X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6800302-00001XX

TrigonometryExercise Answers for No.10052

$$Ans1 = \left[\sin(A) = \frac{\sqrt{39}}{8}, \cos(A) = \frac{5}{8}, \tan(A) = \frac{\sqrt{39}}{5}, \csc(A) = \frac{8\sqrt{39}}{39}, \sec(A) = \frac{8}{5}, \cot(A) = \frac{5\sqrt{39}}{39}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{4}{5}, \cos(A) = \frac{3}{5}, \tan(A) = \frac{4}{3}, \csc(A) = \frac{5}{4}, \sec(A) = \frac{5}{3}, \cot(A) = \frac{3}{4}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{3}{\sqrt{9+x^2}}, \cos(A) = \frac{x}{\sqrt{9+x^2}}, \tan(A) = \frac{3}{x}, \csc(A) = \frac{\sqrt{9+x^2}}{3}, \sec(A) = \frac{\sqrt{9+x^2}}{x}, \cot(A) = \frac{x}{3}\right]$$

$$Ans4 = \left[\sin(A) = \frac{\sqrt{9-x^2}}{3}, \cos(A) = \frac{x}{3}, \tan(A) = \frac{\sqrt{9-x^2}}{x}, \csc(A) = \frac{3}{\sqrt{9-x^2}}, \sec(A) = \frac{3}{x}, \cot(A) = \frac{x}{\sqrt{9-x^2}}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 4\cos(\theta), 2\pi, 4, [-4, 4]] \\ Ans.3 = [y = \cos(2\theta), \pi, 1, [-1, 1]] \\ Ans.4 = \left[y = 2\cos(6\theta), \frac{\pi}{3}, 2, [-2, 2]\right] \\ Ans.5 = \left[y = \frac{1}{2}\cos(4\theta), \frac{\pi}{2}, \frac{1}{2}, \left[\frac{-1}{2}, \frac{1}{2}\right]\right] \\ Ans.6 = \left[y = 5\cos\left(\frac{\theta}{6}\right) - 5, 12\pi, 5, [-10, 0]\right] \\ Ans.7 = \left[y = -\frac{1}{2}\cos(5\pi\theta), \frac{2}{5}, \frac{1}{2}, \left[\frac{-1}{2}, \frac{1}{2}\right]\right] \\ Ans.8 = \left[y = -5\cos\left(\frac{\pi\theta}{6}\right) + 2, 12, 5, [-3, 7]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -\frac{3}{2}\cos(2x) - 2, red\right] \\ [y = \sin(x) - 3, blue] \\ [y = -3\sin(2\pi x), cyan] \\ \left[y = \frac{1}{2}\cos\left(\frac{\pi x}{3}\right) + 4, black\right] \\ \left[y = -3\sin\left(\frac{x}{2}\right), green\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.10064

$$Ans1 = \left[\sin(A) = \frac{7}{8}, \cos(A) = \frac{\sqrt{15}}{8}, \tan(A) = \frac{7\sqrt{15}}{15}, \csc(A) = \frac{8}{7}, \sec(A) = \frac{8\sqrt{15}}{15}, \cot(A) = \frac{\sqrt{15}}{7}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{2}{9}, \cos(A) = \frac{\sqrt{77}}{9}, \tan(A) = \frac{2\sqrt{77}}{77}, \csc(A) = \frac{9}{2}, \sec(A) = \frac{9\sqrt{77}}{77}, \cot(A) = \frac{\sqrt{77}}{2}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{\sqrt{49 - x^2}}{7}, \cos(A) = \frac{x}{7}, \tan(A) = \frac{\sqrt{49 - x^2}}{x}, \csc(A) = \frac{7}{\sqrt{49 - x^2}}, \sec(A) = \frac{7}{x}, \cot(A) = \frac{x}{\sqrt{49 - x^2}}\right]$$

