqrt{33}}{21} + \frac{8\sqrt{2}}{21}\right) \\ .3 = \left(\sin\left(2\arcsin\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{3}{7}\right)\right) = \frac{-31}{49}\right) \\ .5 = \left(\arctan\left(\cos(5\pi) + \sin\left(-\frac{3\pi}{2}\right)\right) = 0\right) & .6 = \left(\sec\left(\arccos\left(\sin\left(\frac{17\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{10\pi}{3}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, , [M\ a\ t\ h\ @\ M\ U\ T]$$

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

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

TrigonometryExercise5 Answers for No.9717

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\csc\left(\arccos\left(\frac{-3}{5}\right)\right) = \frac{5}{4}\right) & .2 = \left(\sec\left(\arctan\left(\frac{5}{3}\right)\right) = \frac{\sqrt{34}}{3}\right) & .3 = \left(\sin\left(\arctan\left(\frac{\sqrt{2}}{3}\right)\right) = \frac{\sqrt{2}\sqrt{11}}{11}\right) \\ .4 = \left(\tan\left(\arcsin\left(\frac{1}{6}\right)\right) = \frac{\sqrt{35}}{35}\right) & .5 = \left(\cos\left(\arctan\left(\frac{-1}{7}\right)\right) = \frac{7\sqrt{2}}{10}\right) & .6 = \left(\cos\left(\arcsin\left(\frac{\sqrt{5}}{7}\right)\right) = \frac{2\sqrt{11}}{7}\right) \\ .7 = \left(\tan\left(\arccos\left(\frac{\sqrt{5}}{7}\right)\right) = \frac{2\sqrt{11}\sqrt{5}}{5}\right) & .8 = \left(\sin\left(\arccos\left(\frac{5}{9}\right)\right) = \frac{2\sqrt{14}}{9}\right) & .9 = \left(\cot\left(\arcsin\left(\frac{-4}{5}\right)\right) = \frac{-3}{4}\right) \end{bmatrix}, , [M\ a\ t\ h\ @\ M\ U\ T]$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{5}{7}\right) + \arcsin\left(\frac{-1}{6}\right)\right) = \frac{\sqrt{6}\sqrt{35}}{21} - \frac{5}{42}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{3}\right) + \arcsin\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{6} - \frac{\sqrt{2}}{3}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{3}{4}\right)\right) = \frac{-1}{8}\right) \\ .5 = \left(\arctan(\cos(4\pi) + \sin(\pi)) = \frac{\pi}{4}\right) & .6 = \left(\cot\left(\arccos\left(\sin\left(-\frac{7\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{8\pi}{3}\right)\right)\right) = \sqrt{3}\right) \end{bmatrix}, , [M\ a\ t\ h\ @\ M\ U\ T]$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00007XX
TrigonometryExercise5 Answers for No.9763

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Cot}\left(\text{arcCos}\left(\frac{4}{7}\right)\right) = \frac{4\sqrt{33}}{33}\right) & .2 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{-1}{5}\right)\right) = -2\sqrt{6}\right) & .3 = \left(\text{Sec}\left(\text{arcSin}\left(\frac{-1}{5}\right)\right) = \frac{5\sqrt{6}}{12}\right) \\ .4 = \left(\text{Tan}\left(\text{arcSin}\left(\frac{\sqrt{5}}{9}\right)\right) = \frac{\sqrt{19}\sqrt{5}}{38}\right) & .5 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{\sqrt{5}}{7}\right)\right) = \frac{2\sqrt{11}}{7}\right) & .6 = \left(\text{Sin}\left(\text{arcTan}\left(\frac{-2}{5}\right)\right) = -\frac{2\sqrt{29}}{29}\right) \\ .7 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .8 = \left(\text{Csc}\left(\text{arcTan}\left(\frac{\sqrt{7}}{2}\right)\right) = \frac{\sqrt{11}\sqrt{7}}{7}\right) & .9 = \left(\text{Cos}(\text{arcTan}(6)) = \frac{\sqrt{37}}{37}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{1}{2}\right) + \text{arcSin}\left(\frac{1}{2}\right)\right) = 1\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{1}{2}\right) + \text{arcSin}\left(\frac{-5}{9}\right)\right) = \frac{\sqrt{14}}{9} + \frac{5\sqrt{3}}{18}\right) \\ .3 = \left(\text{Sin}\left(2\,\text{arcCos}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .4 = \left(\cos\left(2\,\text{arcCos}\left(\frac{5}{9}\right)\right) = \frac{-31}{81}\right) \\ .5 = \left(\text{arcTan}\left(\text{Cos}(5\pi) + \text{Sin}\left(\frac{21\pi}{2}\right)\right) = 0\right) & .6 = \left(\text{Csc}\left(\text{arcCos}\left(\text{Sin}\left(-\frac{7\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(\frac{8\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00008XX
TrigonometryExercise5 Answers for No.9877

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{-3}{8}\right)\right) = -\frac{\sqrt{55}}{3}\right) & .2 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{1}{3}\right)\right) = \frac{2\sqrt{2}}{3}\right) & .3 = \left(\text{Tan}\left(\text{arcSin}\left(\frac{-2}{5}\right)\right) = -\frac{2\sqrt{21}}{21}\right) \\ .4 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{\sqrt{2}}{7}\right)\right) = \frac{\sqrt{47}}{7}\right) & .5 = \left(\text{Cos}\left(\text{arcTan}\left(\frac{3}{7}\right)\right) = \frac{7\sqrt{58}}{58}\right) & .6 = \left(\text{Sec}\left(\text{arcCos}\left(\frac{4}{9}\right)\right) = \frac{9}{4}\right) \\ .7 = \left(\text{Csc}\left(\text{arcSin}\left(\frac{\sqrt{5}}{9}\right)\right) = \frac{9\sqrt{5}}{5}\right) & .8 = \left(\text{Cot}\left(\text{arcTan}\left(\frac{\sqrt{7}}{3}\right)\right) = \frac{3\sqrt{7}}{7}\right) & .9 = \left(\text{Sin}(\text{arcTan}(-2)) = -\frac{2\sqrt{5}}{5}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{1}{2}\right) + \text{arcSin}\left(\frac{1}{2}\right)\right) = 1\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{5}{6}\right) + \text{arcSin}\left(\frac{-4}{5}\right)\right) = \frac{1}{2} + \frac{2\sqrt{11}}{15}\right) \\ .3 = \left(\text{Sin}\left(2\,\text{arcSin}\left(\frac{3}{7}\right)\right) = \frac{12\sqrt{10}}{49}\right) & .4 = \left(\cos\left(2\,\text{arcSin}\left(\frac{5}{8}\right)\right) = \frac{7}{32}\right) \\ .5 = \left(\text{arcTan}\left(\text{Cos}\left(\frac{7\pi}{2}\right) + \text{Sin}\left(-\frac{11\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\text{Sec}\left(\text{arcCos}\left(\text{Sin}\left(-\frac{7\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(-\frac{2\pi}{3}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

TrigonometryExercise5 Answers for No.9911

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Tan}\left(\arcsin\left(\frac{-5}{8}\right)\right) = -\frac{5\sqrt{39}}{39}\right) & .2 = \left(\mathrm{Cos}\left(\arcsin\left(\frac{2}{7}\right)\right) = \frac{3\sqrt{5}}{7}\right) & .3 = \left(\mathrm{Sin}\left(\arctan\left(\frac{-4}{3}\right)\right) = \frac{-4}{5}\right) \\ .4 = \left(\mathrm{Csc}\left(\arcsin\left(-\frac{\sqrt{5}}{8}\right)\right) = -\frac{8\sqrt{5}}{5}\right) & .5 = \left(\mathrm{Tan}\left(\arccos\left(\frac{-5}{9}\right)\right) = -\frac{2\sqrt{14}}{5}\right) & .6 = \left(\mathrm{Cot}(\arctan(\sqrt{5})) = \frac{\sqrt{5}}{5}\right) \\ .7 = \left(\mathrm{Sin}\left(\arccos\left(\frac{5}{6}\right)\right) = \frac{\sqrt{11}}{6}\right) & .8 = \left(\mathrm{Cos}\left(\arctan\left(\frac{1}{6}\right)\right) = \frac{6\sqrt{37}}{37}\right) & .9 = \left(\mathrm{Sec}\left(\arccos\left(\frac{\sqrt{2}}{7}\right)\right) = \frac{7\sqrt{2}}{2}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00010XX
TrigonometryExercise5 Answers for No.10027