$$Ans4 = \left[\sin(A) = \frac{5}{\sqrt{25 + x^2}}, \cos(A) = \frac{x}{\sqrt{25 + x^2}}, \tan(A) = \frac{5}{x}, \csc(A) = \frac{\sqrt{25 + x^2}}{5}, \sec(A) = \frac{\sqrt{25 + x^2}}{x}, \cot(A) = \frac{x}{5}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -3\sin(\theta), 2\pi, 3, [-3, 3]] \\ Ans.3 = \left[y = \cos(5\theta), \frac{2\pi}{5}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = 2\cos(6\theta), \frac{\pi}{3}, 2, [-2, 2]\right] \\ Ans.5 = \left[y = -\frac{1}{2}\cos(3\theta), \frac{2\pi}{3}, \frac{1}{2}, \left[\frac{-1}{2}, \frac{1}{2}\right]\right] \\ Ans.6 = \left[y = 6\sin\left(\frac{\theta}{4}\right) + 1, 8\pi, 6, [-5, 7]\right] \\ Ans.7 = \left[y = -\frac{1}{2}\cos\left(\frac{\pi\theta}{6}\right), 12, \frac{1}{2}, \left[\frac{-1}{2}, \frac{1}{2}\right]\right] \\ Ans.8 = \left[y = -3\sin(4\pi\theta) + 2, \frac{1}{2}, 3, [-1, 5]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = \frac{3}{2}\sin(2\pi x) + 4, cyan\right] \\ \left[y = 2\cos\left(\frac{x}{2}\right) - 2, blue\right] \\ \left[y = \frac{3}{2}\cos(2x), red\right] \\ [y = -2\sin(2\pi x), black] \\ [y = -\cos(x), green] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.10076

$$Ans1 = \left[\sin(A) = \frac{7}{9}, \cos(A) = \frac{4\sqrt{2}}{9}, \tan(A) = \frac{7\sqrt{2}}{8}, \csc(A) = \frac{9}{7}, \sec(A) = \frac{9\sqrt{2}}{8}, \cot(A) = \frac{4\sqrt{2}}{7} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans2 = \left[\sin(A) = \frac{5}{9}, \cos(A) = \frac{2\sqrt{14}}{9}, \tan(A) = \frac{5\sqrt{14}}{28}, \csc(A) = \frac{9}{5}, \sec(A) = \frac{9\sqrt{14}}{28}, \cot(A) = \frac{2\sqrt{14}}{5} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans3 = \left[\sin(A) = \sqrt{1-x^2}, \cos(A) = x, \tan(A) = \frac{\sqrt{1-x^2}}{x}, \csc(A) = \frac{1}{\sqrt{1-x^2}}, \sec(A) = \frac{1}{x}, \cot(A) = \frac{x}{\sqrt{1-x^2}} \right]$$

$$Ans4 = \left[\sin(A) = \frac{x}{\sqrt{x^2+16}}, \cos(A) = \frac{4}{\sqrt{x^2+16}}, \tan(A) = \frac{x}{4}, \csc(A) = \frac{\sqrt{x^2+16}}{x}, \sec(A) = \frac{\sqrt{x^2+16}}{4}, \cot(A) = \frac{4}{x} \right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 2\cos(\theta), 2\pi, 2, [-2, 2]] \\ Ans.3 = \left[y = \cos(4\theta), \frac{\pi}{2}, 1, [-1, 1] \right] \\ Ans.4 = \left[y = -4\sin(6\theta), \frac{\pi}{3}, 4, [-4, 4] \right] \\ Ans.5 = \left[y = -\frac{1}{6}\cos(3\theta), \frac{2\pi}{3}, \frac{1}{6}, \left[\frac{-1}{6}, \frac{1}{6} \right] \right] \\ Ans.6 = \left[y = -5\cos\left(\frac{\theta}{4}\right) - 5, 8\pi, 5, [-10, 0] \right] \\ Ans.7 = \left[y = -\frac{1}{4}\sin(3\pi\theta), \frac{2}{3}, \frac{1}{4}, \left[\frac{-1}{4}, \frac{1}{4} \right] \right] \\ Ans.8 = \left[y = -5\cos\left(\frac{\pi\theta}{2}\right) - 1, 4, 5, [-6, 4] \right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} [y = \cos(x) + 3, blue] \\ \left[y = \frac{1}{2}\sin\left(\frac{x}{3}\right) - 4, cyan \right] \\ \left[y = -3\cos\left(\frac{x}{3}\right), red \right] \\ \left[y = \frac{1}{2}\sin\left(\frac{\pi x}{2}\right) + 3, green \right] \\ \left[y = -3\sin\left(\frac{\pi x}{3}\right), black \right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.10077