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Tan}\left(\arcsin\left(\frac{3}{7}\right)\right) = \frac{3\sqrt{10}}{20}\right) & .2 = \left(\mathrm{Sec}\left(\arcsin\left(-\frac{\sqrt{3}}{5}\right)\right) = \frac{5\sqrt{22}}{22}\right) & .3 = \left(\mathrm{Cot}(\arctan(-3)) = \frac{-1}{3}\right) \\ .4 = \left(\mathrm{Cos}\left(\arctan\left(-\frac{\sqrt{3}}{2}\right)\right) = \frac{2\sqrt{7}}{7}\right) & .5 = \left(\mathrm{Sin}\left(\arccos\left(\frac{\sqrt{5}}{9}\right)\right) = \frac{2\sqrt{19}}{9}\right) & .6 = \left(\mathrm{Cos}\left(\arcsin\left(\frac{-4}{9}\right)\right) = \frac{\sqrt{65}}{9}\right) \\ .7 = \left(\mathrm{Sin}\left(\arctan\left(\frac{1}{6}\right)\right) = \frac{\sqrt{37}}{37}\right) & .8 = \left(\mathrm{Tan}\left(\arccos\left(\frac{3}{5}\right)\right) = \frac{4}{3}\right) & .9 = \left(\mathrm{Csc}\left(\arccos\left(\frac{-3}{4}\right)\right) = \frac{4\sqrt{7}}{7}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arccos\left(\frac{2}{5}\right) + \arcsin\left(\frac{1}{2}\right)\right) = \frac{\sqrt{21}\sqrt{3}}{10} + \frac{1}{5}\right) & .2 = \left(\mathrm{Cos}\left(\arccos\left(\frac{1}{6}\right) + \arcsin\left(\frac{-1}{3}\right)\right) = \frac{\sqrt{2}}{9} + \frac{\sqrt{35}}{18}\right) \\ .3 = \left(\mathrm{Sin}\left(2\arccos\left(\frac{2}{3}\right)\right) = \frac{4\sqrt{5}}{9}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{5}{6}\right)\right) = \frac{7}{18}\right) \\ .5 = \left(\arctan\left(\mathrm{Cos}(4\pi) + \mathrm{Sin}\left(\frac{15\pi}{2}\right)\right) = 0\right) & .6 = \left(\mathrm{Cot}\left(\arccos\left(\mathrm{Sin}\left(\frac{11\pi}{6}\right)\right) + \arcsin\left(\mathrm{Cos}\left(-\frac{\pi}{3}\right)\right)\right) = -\sqrt{3}\right) \end{bmatrix}, \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

TrigonometryExercise5 Answers for No.10063

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\cot\left(\arccos\left(\frac{-4}{5}\right)\right) = \frac{-4}{3}\right) & .2 = \left(\csc\left(\arcsin\left(\frac{4}{7}\right)\right) = \frac{7}{4}\right) & .3 = \left(\sin\left(\arctan\left(\frac{\sqrt{5}}{4}\right)\right) = \frac{\sqrt{5}\sqrt{21}}{21}\right) \\ .4 = \left(\tan\left(\arccos\left(-\frac{\sqrt{5}}{9}\right)\right) = -\frac{2\sqrt{19}\sqrt{5}}{5}\right) & .5 = (\sec(\arctan(-6)) = \sqrt{37}) & .6 = \left(\sin\left(\arccos\left(\frac{1}{5}\right)\right) = \frac{2\sqrt{6}}{5}\right) \\ .7 = \left(\cos(\arctan(2)) = \frac{\sqrt{5}}{5}\right) & .8 = \left(\cos\left(\arcsin\left(\frac{\sqrt{3}}{7}\right)\right) = \frac{\sqrt{46}}{7}\right) & .9 = \left(\tan\left(\arcsin\left(\frac{-3}{5}\right)\right) = \frac{-3}{4}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{5}{9}\right) + \arcsin\left(\frac{3}{5}\right)\right) = \frac{8\sqrt{14}}{45} + \frac{1}{3}\right) & .2 = \left(\cos\left(\arccos\left(\frac{2}{3}\right) + \arcsin\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{3} + \frac{\sqrt{5}}{6}\right) \\ .3 = \left(\sin\left(2\arcsin\left(\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{8}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{2}{3}\right)\right) = \frac{1}{9}\right) \\ .5 = \left(\arctan(\cos(5\pi) + \sin(-3\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\sec\left(\arccos\left(\sin\left(-\frac{5\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{13\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00012XX

TrigonometryExercise5 Answers for No.10120

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\cot\left(\arcsin\left(-\frac{\sqrt{2}}{5}\right)\right) = -\frac{\sqrt{23}\sqrt{2}}{2}\right) & .2 = \left(\sec\left(\arccos\left(\frac{-2}{3}\right)\right) = \frac{-3}{2}\right) & .3 = \left(\sin\left(\arccos\left(\frac{4}{9}\right)\right) = \frac{\sqrt{65}}{9}\right) \\ .4 = \left(\tan\left(\arcsin\left(\frac{4}{5}\right)\right) = \frac{4}{3}\right) & .5 = \left(\cos\left(\arctan\left(\frac{\sqrt{2}}{5}\right)\right) = \frac{5\sqrt{3}}{9}\right) & .6 = \left(\sin\left(\arctan\left(\frac{5}{4}\right)\right) = \frac{5\sqrt{41}}{41}\right) \\ .7 = \left(\csc\left(\arctan\left(\frac{-4}{3}\right)\right) = \frac{-5}{4}\right) & .8 = \left(\cos\left(\arcsin\left(\frac{-5}{6}\right)\right) = \frac{\sqrt{11}}{6}\right) & .9 = \left(\tan\left(\arccos\left(-\frac{\sqrt{3}}{8}\right)\right) = -\frac{\sqrt{61}\sqrt{3}}{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{-3}{7}\right)\right) = \frac{\sqrt{3}\sqrt{10}}{7} - \frac{3}{14}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{3}{4}\right)\right) = \frac{\sqrt{7}}{8} - \frac{3\sqrt{3}}{8}\right) \\ .3 = \left(\sin\left(2\arcsin\left(\frac{1}{5}\right)\right) = \frac{4\sqrt{6}}{25}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{1}{4}\right)\right) = \frac{-7}{8}\right) \\ .5 = \left(\arctan\left(\cos\left(\frac{7\pi}{2}\right) + \sin\left(\frac{\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\sec\left(\arccos\left(\sin\left(\frac{17\pi}{6}\right)\right) + \arcsin\left(\cos\left(-\frac{\pi}{6}\right)\right)\right) = -2\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

TrigonometryExercise5 Answers for No.10367

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Cos}\left(\text{arcTan}\left(\frac{7}{2}\right)\right) = \frac{2\sqrt{53}}{53}\right) & .2 = \left(\text{Cot}(\text{arcTan}(\sqrt{5})) = \frac{\sqrt{5}}{5}\right) & .3 = \left(\text{Sec}\left(\text{arcSin}\left(\frac{-3}{5}\right)\right) = \frac{5}{4}\right) \\ .4 = \left(\text{Tan}\left(\text{arcSin}\left(\frac{\sqrt{3}}{4}\right)\right) = \frac{\sqrt{3}\sqrt{13}}{13}\right) & .5 = \left(\text{Csc}\left(\text{arcCos}\left(\frac{5}{8}\right)\right) = \frac{8\sqrt{39}}{39}\right) & .6 = \left(\text{Sin}(\text{arcTan}(-1)) = -\frac{\sqrt{2}}{2}\right) \\ .7 = \left(\text{Tan}\left(\text{arcCos}\left(\frac{-5}{9}\right)\right) = -\frac{2\sqrt{14}}{5}\right) & .8 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{3}{8}\right)\right) = \frac{\sqrt{55}}{8}\right) & .9 = \left(\text{Sin}\left(\text{arcCos}\left(-\frac{\sqrt{7}}{11}\right)\right) = \frac{\sqrt{114}}{11}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{1}{6}\right) + \text{arcSin}\left(\frac{-3}{5}\right)\right) = \frac{2\sqrt{35}}{15} - \frac{1}{10}\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{4}{5}\right) + \text{arcSin}\left(\frac{1}{2}\right)\right) = \frac{2\sqrt{3}}{5} - \frac{3}{10}\right) \\ .3 = \left(\text{Sin}\left(2\ \text{arcSin}\left(\frac{4}{5}\right)\right) = \frac{24}{25}\right) & .4 = \left(\text{cos}\left(2\ \text{arcSin}\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) \\ .5 = \left(\text{arcTan}\left(\text{Cos}(3\pi) + \text{Sin}\left(\frac{9\pi}{2}\right)\right) = 0\right) & .6 = \left(\text{Sec}\left(\text{arcCos}\left(\text{Sin}\left(-\frac{7\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(-\frac{\pi}{6}\right)\right)\right) = -2\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00014XX

TrigonometryExercise5 Answers for No.10372

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\text{Cos}\left(\text{arcTan}\left(\frac{7}{5}\right)\right) = \frac{5\sqrt{74}}{74}\right) & .2 = \left(\text{Cot}\left(\text{arcTan}\left(\frac{-1}{7}\right)\right) = -7\right) & .3 = \left(\text{Sin}\left(\text{arcTan}\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}\sqrt{7}}{7}\right) \\ .4 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{-5}{6}\right)\right) = \frac{\sqrt{11}}{6}\right) & .5 = \left(\text{Cos}\left(\text{arcSin}\left(\frac{3}{7}\right)\right) = \frac{2\sqrt{10}}{7}\right) & .6 = \left(\text{Sec}\left(\text{arcCos}\left(\frac{5}{7}\right)\right) = \frac{7}{5}\right) \\ .7 = \left(\text{Csc}\left(\text{arcSin}\left(\frac{-1}{2}\right)\right) = -2\right) & .8 = \left(\text{Tan}\left(\text{arcCos}\left(-\frac{\sqrt{7}}{10}\right)\right) = -\frac{\sqrt{93}\sqrt{7}}{7}\right) & .9 = \left(\text{Tan}\left(\text{arcSin}\left(\frac{\sqrt{7}}{12}\right)\right) = \frac{\sqrt{7}\sqrt{137}}{137}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\text{Sin}\left(\text{arcCos}\left(\frac{5}{6}\right) + \text{arcSin}\left(\frac{-5}{7}\right)\right) = \frac{\sqrt{11}\sqrt{6}}{21} - \frac{25}{42}\right) & .2 = \left(\text{Cos}\left(\text{arcCos}\left(\frac{3}{7}\right) + \text{arcSin}\left(\frac{1}{2}\right)\right) = \frac{3\sqrt{3}}{14} - \frac{\sqrt{10}}{7}\right) \\ .3 = \left(\text{Sin}\left(2\ \text{arcCos}\left(\frac{1}{3}\right)\right) = \frac{4\sqrt{2}}{9}\right) & .4 = \left(\text{cos}\left(2\ \text{arcCos}\left(\frac{3}{5}\right)\right) = \frac{-7}{25}\right) \\ .5 = \left(\text{arcTan}(\text{Cos}(4\pi) + \text{Sin}(-3\pi)) = \frac{\pi}{4}\right) & .6 = \left(\text{Sec}\left(\text{arcCos}\left(\text{Sin}\left(\frac{7\pi}{6}\right)\right) + \text{arcSin}\left(\text{Cos}\left(-\frac{5\pi}{6}\right)\right)\right) = 2\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00015XX
TrigonometryExercise5 Answers for No.10375

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\operatorname{Sec}\left(\arcsin\left(\frac{\sqrt{2}}{7}\right)\right) = \frac{7\sqrt{47}}{47}\right) & .2 = \left(\operatorname{Tan}\left(\arcsin\left(\frac{5}{9}\right)\right) = \frac{5\sqrt{14}}{28}\right) & .3 = \left(\operatorname{Cot}\left(\arccos\left(\frac{2}{7}\right)\right) = \frac{2\sqrt{5}}{15}\right) \\ .4 = \left(\operatorname{Cos}\left(\arcsin\left(\frac{-3}{8}\right)\right) = \frac{\sqrt{55}}{8}\right) & .5 = \left(\operatorname{Sin}\left(\arccos\left(\frac{\sqrt{2}}{3}\right)\right) = \frac{\sqrt{7}}{3}\right) & .6 = \left(\operatorname{Csc}\left(\arctan\left(\frac{4}{5}\right)\right) = \frac{\sqrt{41}}{4}\right) \\ .7 = \left(\operatorname{Cos}\left(\arctan\left(-\frac{\sqrt{7}}{5}\right)\right) = \frac{5\sqrt{2}}{8}\right) & .8 = \left(\operatorname{Sin}\left(\arctan\left(\frac{-4}{7}\right)\right) = -\frac{4\sqrt{65}}{65}\right) & .9 = \left(\operatorname{Tan}\left(\arccos\left(\frac{-4}{7}\right)\right) = -\frac{\sqrt{33}}{4}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\operatorname{Sin}\left(\arccos\left(\frac{1}{4}\right) + \arcsin\left(\frac{2}{3}\right)\right) = \frac{\sqrt{15}\sqrt{5}}{12} + \frac{1}{6}\right) & .2 = \left(\operatorname{Cos}\left(\arccos\left(\frac{3}{5}\right) + \arcsin\left(\frac{-3}{4}\right)\right) = \frac{3\sqrt{7}}{20} + \frac{3}{5}\right) \\ .3 = \left(\operatorname{Sin}\left(2 \arcsin\left(\frac{4}{9}\right)\right) = \frac{8\sqrt{65}}{81}\right) & .4 = \left(\cos\left(2 \arccos\left(\frac{2}{3}\right)\right) = \frac{-1}{9}\right) \\ .5 = \left(\arctan\left(\operatorname{Cos}\left(\frac{5\pi}{2}\right) + \operatorname{Sin}\left(\frac{9\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\operatorname{Sec}\left(\arccos\left(\operatorname{Sin}\left(\frac{7\pi}{6}\right)\right) + \arcsin\left(\operatorname{Cos}\left(\frac{13\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00016XX
TrigonometryExercise5 Answers for No.10426