$$Ans1 = \left[\sin(A) = \frac{2\sqrt{10}}{7}, \cos(A) = \frac{3}{7}, \tan(A) = \frac{2\sqrt{10}}{3}, \csc(A) = \frac{7\sqrt{10}}{20}, \sec(A) = \frac{7}{3}, \cot(A) = \frac{3\sqrt{10}}{20}\right], \quad \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{\sqrt{39}}{8}, \cos(A) = \frac{5}{8}, \tan(A) = \frac{\sqrt{39}}{5}, \csc(A) = \frac{8\sqrt{39}}{39}, \sec(A) = \frac{8}{5}, \cot(A) = \frac{5\sqrt{39}}{39}\right], \quad \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{5}{\sqrt{25+x^2}}, \cos(A) = \frac{x}{\sqrt{25+x^2}}, \tan(A) = \frac{5}{x}, \csc(A) = \frac{\sqrt{25+x^2}}{5}, \sec(A) = \frac{\sqrt{25+x^2}}{x}, \cot(A) = \frac{x}{5}\right]$$

$$Ans4 = \left[\sin(A) = \frac{7}{x}, \cos(A) = \frac{\sqrt{x^2-49}}{x}, \tan(A) = \frac{7}{\sqrt{x^2-49}}, \csc(A) = \frac{x}{7}, \sec(A) = \frac{x}{\sqrt{x^2-49}}, \cot(A) = \frac{\sqrt{x^2-49}}{7}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 6\sin(\theta), 2\pi, 6, [-6, 6]] \\ Ans.3 = \left[y = \sin(4\theta), \frac{\pi}{2}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = 2\sin(5\theta), \frac{2\pi}{5}, 2, [-2, 2]\right] \\ Ans.5 = \left[y = -6\sin\left(\frac{\theta}{2}\right), 4\pi, 6, [-6, 6]\right] \\ Ans.6 = \left[y = \frac{1}{3}\cos(2\theta) - 4, \pi, \frac{1}{3}, \left[\frac{-13}{3}, \frac{-11}{3}\right]\right] \\ Ans.7 = \left[y = -\frac{1}{2}\sin\left(\frac{\pi\theta}{3}\right), 6, \frac{1}{2}, \left[\frac{-1}{2}, \frac{1}{2}\right]\right] \\ Ans.8 = \left[y = -4\cos(3\pi\theta) - 3, \frac{2}{3}, 4, [-7, 1]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} [y = \cos(x) - 2, blue] \\ \left[y = \frac{1}{2}\sin(2x), red\right] \\ [y = -3\sin(2\pi x) + 3, cyan] \\ \left[y = \frac{3}{2}\sin(2x) - 2, black\right] \\ \left[y = -\frac{1}{2}\cos\left(\frac{\pi x}{3}\right), green\right] \end{bmatrix}, \quad \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.10083

$$Ans1 = \left[\sin(A) = \frac{\sqrt{77}}{9}, \cos(A) = \frac{2}{9}, \tan(A) = \frac{\sqrt{77}}{2}, \csc(A) = \frac{9\sqrt{77}}{77}, \sec(A) = \frac{9}{2}, \cot(A) = \frac{2\sqrt{77}}{77} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans2 = \left[\sin(A) = \frac{2}{7}, \cos(A) = \frac{3\sqrt{5}}{7}, \tan(A) = \frac{2\sqrt{5}}{15}, \csc(A) = \frac{7}{2}, \sec(A) = \frac{7\sqrt{5}}{15}, \cot(A) = \frac{3\sqrt{5}}{2} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans3 = \left[\sin(A) = \frac{1}{x}, \cos(A) = \frac{\sqrt{x^2 - 1}}{x}, \tan(A) = \frac{1}{\sqrt{x^2 - 1}}, \csc(A) = x, \sec(A) = \frac{x}{\sqrt{x^2 - 1}}, \cot(A) = \sqrt{x^2 - 1} \right]$$