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\operatorname{Sin}\left(\arccos\left(\frac{5}{6}\right)\right) = \frac{\sqrt{11}}{6}\right) & .2 = \left(\operatorname{Cos}\left(\arctan\left(\frac{5}{2}\right)\right) = \frac{2\sqrt{29}}{29}\right) & .3 = \left(\operatorname{Cos}\left(\arcsin\left(\frac{3}{7}\right)\right) = \frac{2\sqrt{10}}{7}\right) \\ .4 = \left(\operatorname{Csc}\left(\arctan\left(-\frac{\sqrt{3}}{5}\right)\right) = -\frac{2\sqrt{3}\sqrt{7}}{3}\right) & .5 = \left(\operatorname{Sec}\left(\arcsin\left(\frac{-3}{8}\right)\right) = \frac{8\sqrt{55}}{55}\right) & .6 = \left(\operatorname{Sin}\left(\arctan\left(\frac{-3}{4}\right)\right) = \frac{-3}{5}\right) \\ .7 = \left(\operatorname{Tan}\left(\arcsin\left(\frac{\sqrt{2}}{3}\right)\right) = \frac{\sqrt{2}\sqrt{7}}{7}\right) & .8 = \left(\operatorname{Cot}\left(\arccos\left(\frac{\sqrt{7}}{8}\right)\right) = \frac{\sqrt{7}\sqrt{57}}{57}\right) & .9 = \left(\operatorname{Tan}\left(\arccos\left(\frac{-1}{5}\right)\right) = -2\sqrt{6}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\operatorname{Sin}\left(\arccos\left(\frac{5}{9}\right) + \arcsin\left(\frac{-5}{9}\right)\right) = \frac{31}{81}\right) & .2 = \left(\operatorname{Cos}\left(\arccos\left(\frac{1}{4}\right) + \arcsin\left(\frac{4}{5}\right)\right) = \frac{3}{20} - \frac{\sqrt{15}}{5}\right) \\ .3 = \left(\operatorname{Sin}\left(2 \arccos\left(\frac{4}{5}\right)\right) = \frac{24}{25}\right) & .4 = \left(\cos\left(2 \arcsin\left(\frac{5}{7}\right)\right) = \frac{-1}{49}\right) \\ .5 = \left(\arctan\left(\operatorname{Cos}(4\pi) + \operatorname{Sin}\left(\frac{7\pi}{2}\right)\right) = 0\right) & .6 = \left(\operatorname{Sec}\left(\arccos\left(\operatorname{Sin}\left(\frac{5\pi}{6}\right)\right) + \arcsin\left(\operatorname{Cos}\left(\frac{8\pi}{3}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00017XX
TrigonometryExercise5 Answers for No.10628

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\operatorname{Csc}\left(\operatorname{arcSin}\left(\frac{\sqrt{2}}{3}\right)\right) = \frac{3\sqrt{2}}{2}\right) & .2 = \left(\operatorname{Tan}\left(\operatorname{arcCos}\left(\frac{-4}{7}\right)\right) = -\frac{\sqrt{33}}{4}\right) & .3 = \left(\operatorname{Sin}\left(\operatorname{arcCos}\left(\frac{3}{7}\right)\right) = \frac{2\sqrt{10}}{7}\right) \\ .4 = \left(\operatorname{Sin}\left(\operatorname{arcTan}\left(\frac{-2}{7}\right)\right) = -\frac{2\sqrt{53}}{53}\right) & .5 = \left(\operatorname{Sec}\left(\operatorname{arcCos}\left(\frac{\sqrt{5}}{6}\right)\right) = \frac{6\sqrt{5}}{5}\right) & .6 = \left(\operatorname{Cos}\left(\operatorname{arcTan}\left(\frac{7}{6}\right)\right) = \frac{6\sqrt{85}}{85}\right) \\ .7 = \left(\operatorname{Cos}\left(\operatorname{arcSin}\left(\frac{-5}{6}\right)\right) = \frac{\sqrt{11}}{6}\right) & .8 = \left(\operatorname{Tan}\left(\operatorname{arcSin}\left(\frac{2}{3}\right)\right) = \frac{2\sqrt{5}}{5}\right) & .9 = \left(\operatorname{Cot}(\operatorname{arcTan}(-\sqrt{7})) = -\frac{\sqrt{7}}{7}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\operatorname{Sin}\left(\operatorname{arcCos}\left(\frac{3}{5}\right) + \operatorname{arcSin}\left(\frac{1}{2}\right)\right) = \frac{2\sqrt{3}}{5} + \frac{3}{10}\right) & .2 = \left(\operatorname{Cos}\left(\operatorname{arcCos}\left(\frac{4}{5}\right) + \operatorname{arcSin}\left(\frac{-1}{2}\right)\right) = \frac{2\sqrt{3}}{5} + \frac{3}{10}\right) \\ .3 = \left(\operatorname{Sin}\left(2\operatorname{arcSin}\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) & .4 = \left(\cos\left(2\operatorname{arcCos}\left(\frac{5}{9}\right)\right) = \frac{-31}{81}\right) \\ .5 = \left(\operatorname{arcTan}\left(\operatorname{Cos}\left(\frac{5\pi}{2}\right) + \operatorname{Sin}\left(\frac{3\pi}{2}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\operatorname{Sec}\left(\operatorname{arcCos}\left(\operatorname{Sin}\left(\frac{7\pi}{6}\right)\right) + \operatorname{arcSin}\left(\operatorname{Cos}\left(\frac{13\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00018XX
TrigonometryExercise5 Answers for No.11408

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\operatorname{Tan}\left(\operatorname{arcSin}\left(\frac{5}{6}\right)\right) = \frac{5\sqrt{11}}{11}\right) & .2 = \left(\operatorname{Cos}\left(\operatorname{arcTan}\left(\frac{1}{3}\right)\right) = \frac{3\sqrt{10}}{10}\right) & .3 = \left(\operatorname{Sin}\left(\operatorname{arcCos}\left(\frac{-3}{8}\right)\right) = \frac{\sqrt{55}}{8}\right) \\ .4 = \left(\operatorname{Tan}\left(\operatorname{arcCos}\left(\frac{5}{7}\right)\right) = \frac{2\sqrt{6}}{5}\right) & .5 = \left(\operatorname{Cos}\left(\operatorname{arcSin}\left(-\frac{\sqrt{5}}{6}\right)\right) = \frac{\sqrt{31}}{6}\right) & .6 = \left(\operatorname{Csc}\left(\operatorname{arcTan}\left(-\frac{\sqrt{3}}{2}\right)\right) = -\frac{\sqrt{3}\sqrt{7}}{3}\right) \\ .7 = \left(\operatorname{Sec}\left(\operatorname{arcCos}\left(-\frac{\sqrt{5}}{8}\right)\right) = -\frac{8\sqrt{5}}{5}\right) & .8 = \left(\operatorname{Sin}\left(\operatorname{arcTan}\left(\frac{-1}{7}\right)\right) = -\frac{\sqrt{2}}{10}\right) & .9 = \left(\operatorname{Cot}\left(\operatorname{arcSin}\left(\frac{-3}{4}\right)\right) = -\frac{\sqrt{7}}{3}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\operatorname{Sin}\left(\operatorname{arcCos}\left(\frac{1}{2}\right) + \operatorname{arcSin}\left(\frac{-5}{7}\right)\right) = \frac{\sqrt{6}\sqrt{3}}{7} - \frac{5}{14}\right) & .2 = \left(\operatorname{Cos}\left(\operatorname{arcCos}\left(\frac{1}{2}\right) + \operatorname{arcSin}\left(\frac{1}{5}\right)\right) = \frac{\sqrt{6}}{5} - \frac{\sqrt{3}}{10}\right) \\ .3 = \left(\operatorname{Sin}\left(2\operatorname{arcSin}\left(\frac{3}{7}\right)\right) = \frac{12\sqrt{10}}{49}\right) & .4 = \left(\cos\left(2\operatorname{arcSin}\left(\frac{1}{6}\right)\right) = \frac{17}{18}\right) \\ .5 = \left(\operatorname{arcTan}\left(\operatorname{Cos}\left(\frac{7\pi}{2}\right) + \operatorname{Sin}\left(-\frac{11\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\operatorname{Cot}\left(\operatorname{arcCos}\left(\operatorname{Sin}\left(-\frac{11\pi}{6}\right)\right) + \operatorname{arcSin}\left(\operatorname{Cos}\left(\frac{8\pi}{3}\right)\right)\right) = \sqrt{3}\right) \end{bmatrix}, \; , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00019XX
TrigonometryExercise5 Answers for No.11560

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Cos}\left(\arctan\left(\frac{-3}{7}\right)\right) = \frac{7\sqrt{58}}{58}\right) & .2 = \left(\mathrm{Sec}\left(\arctan\left(\frac{5}{4}\right)\right) = \frac{\sqrt{41}}{4}\right) & .3 = \left(\mathrm{Tan}\left(\arcsin\left(\frac{-2}{5}\right)\right) = -\frac{2\sqrt{21}}{21}\right) \\ .4 = \left(\mathrm{Cot}\left(\arcsin\left(\frac{\sqrt{3}}{5}\right)\right) = \frac{\sqrt{22}\sqrt{3}}{3}\right) & .5 = \left(\mathrm{Csc}\left(\arccos\left(\frac{-5}{7}\right)\right) = \frac{7\sqrt{6}}{12}\right) & .6 = \left(\mathrm{Tan}\left(\arccos\left(\frac{4}{9}\right)\right) = \frac{\sqrt{65}}{4}\right) \\ .7 = \left(\mathrm{Sin}\left(\arctan\left(\frac{\sqrt{7}}{2}\right)\right) = \frac{\sqrt{11}\sqrt{7}}{11}\right) & .8 = \left(\mathrm{Cos}\left(\arcsin\left(\frac{3}{5}\right)\right) = \frac{4}{5}\right) & .9 = \left(\mathrm{Sin}\left(\arccos\left(-\frac{\sqrt{2}}{7}\right)\right) = \frac{\sqrt{47}}{7}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arccos\left(\frac{3}{5}\right) + \arcsin\left(\frac{1}{3}\right)\right) = \frac{8\sqrt{2}}{15} + \frac{1}{5}\right) & .2 = \left(\mathrm{Cos}\left(\arccos\left(\frac{2}{5}\right) + \arcsin\left(\frac{-1}{3}\right)\right) = \frac{4\sqrt{2}}{15} + \frac{\sqrt{21}}{15}\right) \\ .3 = \left(\mathrm{Sin}\left(2\arccos\left(\frac{1}{5}\right)\right) = \frac{4\sqrt{6}}{25}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{5}{6}\right)\right) = \frac{-7}{18}\right) \\ .5 = \left(\arctan\left(\mathrm{Cos}(10\pi) + \mathrm{Sin}\left(-\frac{\pi}{2}\right)\right) = 0\right) & .6 = \left(\mathrm{Sec}\left(\arccos\left(\mathrm{Sin}\left(-\frac{7\pi}{6}\right)\right) + \arcsin\left(\mathrm{Cos}\left(\frac{10\pi}{3}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00020XX
TrigonometryExercise5 Answers for No.11806

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Cos}\left(\arctan\left(-\frac{\sqrt{3}}{4}\right)\right) = \frac{4\sqrt{19}}{19}\right) & .2 = \left(\mathrm{Cot}\left(\arctan\left(\frac{-1}{3}\right)\right) = -3\right) & .3 = \left(\mathrm{Cos}\left(\arcsin\left(\frac{4}{5}\right)\right) = \frac{3}{5}\right) \\ .4 = \left(\mathrm{Tan}\left(\arcsin\left(-\frac{\sqrt{5}}{6}\right)\right) = -\frac{\sqrt{5}\sqrt{31}}{31}\right) & .5 = \left(\mathrm{Tan}\left(\arccos\left(\frac{\sqrt{6}}{7}\right)\right) = \frac{\sqrt{43}\sqrt{6}}{6}\right) & .6 = \left(\mathrm{Sin}\left(\arccos\left(\frac{4}{7}\right)\right) = \frac{\sqrt{33}}{7}\right) \\ .7 = \left(\mathrm{Csc}\left(\arcsin\left(\frac{-3}{7}\right)\right) = \frac{-7}{3}\right) & .8 = \left(\mathrm{Sin}\left(\arctan\left(\frac{6}{7}\right)\right) = \frac{6\sqrt{85}}{85}\right) & .9 = \left(\mathrm{Sec}\left(\arccos\left(\frac{-5}{6}\right)\right) = \frac{-6}{5}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arccos\left(\frac{2}{3}\right) + \arcsin\left(\frac{-1}{3}\right)\right) = \frac{2\sqrt{5}\sqrt{2}}{9} - \frac{2}{9}\right) & .2 = \left(\mathrm{Cos}\left(\arccos\left(\frac{1}{5}\right) + \arcsin\left(\frac{5}{8}\right)\right) = \frac{\sqrt{39}}{40} - \frac{\sqrt{6}}{4}\right) \\ .3 = \left(\mathrm{Sin}\left(2\arccos\left(\frac{1}{3}\right)\right) = \frac{4\sqrt{2}}{9}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{1}{2}\right)\right) = \frac{-1}{2}\right) \\ .5 = \left(\arctan\left(\mathrm{Cos}(8\pi) + \mathrm{Sin}\left(\frac{19\pi}{2}\right)\right) = 0\right) & .6 = \left(\mathrm{Cot}\left(\arccos\left(\mathrm{Sin}\left(\frac{11\pi}{6}\right)\right) + \arcsin\left(\mathrm{Cos}\left(\frac{11\pi}{3}\right)\right)\right) = -\sqrt{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

TrigonometryExercise5 Answers for No.12219

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

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

$$Ans3 = \left[\begin{array}{ccc} .1 = \left(\mathrm{Cos}(\mathrm{arcTan}(-3)) = \frac{\sqrt{10}}{10}\right) & .2 = \left(\mathrm{Csc}\left(\mathrm{arcTan}\left(\frac{\sqrt{3}}{2}\right)\right) = \frac{\sqrt{3}\sqrt{7}}{3}\right) & .3 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{-1}{6}\right)\right) = \frac{\sqrt{35}}{6}\right) \\ .4 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{8}\right)\right) = \frac{\sqrt{61}\sqrt{3}}{61}\right) & .5 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{-5}{8}\right)\right) = -\frac{\sqrt{39}}{5}\right) & .6 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{5}{2}\right)\right) = \frac{5\sqrt{29}}{29}\right) \\ .7 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{\sqrt{7}}{11}\right)\right) = \frac{\sqrt{114}}{11}\right) & .8 = \left(\mathrm{Sec}\left(\mathrm{arcSin}\left(\frac{2}{3}\right)\right) = \frac{3\sqrt{5}}{5}\right) & .9 = \left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\frac{1}{3}\right)\right) = \frac{\sqrt{2}}{4}\right) \end{array}\right], \left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]$$

$$Ans4 = \left[\begin{array}{cc} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{5}{9}\right) + \mathrm{arcSin}\left(\frac{3}{5}\right)\right) = \frac{8\sqrt{14}}{45} + \frac{1}{3}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{1}{3}\right) + \mathrm{arcSin}\left(\frac{-3}{5}\right)\right) = \frac{4}{15} + \frac{2\sqrt{2}}{5}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcCos}\left(\frac{5}{7}\right)\right) = \frac{20\sqrt{6}}{49}\right) & .4 = \left(\cos\left(2\,\mathrm{arcSin}\left(\frac{1}{2}\right)\right) = \frac{1}{2}\right) \\ .5 = \left(\mathrm{arcTan}\left(\mathrm{Cos}\left(\frac{7\pi}{2}\right) + \mathrm{Sin}\left(\frac{7\pi}{2}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\mathrm{Sec}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{11\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(-\frac{5\pi}{6}\right)\right)\right) = 2\right) \end{array}\right], \left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00022XX
TrigonometryExercise5 Answers for No.12954