$$Ans4 = \left[\sin(A) = \frac{\sqrt{49 - x^2}}{7}, \cos(A) = \frac{x}{7}, \tan(A) = \frac{\sqrt{49 - x^2}}{x}, \csc(A) = \frac{7}{\sqrt{49 - x^2}}, \sec(A) = \frac{7}{x}, \cot(A) = \frac{x}{\sqrt{49 - x^2}} \right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -3\sin(\theta), 2\pi, 3, [-3, 3]] \\ Ans.3 = [y = \cos(2\theta), \pi, 1, [-1, 1]] \\ Ans.4 = [y = -4\cos(2\theta), \pi, 4, [-4, 4]] \\ Ans.5 = \left[y = \frac{1}{5}\sin(4\theta), \frac{\pi}{2}, \frac{1}{5}, \left[\frac{-1}{5}, \frac{1}{5} \right] \right] \\ Ans.6 = \left[y = 6\sin\left(\frac{\theta}{5}\right) + 1, 10\pi, 6, [-5, 7] \right] \\ Ans.7 = \left[y = -6\cos(5\pi\theta), \frac{2}{5}, 6, [-6, 6] \right] \\ Ans.8 = \left[y = -\frac{1}{4}\sin\left(\frac{\pi\theta}{6}\right) + 3, 12, \frac{1}{4}, \left[\frac{11}{4}, \frac{13}{4} \right] \right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = 2\sin\left(\frac{\pi x}{3}\right), red \right] \\ [y = \sin(x) - 1, cyan] \\ \left[y = -2\cos\left(\frac{x}{3}\right), blue \right] \\ \left[y = \frac{1}{2}\sin\left(\frac{x}{2}\right) + 2, green \right] \\ \left[y = -\frac{1}{2}\cos\left(\frac{\pi x}{3}\right) - 4, black \right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.10109

$$Ans1 = \left[\sin(A) = \frac{4\sqrt{2}}{9}, \cos(A) = \frac{7}{9}, \tan(A) = \frac{4\sqrt{2}}{7}, \csc(A) = \frac{9\sqrt{2}}{8}, \sec(A) = \frac{9}{7}, \cot(A) = \frac{7\sqrt{2}}{8}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{3}{7}, \cos(A) = \frac{2\sqrt{10}}{7}, \tan(A) = \frac{3\sqrt{10}}{20}, \csc(A) = \frac{7}{3}, \sec(A) = \frac{7\sqrt{10}}{20}, \cot(A) = \frac{2\sqrt{10}}{3}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{5}{\sqrt{25+x^2}}, \cos(A) = \frac{x}{\sqrt{25+x^2}}, \tan(A) = \frac{5}{x}, \csc(A) = \frac{\sqrt{25+x^2}}{5}, \sec(A) = \frac{\sqrt{25+x^2}}{x}, \cot(A) = \frac{x}{5}\right]$$

$$Ans4 = \left[\sin(A) = \frac{6}{\sqrt{36+x^2}}, \cos(A) = \frac{x}{\sqrt{36+x^2}}, \tan(A) = \frac{6}{x}, \csc(A) = \frac{\sqrt{36+x^2}}{6}, \sec(A) = \frac{\sqrt{36+x^2}}{x}, \cot(A) = \frac{x}{6}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -4\cos(\theta), 2\pi, 4, [-4, 4]] \\ Ans.3 = \left[y = \cos(3\theta), \frac{2\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = -2\cos(6\theta), \frac{\pi}{3}, 2, [-2, 2]\right] \\ Ans.5 = \left[y = -\frac{1}{5}\cos(4\theta), \frac{\pi}{2}, \frac{1}{5}, \left[\frac{-1}{5}, \frac{1}{5}\right]\right] \\ Ans.6 = \left[y = -6\cos\left(\frac{\theta}{4}\right) - 5, 8\pi, 6, [-11, 1]\right] \\ Ans.7 = \left[y = -\frac{1}{3}\sin\left(\frac{\pi\theta}{6}\right), 12, \frac{1}{3}, \left[\frac{-1}{3}, \frac{1}{3}\right]\right] \\ Ans.8 = \left[y = -5\sin(6\pi\theta) - 1, \frac{1}{3}, 5, [-6, 4]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -2\sin\left(\frac{x}{2}\right) + 3, green\right] \\ \left[y = 2\sin\left(\frac{\pi x}{2}\right) + 2, cyan\right] \\ [y = 2\cos(2\pi x), black] \\ \left[y = 2\cos\left(\frac{x}{3}\right), blue\right] \\ [y = -\cos(x) - 2, red] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.10180

$$Ans1 = \left[\sin(A) = \frac{4}{5}, \cos(A) = \frac{3}{5}, \tan(A) = \frac{4}{3}, \csc(A) = \frac{5}{4}, \sec(A) = \frac{5}{3}, \cot(A) = \frac{3}{4}\right], \left[\begin{array}{c} \sqrt{:)} \\ :(\end{array}\right]$$

$$Ans2 = \left[\sin(A) = \frac{3}{4}, \cos(A) = \frac{\sqrt{7}}{4}, \tan(A) = \frac{3\sqrt{7}}{7}, \csc(A) = \frac{4}{3}, \sec(A) = \frac{4\sqrt{7}}{7}, \cot(A) = \frac{\sqrt{7}}{3}\right], \left[\begin{array}{c} \sqrt{:)} \\ :(\end{array}\right]$$

$$Ans3 = \left[\sin(A) = \frac{x}{6}, \cos(A) = \frac{\sqrt{36-x^2}}{6}, \tan(A) = \frac{x}{\sqrt{36-x^2}}, \csc(A) = \frac{6}{x}, \sec(A) = \frac{6}{\sqrt{36-x^2}}, \cot(A) = \frac{\sqrt{36-x^2}}{x}\right]$$

$$Ans4 = \left[\sin(A) = \frac{x}{\sqrt{25+x^2}}, \cos(A) = \frac{5}{\sqrt{25+x^2}}, \tan(A) = \frac{x}{5}, \csc(A) = \frac{\sqrt{25+x^2}}{x}, \sec(A) = \frac{\sqrt{25+x^2}}{5}, \cot(A) = \frac{5}{x}\right]$$

$$Ans5 = \left[\begin{array}{c}
Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\
Ans.2 = [y = 3\sin(\theta), 2\pi, 3, [-3, 3]] \\
Ans.3 = \left[y = \cos(3\theta), \frac{2\pi}{3}, 1, [-1, 1]\right] \\
Ans.4 = \left[y = 6\sin(5\theta), \frac{2\pi}{5}, 6, [-6, 6]\right] \\
Ans.5 = \left[y = \frac{1}{3}\cos(2\theta), \pi, \frac{1}{3}, \left[\frac{-1}{3}, \frac{1}{3}\right]\right] \\
Ans.6 = \left[y = -4\sin\left(\frac{\theta}{5}\right) - 4, 10\pi, 4, [-8, 0]\right] \\
Ans.7 = \left[y = -\frac{1}{4}\cos\left(\frac{\pi\theta}{2}\right), 4, \frac{1}{4}, \left[\frac{-1}{4}, \frac{1}{4}\right]\right] \\
Ans.8 = \left[y = -2\sin(4\pi\theta) - 4, \frac{1}{2}, 2, [-6, -2]\right]
\end{array}\right], \quad Ans6 = \left[\begin{array}{c}
\left[y = 3\sin\left(\frac{\pi x}{2}\right), cyan\right] \\
\left[y = \frac{5}{2}\cos\left(\frac{\pi x}{3}\right) + 2, green\right] \\
[y = -\cos(x) - 2, black] \\
\left[y = \frac{3}{2}\sin\left(\frac{x}{3}\right) + 4, blue\right] \\
[y = -2\sin(2x), red]
\end{array}\right], \left[\begin{array}{c} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{array}\right]$$

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TrigonometryExercise Answers for No.10181

$$Ans1 = \left[\sin(A) = \frac{5\sqrt{34}}{34}, \cos(A) = \frac{3\sqrt{34}}{34}, \tan(A) = \frac{5}{3}, \csc(A) = \frac{\sqrt{34}}{5}, \sec(A) = \frac{\sqrt{34}}{3}, \cot(A) = \frac{3}{5}\right], \quad \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{3}{5}, \cos(A) = \frac{4}{5}, \tan(A) = \frac{3}{4}, \csc(A) = \frac{5}{3}, \sec(A) = \frac{5}{4}, \cot(A) = \frac{4}{3}\right], \quad \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = x, \cos(A) = \sqrt{1-x^2}, \tan(A) = \frac{x}{\sqrt{1-x^2}}, \csc(A) = \frac{1}{x}, \sec(A) = \frac{1}{\sqrt{1-x^2}}, \cot(A) = \frac{\sqrt{1-x^2}}{x}\right]$$