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

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

$$Ans3 = \left[\begin{array}{ccc} .1 = \left(\mathrm{Sec}\left(\mathrm{arcSin}\left(\frac{-5}{6}\right)\right) = \frac{6\sqrt{11}}{11}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{\sqrt{3}}{5}\right)\right) = \frac{\sqrt{22}}{5}\right) & .3 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{-4}{9}\right)\right) = -\frac{\sqrt{65}}{4}\right) \\ .4 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{1}{3}\right)\right) = \frac{\sqrt{2}}{4}\right) & .5 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(-\frac{\sqrt{3}}{5}\right)\right) = \frac{5\sqrt{22}}{22}\right) & .6 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{-5}{3}\right)\right) = -\frac{5\sqrt{34}}{34}\right) \\ .7 = \left(\mathrm{Cot}\left(\mathrm{arcTan}\left(\frac{\sqrt{7}}{6}\right)\right) = \frac{6\sqrt{7}}{7}\right) & .8 = \left(\mathrm{Cos}\left(\mathrm{arcTan}\left(\frac{1}{3}\right)\right) = \frac{3\sqrt{10}}{10}\right) & .9 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{5}{6}\right)\right) = \frac{\sqrt{11}}{6}\right) \end{array}\right], \left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]$$

$$Ans4 = \left[\begin{array}{cc} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{2}{3}\right) + \mathrm{arcSin}\left(\frac{5}{6}\right)\right) = \frac{\sqrt{11}\sqrt{5}}{18} + \frac{5}{9}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{3}{7}\right) + \mathrm{arcSin}\left(\frac{-2}{3}\right)\right) = \frac{\sqrt{5}}{7} + \frac{4\sqrt{10}}{21}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcCos}\left(\frac{2}{5}\right)\right) = \frac{4\sqrt{21}}{25}\right) & .4 = \left(\cos\left(2\,\mathrm{arcCos}\left(\frac{3}{4}\right)\right) = \frac{1}{8}\right) \\ .5 = \left(\mathrm{arcTan}\left(\mathrm{Cos}\left(\frac{3\pi}{2}\right) + \mathrm{Sin}\left(\frac{9\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{13\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{5\pi}{3}\right)\right)\right) = 2\right) \end{array}\right], \left[\begin{array}{c} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{array}\right]$$

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

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

TrigonometryExercise5 Answers for No.12964

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

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

$$Ans3 = \left[\begin{matrix} .1 = \left(\cos\left(\arctan\left(\frac{-5}{3}\right)\right) = \frac{3\sqrt{34}}{34}\right) & .2 = \left(\csc(\arctan(-\sqrt{5})) = -\frac{\sqrt{6}\sqrt{5}}{5}\right) & .3 = \left(\sec\left(\arccos\left(-\frac{\sqrt{5}}{8}\right)\right) = -\frac{8\sqrt{5}}{5}\right) \\ .4 = \left(\sin\left(\arccos\left(\frac{-4}{7}\right)\right) = \frac{\sqrt{33}}{7}\right) & .5 = \left(\cot\left(\arcsin\left(\frac{-4}{5}\right)\right) = \frac{-3}{4}\right) & .6 = \left(\tan\left(\arccos\left(\frac{3}{4}\right)\right) = \frac{\sqrt{7}}{3}\right) \\ .7 = \left(\sin\left(\arctan\left(\frac{2}{3}\right)\right) = \frac{2\sqrt{13}}{13}\right) & .8 = \left(\cos\left(\arcsin\left(\frac{3}{5}\right)\right) = \frac{4}{5}\right) & .9 = \left(\tan\left(\arcsin\left(-\frac{\sqrt{6}}{11}\right)\right) = -\frac{\sqrt{6}\sqrt{115}}{115}\right) \end{matrix}\right], , \left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]$$

$$Ans4 = \left[\begin{matrix} .1 = \left(\sin\left(\arccos\left(\frac{1}{5}\right) + \arcsin\left(\frac{-1}{3}\right)\right) = \frac{4\sqrt{6}\sqrt{2}}{15} - \frac{1}{15}\right) & .2 = \left(\cos\left(\arccos\left(\frac{3}{4}\right) + \arcsin\left(\frac{1}{3}\right)\right) = \frac{\sqrt{2}}{2} - \frac{\sqrt{7}}{12}\right) \\ .3 = \left(\sin\left(2\arcsin\left(\frac{4}{5}\right)\right) = \frac{24}{25}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{3}{5}\right)\right) = \frac{7}{25}\right) \\ .5 = \left(\arctan\left(\cos\left(\frac{7\pi}{2}\right) + \sin\left(\frac{9\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\sec\left(\arccos\left(\sin\left(-\frac{13\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{11\pi}{3}\right)\right)\right) = -\frac{2\sqrt{3}}{3}\right) \end{matrix}\right], , \left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00024XX
TrigonometryExercise5 Answers for No.12971

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

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

$$Ans3 = \left[\begin{matrix} .1 = \left(\sin\left(\arccos\left(\frac{-1}{3}\right)\right) = \frac{2\sqrt{2}}{3}\right) & .2 = \left(\cos\left(\arctan\left(\frac{7}{2}\right)\right) = \frac{2\sqrt{53}}{53}\right) & .3 = \left(\cos\left(\arcsin\left(-\frac{\sqrt{5}}{7}\right)\right) = \frac{2\sqrt{11}}{7}\right) \\ .4 = \left(\sin\left(\arctan\left(\frac{-4}{7}\right)\right) = -\frac{4\sqrt{65}}{65}\right) & .5 = \left(\csc\left(\arcsin\left(\frac{5}{6}\right)\right) = \frac{6}{5}\right) & .6 = \left(\sec\left(\arctan\left(\frac{\sqrt{7}}{3}\right)\right) = \frac{4}{3}\right) \\ .7 = \left(\tan\left(\arccos\left(\frac{5}{9}\right)\right) = \frac{2\sqrt{14}}{5}\right) & .8 = \left(\tan\left(\arcsin\left(\frac{-3}{4}\right)\right) = -\frac{3\sqrt{7}}{7}\right) & .9 = \left(\cot\left(\arccos\left(-\frac{\sqrt{5}}{7}\right)\right) = -\frac{\sqrt{11}\sqrt{5}}{22}\right) \end{matrix}\right], , \left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]$$

$$Ans4 = \left[\begin{matrix} .1 = \left(\sin\left(\arccos\left(\frac{1}{3}\right) + \arcsin\left(\frac{3}{4}\right)\right) = \frac{\sqrt{2}\sqrt{7}}{6} + \frac{1}{4}\right) & .2 = \left(\cos\left(\arccos\left(\frac{3}{5}\right) + \arcsin\left(\frac{-1}{3}\right)\right) = \frac{4}{15} + \frac{2\sqrt{2}}{5}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{2}{3}\right)\right) = \frac{4\sqrt{5}}{9}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{4}{9}\right)\right) = \frac{49}{81}\right) \\ .5 = \left(\arctan\left(\cos\left(\frac{3\pi}{2}\right) + \sin\left(\frac{7\pi}{2}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\cot\left(\arccos\left(\sin\left(-\frac{13\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{5\pi}{3}\right)\right)\right) = -\sqrt{3}\right) \end{matrix}\right], , \left[\begin{matrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{matrix}\right]$$