$$Ans4 = \left[\sin(A) = \frac{4}{\sqrt{x^2+16}}, \cos(A) = \frac{x}{\sqrt{x^2+16}}, \tan(A) = \frac{4}{x}, \csc(A) = \frac{\sqrt{x^2+16}}{4}, \sec(A) = \frac{\sqrt{x^2+16}}{x}, \cot(A) = \frac{x}{4}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 4\cos(\theta), 2\pi, 4, [-4, 4]] \\ Ans.3 = \left[y = \cos(3\theta), \frac{2\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = [y = -4\cos(2\theta), \pi, 4, [-4, 4]] \\ Ans.5 = \left[y = -4\cos\left(\frac{\theta}{5}\right), 10\pi, 4, [-4, 4]\right] \\ Ans.6 = \left[y = -\frac{1}{6}\sin(3\theta) - 1, \frac{2\pi}{3}, \frac{1}{6}, \left[\frac{-7}{6}, \frac{-5}{6}\right]\right] \\ Ans.7 = \left[y = -4\sin(6\pi\theta), \frac{1}{3}, 4, [-4, 4]\right] \\ Ans.8 = \left[y = -\frac{1}{3}\cos\left(\frac{\pi\theta}{4}\right) + 4, 8, \frac{1}{3}, \left[\frac{11}{3}, \frac{13}{3}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = \frac{3}{2}\sin(2\pi x) + 2, black\right] \\ \left[y = 2\cos\left(\frac{x}{2}\right) + 4, red\right] \\ \left[y = -2\cos\left(\frac{x}{2}\right), blue\right] \\ [y = -\sin(x) - 2, green] \\ [y = 2\sin(2\pi x), cyan] \end{bmatrix}, \quad \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.10191

$$Ans1 = \left[\sin(A) = \frac{2}{5}, \cos(A) = \frac{\sqrt{21}}{5}, \tan(A) = \frac{2\sqrt{21}}{21}, \csc(A) = \frac{5}{2}, \sec(A) = \frac{5\sqrt{21}}{21}, \cot(A) = \frac{\sqrt{21}}{2}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{\sqrt{33}}{7}, \cos(A) = \frac{4}{7}, \tan(A) = \frac{\sqrt{33}}{4}, \csc(A) = \frac{7\sqrt{33}}{33}, \sec(A) = \frac{7}{4}, \cot(A) = \frac{4\sqrt{33}}{33}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{\sqrt{9-x^2}}{3}, \cos(A) = \frac{x}{3}, \tan(A) = \frac{\sqrt{9-x^2}}{x}, \csc(A) = \frac{3}{\sqrt{9-x^2}}, \sec(A) = \frac{3}{x}, \cot(A) = \frac{x}{\sqrt{9-x^2}}\right]$$

$$Ans4 = \left[\sin(A) = \frac{4}{x}, \cos(A) = \frac{\sqrt{x^2-16}}{x}, \tan(A) = \frac{4}{\sqrt{x^2-16}}, \csc(A) = \frac{x}{4}, \sec(A) = \frac{x}{\sqrt{x^2-16}}, \cot(A) = \frac{\sqrt{x^2-16}}{4}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 4\cos(\theta), 2\pi, 4, [-4, 4]] \\ Ans.3 = [y = \sin(2\theta), \pi, 1, [-1, 1]] \\ Ans.4 = [y = 4\sin(2\theta), \pi, 4, [-4, 4]] \\ Ans.5 = \left[y = \frac{1}{3}\sin(4\theta), \frac{\pi}{2}, \frac{1}{3}, \left[\frac{-1}{3}, \frac{1}{3}\right]\right] \\ Ans.6 = \left[y = 3\sin\left(\frac{\theta}{5}\right) - 1, 10\pi, 3, [-4, 2]\right] \\ Ans.7 = \left[y = -4\cos\left(\frac{\pi\theta}{6}\right), 12, 4, [-4, 4]\right] \\ Ans.8 = \left[y = -\frac{1}{2}\cos(3\pi\theta) + 1, \frac{2}{3}, \frac{1}{2}, \left[\frac{1}{2}, \frac{3}{2}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = \frac{3}{2}\cos\left(\frac{x}{2}\right), black\right] \\ [y = -\sin(x) - 2, blue] \\ \left[y = -3\cos\left(\frac{x}{3}\right) + 4, cyan\right] \\ \left[y = -\frac{3}{2}\sin\left(\frac{\pi x}{2}\right) + 3, red\right] \\ [y = 2\cos(2\pi x), green] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.10281

$$Ans1=\left[\sin(A)=\frac{2}{7},\cos(A)=\frac{3\sqrt{5}}{7},\tan(A)=\frac{2\sqrt{5}}{15},\csc(A)=\frac{7}{2},\sec(A)=\frac{7\sqrt{5}}{15},\cot(A)=\frac{3\sqrt{5}}{2}\right],\quad,\left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2=\left[\sin(A)=\frac{3}{8},\cos(A)=\frac{\sqrt{55}}{8},\tan(A)=\frac{3\sqrt{55}}{55},\csc(A)=\frac{8}{3},\sec(A)=\frac{8\sqrt{55}}{55},\cot(A)=\frac{\sqrt{55}}{3}\right],\quad,\left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3=\left[\sin(A)=\frac{7}{\sqrt{49+x^2}},\cos(A)=\frac{x}{\sqrt{49+x^2}},\tan(A)=\frac{7}{x},\csc(A)=\frac{\sqrt{49+x^2}}{7},\sec(A)=\frac{\sqrt{49+x^2}}{x},\cot(A)=\frac{x}{7}\right]$$

$$Ans4=\left[\sin(A)=\frac{\sqrt{16-x^2}}{4},\cos(A)=\frac{x}{4},\tan(A)=\frac{\sqrt{16-x^2}}{x},\csc(A)=\frac{4}{\sqrt{16-x^2}},\sec(A)=\frac{4}{x},\cot(A)=\frac{x}{\sqrt{16-x^2}}\right]$$

$$Ans5=\begin{bmatrix} Ans.1=[y=\sin(\theta),2\pi,1,[-1,1]] \\ Ans.2=[y=-4\cos(\theta),2\pi,4,[-4,4]] \\ Ans.3=[y=\cos(2\theta),\pi,1,[-1,1]] \\ Ans.4=\left[y=3\cos(4\theta),\frac{\pi}{2},3,[-3,3]\right] \\ Ans.5=\left[y=-\frac{1}{4}\sin(3\theta),\frac{2\pi}{3},\frac{1}{4},\left[\frac{-1}{4},\frac{1}{4}\right]\right] \\ Ans.6=\left[y=2\sin\left(\frac{\theta}{6}\right)+1,12\pi,2,[-1,3]\right] \\ Ans.7=[y=-6\cos(2\pi\theta),1,6,[-6,6]] \\ Ans.8=\left[y=-\frac{1}{3}\sin\left(\frac{\pi\theta}{6}\right)+5,12,\frac{1}{3},\left[\frac{14}{3},\frac{16}{3}\right]\right] \end{bmatrix},\quad Ans6=\begin{bmatrix} \left[y=-\frac{1}{2}\sin\left(\frac{x}{2}\right),black\right] \\ \left[y=-2\cos\left(\frac{\pi x}{2}\right),green\right] \\ \left[y=\frac{1}{2}\sin\left(\frac{\pi x}{2}\right)-3,red\right] \\ [y=\cos(x)-3,blue] \\ \left[y=-3\sin\left(\frac{x}{3}\right)+2,cyan\right] \end{bmatrix},\begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