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

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

TrigonometryExercise5 Answers for No.13023

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\csc\left(\arcsin\left(\frac{3}{5}\right)\right) = \frac{5}{3}\right) & .2 = \left(\tan\left(\arcsin\left(\frac{-3}{5}\right)\right) = \frac{-3}{4}\right) & .3 = \left(\sec\left(\arctan\left(\frac{5}{6}\right)\right) = \frac{\sqrt{61}}{6}\right) \\ .4 = \left(\tan\left(\arccos\left(-\frac{\sqrt{2}}{5}\right)\right) = -\frac{\sqrt{23}\sqrt{2}}{2}\right) & .5 = \left(\sin\left(\arccos\left(\frac{-1}{4}\right)\right) = \frac{\sqrt{15}}{4}\right) & .6 = \left(\cos\left(\arcsin\left(\frac{\sqrt{3}}{7}\right)\right) = \frac{\sqrt{46}}{7}\right) \\ .7 = \left(\cot\left(\arccos\left(\frac{4}{5}\right)\right) = \frac{4}{3}\right) & .8 = \left(\sin\left(\arctan\left(-\frac{\sqrt{3}}{5}\right)\right) = -\frac{\sqrt{3}\sqrt{7}}{14}\right) & .9 = \left(\cos\left(\arctan\left(\frac{-6}{7}\right)\right) = \frac{7\sqrt{85}}{85}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{3}{5}\right) + \arcsin\left(\frac{2}{3}\right)\right) = \frac{4\sqrt{5}}{15} + \frac{2}{5}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{-1}{6}\right)\right) = \frac{\sqrt{35}}{12} + \frac{\sqrt{3}}{12}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{2}{3}\right)\right) = \frac{4\sqrt{5}}{9}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{3}{8}\right)\right) = \frac{23}{32}\right) \\ .5 = \left(\arctan(\cos(2\pi) + \sin(-3\pi)) = \frac{\pi}{4}\right) & .6 = \left(\cot\left(\arccos\left(\sin\left(\frac{17\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{8\pi}{3}\right)\right)\right) = \sqrt{3}\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00026XX
TrigonometryExercise5 Answers for No.13033

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\cot\left(\arctan\left(\frac{-1}{3}\right)\right) = -3\right) & .2 = \left(\sin\left(\arctan\left(-\frac{\sqrt{5}}{7}\right)\right) = -\frac{\sqrt{6}\sqrt{5}}{18}\right) & .3 = \left(\csc\left(\arcsin\left(-\frac{\sqrt{5}}{8}\right)\right) = -\frac{8\sqrt{5}}{5}\right) \\ .4 = \left(\tan\left(\arccos\left(\frac{-2}{5}\right)\right) = -\frac{\sqrt{21}}{2}\right) & .5 = \left(\tan\left(\arcsin\left(\frac{3}{4}\right)\right) = \frac{3\sqrt{7}}{7}\right) & .6 = \left(\sin\left(\arccos\left(\frac{\sqrt{3}}{5}\right)\right) = \frac{\sqrt{22}}{5}\right) \\ .7 = \left(\cos\left(\arcsin\left(\frac{-1}{6}\right)\right) = \frac{\sqrt{35}}{6}\right) & .8 = \left(\cos\left(\arctan\left(\frac{1}{7}\right)\right) = \frac{7\sqrt{2}}{10}\right) & .9 = \left(\sec\left(\arccos\left(\frac{1}{2}\right)\right) = 2\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\sin\left(\arccos\left(\frac{5}{7}\right) + \arcsin\left(\frac{1}{2}\right)\right) = \frac{\sqrt{6}\sqrt{3}}{7} + \frac{5}{14}\right) & .2 = \left(\cos\left(\arccos\left(\frac{1}{2}\right) + \arcsin\left(\frac{-1}{2}\right)\right) = \frac{\sqrt{3}}{2}\right) \\ .3 = \left(\sin\left(2\arccos\left(\frac{4}{5}\right)\right) = \frac{24}{25}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{1}{5}\right)\right) = \frac{23}{25}\right) \\ .5 = \left(\arctan\left(\cos\left(\frac{7\pi}{2}\right) + \sin\left(\frac{3\pi}{2}\right)\right) = -\frac{\pi}{4}\right) & .6 = \left(\csc\left(\arccos\left(\sin\left(-\frac{17\pi}{6}\right)\right) + \arcsin\left(\cos\left(\frac{7\pi}{3}\right)\right)\right) = 2\right) \end{bmatrix}, \ , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

TrigonometryExercise5 Answers for No.13197

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{3}{5}\right)\right) = \frac{4}{3}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{-5}{8}\right)\right) = \frac{\sqrt{39}}{8}\right) & .3 = \left(\mathrm{Cos}\left(\mathrm{arcTan}\left(-\frac{\sqrt{3}}{2}\right)\right) = \frac{2\sqrt{7}}{7}\right) \\ .4 = \left(\mathrm{Sec}\left(\mathrm{arcCos}\left(\frac{-4}{7}\right)\right) = \frac{-7}{4}\right) & .5 = \left(\mathrm{Cot}\left(\mathrm{arcTan}\left(\frac{-1}{2}\right)\right) = -2\right) & .6 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{4}{7}\right)\right) = \frac{4\sqrt{33}}{33}\right) \\ .7 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(\frac{4}{3}\right)\right) = \frac{4}{5}\right) & .8 = \left(\mathrm{Csc}\left(\mathrm{arcSin}\left(\frac{\sqrt{2}}{7}\right)\right) = \frac{7\sqrt{2}}{2}\right) & .9 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(-\frac{\sqrt{5}}{8}\right)\right) = \frac{\sqrt{59}}{8}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{4}{7}\right) + \mathrm{arcSin}\left(\frac{1}{6}\right)\right) = \frac{\sqrt{33}\sqrt{35}}{42} + \frac{2}{21}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{1}{3}\right) + \mathrm{arcSin}\left(\frac{-1}{3}\right)\right) = \frac{4\sqrt{2}}{9}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcCos}\left(\frac{5}{7}\right)\right) = \frac{20\sqrt{6}}{49}\right) & .4 = \left(\cos\left(2\,\mathrm{arcCos}\left(\frac{2}{3}\right)\right) = \frac{-1}{9}\right) \\ .5 = \left(\mathrm{arcTan}(\mathrm{Cos}(2\pi) + \mathrm{Sin}(-4\pi)) = \frac{\pi}{4}\right) & .6 = \left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(\frac{11\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(\frac{11\pi}{3}\right)\right)\right) = -\sqrt{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

TrigonometryExercise5 Answers for No.13907

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Cos}(\mathrm{arcTan}(-5)) = \frac{\sqrt{26}}{26}\right) & .2 = \left(\mathrm{Tan}\left(\mathrm{arcCos}\left(\frac{4}{9}\right)\right) = \frac{\sqrt{65}}{4}\right) & .3 = \left(\mathrm{Cos}\left(\mathrm{arcSin}\left(\frac{1}{3}\right)\right) = \frac{2\sqrt{2}}{3}\right) \\ .4 = \left(\mathrm{Sec}\left(\mathrm{arcSin}\left(\frac{\sqrt{2}}{7}\right)\right) = \frac{7\sqrt{47}}{47}\right) & .5 = (\mathrm{Csc}(\mathrm{arcTan}(1)) = \sqrt{2}) & .6 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{-3}{7}\right)\right) = \frac{2\sqrt{10}}{7}\right) \\ .7 = \left(\mathrm{Sin}\left(\mathrm{arcTan}\left(-\frac{\sqrt{3}}{7}\right)\right) = -\frac{\sqrt{3}\sqrt{13}}{26}\right) & .8 = \left(\mathrm{Tan}\left(\mathrm{arcSin}\left(\frac{-3}{7}\right)\right) = -\frac{3\sqrt{10}}{20}\right) & .9 = \left(\mathrm{Cot}\left(\mathrm{arcCos}\left(\frac{\sqrt{3}}{5}\right)\right) = \frac{\sqrt{22}\sqrt{3}}{22}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\mathrm{arcCos}\left(\frac{3}{7}\right) + \mathrm{arcSin}\left(\frac{2}{3}\right)\right) = \frac{2\sqrt{10}\sqrt{5}}{21} + \frac{2}{7}\right) & .2 = \left(\mathrm{Cos}\left(\mathrm{arcCos}\left(\frac{2}{3}\right) + \mathrm{arcSin}\left(\frac{-4}{5}\right)\right) = \frac{4\sqrt{5}}{15} + \frac{2}{5}\right) \\ .3 = \left(\mathrm{Sin}\left(2\,\mathrm{arcSin}\left(\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{8}\right) & .4 = \left(\cos\left(2\,\mathrm{arcCos}\left(\frac{2}{7}\right)\right) = \frac{-41}{49}\right) \\ .5 = \left(\mathrm{arcTan}\left(\mathrm{Cos}\left(\frac{3\pi}{2}\right) + \mathrm{Sin}\left(-\frac{11\pi}{2}\right)\right) = \frac{\pi}{4}\right) & .6 = \left(\mathrm{Csc}\left(\mathrm{arcCos}\left(\mathrm{Sin}\left(-\frac{11\pi}{6}\right)\right) + \mathrm{arcSin}\left(\mathrm{Cos}\left(-\frac{\pi}{6}\right)\right)\right) = \frac{2\sqrt{3}}{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

TrigonometryExercise5 Answers for No.13991

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arctan\left(-\frac{\sqrt{6}}{5}\right)\right) = -\frac{\sqrt{6}\sqrt{31}}{31}\right) & .2 = \left(\mathrm{Sec}\left(\arccos\left(\frac{-5}{8}\right)\right) = \frac{-8}{5}\right) & .3 = \left(\mathrm{Tan}\left(\arcsin\left(\frac{-3}{7}\right)\right) = -\frac{3\sqrt{10}}{20}\right) \\ .4 = \left(\mathrm{Sin}\left(\arccos\left(\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{4}\right) & .5 = \left(\mathrm{Cos}\left(\arctan\left(\frac{-5}{4}\right)\right) = \frac{4\sqrt{41}}{41}\right) & .6 = \left(\mathrm{Csc}(\arctan(4)) = \frac{\sqrt{17}}{4}\right) \\ .7 = \left(\mathrm{Tan}\left(\arccos\left(\frac{\sqrt{7}}{9}\right)\right) = \frac{\sqrt{74}\sqrt{7}}{7}\right) & .8 = \left(\mathrm{Cos}\left(\arcsin\left(\frac{2}{5}\right)\right) = \frac{\sqrt{21}}{5}\right) & .9 = \left(\mathrm{Cot}\left(\arcsin\left(\frac{\sqrt{3}}{5}\right)\right) = \frac{\sqrt{22}\sqrt{3}}{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00030XX
TrigonometryExercise5 Answers for No.14005

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\mathrm{Tan}\left(\arcsin\left(\frac{\sqrt{6}}{11}\right)\right) = \frac{\sqrt{6}\sqrt{115}}{115}\right) & .2 = \left(\mathrm{Cot}\left(\arccos\left(\frac{1}{2}\right)\right) = \frac{\sqrt{3}}{3}\right) & .3 = \left(\mathrm{Csc}\left(\arctan\left(\frac{4}{5}\right)\right) = \frac{\sqrt{41}}{4}\right) \\ .4 = \left(\mathrm{Sin}\left(\arctan\left(-\frac{\sqrt{5}}{7}\right)\right) = -\frac{\sqrt{6}\sqrt{5}}{18}\right) & .5 = \left(\mathrm{Tan}\left(\arccos\left(\frac{-5}{7}\right)\right) = -\frac{2\sqrt{6}}{5}\right) & .6 = \left(\mathrm{Cos}\left(\arcsin\left(\frac{3}{7}\right)\right) = \frac{2\sqrt{10}}{7}\right) \\ .7 = \left(\mathrm{Cos}\left(\arctan\left(\frac{-5}{3}\right)\right) = \frac{3\sqrt{34}}{34}\right) & .8 = \left(\mathrm{Sec}\left(\arcsin\left(\frac{-2}{3}\right)\right) = \frac{3\sqrt{5}}{5}\right) & .9 = \left(\mathrm{Sin}\left(\arccos\left(-\frac{\sqrt{2}}{7}\right)\right) = \frac{\sqrt{47}}{7}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\mathrm{Sin}\left(\arccos\left(\frac{5}{8}\right) + \arcsin\left(\frac{3}{8}\right)\right) = \frac{\sqrt{39}\sqrt{55}}{64} + \frac{15}{64}\right) & .2 = \left(\mathrm{Cos}\left(\arccos\left(\frac{4}{7}\right) + \arcsin\left(\frac{-3}{7}\right)\right) = \frac{8\sqrt{10}}{49} + \frac{3\sqrt{33}}{49}\right) \\ .3 = \left(\mathrm{Sin}\left(2\arccos\left(\frac{2}{7}\right)\right) = \frac{12\sqrt{5}}{49}\right) & .4 = \left(\cos\left(2\arccos\left(\frac{3}{4}\right)\right) = \frac{1}{8}\right) \\ .5 = \left(\arctan(\mathrm{Cos}(4\pi) + \mathrm{Sin}(-2\pi)) = \frac{\pi}{4}\right) & .6 = \left(\mathrm{Cot}\left(\arccos\left(\mathrm{Sin}\left(\frac{5\pi}{6}\right)\right) + \arcsin\left(\mathrm{Cos}\left(\frac{4\pi}{3}\right)\right)\right) = \sqrt{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600305-00031XX

TrigonometryExercise5 Answers for No.14157

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

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

$$Ans3 = \begin{bmatrix} .1 = \left(\operatorname{Cos}\left(\arcsin\left(\frac{-1}{3}\right)\right) = \frac{2\sqrt{2}}{3}\right) & .2 = \left(\operatorname{Tan}\left(\arcsin\left(-\frac{\sqrt{5}}{9}\right)\right) = -\frac{\sqrt{19}\sqrt{5}}{38}\right) & .3 = \left(\operatorname{Cos}\left(\arctan\left(\frac{-6}{5}\right)\right) = \frac{5\sqrt{61}}{61}\right) \\ .4 = \left(\operatorname{Sin}\left(\arccos\left(\frac{-4}{9}\right)\right) = \frac{\sqrt{65}}{9}\right) & .5 = \left(\operatorname{Csc}\left(\arccos\left(\frac{1}{6}\right)\right) = \frac{6\sqrt{35}}{35}\right) & .6 = \left(\operatorname{Tan}\left(\arccos\left(\frac{\sqrt{2}}{3}\right)\right) = \frac{\sqrt{2}\sqrt{7}}{2}\right) \\ .7 = \left(\operatorname{Sec}\left(\arcsin\left(\frac{1}{3}\right)\right) = \frac{3\sqrt{2}}{4}\right) & .8 = \left(\operatorname{Sin}\left(\arctan\left(\frac{\sqrt{5}}{2}\right)\right) = \frac{\sqrt{5}}{3}\right) & .9 = \left(\operatorname{Cot}\left(\arctan\left(\frac{1}{2}\right)\right) = 2\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

$$Ans4 = \begin{bmatrix} .1 = \left(\operatorname{Sin}\left(\arccos\left(\frac{3}{8}\right) + \arcsin\left(\frac{1}{2}\right)\right) = \frac{\sqrt{55}\sqrt{3}}{16} + \frac{3}{16}\right) & .2 = \left(\operatorname{Cos}\left(\arccos\left(\frac{1}{4}\right) + \arcsin\left(\frac{-1}{6}\right)\right) = \frac{\sqrt{35}}{24} + \frac{\sqrt{15}}{24}\right) \\ .3 = \left(\operatorname{Sin}\left(2\arcsin\left(\frac{3}{4}\right)\right) = \frac{3\sqrt{7}}{8}\right) & .4 = \left(\cos\left(2\arcsin\left(\frac{2}{5}\right)\right) = \frac{17}{25}\right) \\ .5 = \left(\arctan(\operatorname{Cos}(3\pi) + \operatorname{Sin}(\pi)) = -\frac{\pi}{4}\right) & .6 = \left(\operatorname{Cot}\left(\arccos\left(\operatorname{Sin}\left(\frac{5\pi}{6}\right)\right) + \arcsin\left(\operatorname{Cos}\left(\frac{10\pi}{3}\right)\right)\right) = \sqrt{3}\right) \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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

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

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

>