TrigonometryExercise Answers for No.10437

$$Ans1 = \left[\sin(A) = \frac{2}{3}, \cos(A) = \frac{\sqrt{5}}{3}, \tan(A) = \frac{2\sqrt{5}}{5}, \csc(A) = \frac{3}{2}, \sec(A) = \frac{3\sqrt{5}}{5}, \cot(A) = \frac{\sqrt{5}}{2}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{5}{8}, \cos(A) = \frac{\sqrt{39}}{8}, \tan(A) = \frac{5\sqrt{39}}{39}, \csc(A) = \frac{8}{5}, \sec(A) = \frac{8\sqrt{39}}{39}, \cot(A) = \frac{\sqrt{39}}{5}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \sqrt{1-x^2}, \cos(A) = x, \tan(A) = \frac{\sqrt{1-x^2}}{x}, \csc(A) = \frac{1}{\sqrt{1-x^2}}, \sec(A) = \frac{1}{x}, \cot(A) = \frac{x}{\sqrt{1-x^2}}\right]$$

$$Ans4 = \left[\sin(A) = \frac{2}{\sqrt{4+x^2}}, \cos(A) = \frac{x}{\sqrt{4+x^2}}, \tan(A) = \frac{2}{x}, \csc(A) = \frac{\sqrt{4+x^2}}{2}, \sec(A) = \frac{\sqrt{4+x^2}}{x}, \cot(A) = \frac{x}{2}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -4\cos(\theta), 2\pi, 4, [-4, 4]] \\ Ans.3 = \left[y = \cos(3\theta), \frac{2\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = 2\sin(3\theta), \frac{2\pi}{3}, 2, [-2, 2]\right] \\ Ans.5 = \left[y = \frac{1}{6}\cos(3\theta), \frac{2\pi}{3}, \frac{1}{6}, \left[\frac{-1}{6}, \frac{1}{6}\right]\right] \\ Ans.6 = \left[y = -3\sin\left(\frac{\theta}{6}\right) - 3, 12\pi, 3, [-6, 0]\right] \\ Ans.7 = \left[y = -2\cos\left(\frac{\pi\theta}{6}\right), 12, 2, [-2, 2]\right] \\ Ans.8 = \left[y = -\frac{1}{6}\sin(3\pi\theta) + 4, \frac{2}{3}, \frac{1}{6}, \left[\frac{23}{6}, \frac{25}{6}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -\frac{3}{2}\cos\left(\frac{\pi x}{3}\right) - 4, blue\right] \\ \left[y = 2\cos\left(\frac{\pi x}{2}\right), red\right] \\ \left[y = \frac{1}{2}\cos\left(\frac{x}{3}\right) + 3, green\right] \\ \left[y = -\frac{5}{2}\sin\left(\frac{x}{2}\right), cyan\right] \\ [y = -\sin(x), black] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

TrigonometryExercise Answers for No.10493

$$Ans1 = \left[\sin(A) = \frac{3}{4}, \cos(A) = \frac{\sqrt{7}}{4}, \tan(A) = \frac{3\sqrt{7}}{7}, \csc(A) = \frac{4}{3}, \sec(A) = \frac{4\sqrt{7}}{7}, \cot(A) = \frac{\sqrt{7}}{3}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{2\sqrt{6}}{7}, \cos(A) = \frac{5}{7}, \tan(A) = \frac{2\sqrt{6}}{5}, \csc(A) = \frac{7\sqrt{6}}{12}, \sec(A) = \frac{7}{5}, \cot(A) = \frac{5\sqrt{6}}{12}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{x}{\sqrt{x^2+1}}, \cos(A) = \frac{1}{\sqrt{x^2+1}}, \tan(A) = x, \csc(A) = \frac{\sqrt{x^2+1}}{x}, \sec(A) = \sqrt{x^2+1}, \cot(A) = \frac{1}{x}\right]$$

$$Ans4 = \left[\sin(A) = x, \cos(A) = \sqrt{1-x^2}, \tan(A) = \frac{x}{\sqrt{1-x^2}}, \csc(A) = \frac{1}{x}, \sec(A) = \frac{1}{\sqrt{1-x^2}}, \cot(A) = \frac{\sqrt{1-x^2}}{x}\right]$$

$$Ans5 = \left[\begin{array}{c} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 3\sin(\theta), 2\pi, 3, [-3, 3]] \\ Ans.3 = \left[y = \cos(4\theta), \frac{\pi}{2}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = 2\cos(4\theta), \frac{\pi}{2}, 2, [-2, 2]\right] \\ Ans.5 = \left[y = \frac{1}{6}\sin(2\theta), \pi, \frac{1}{6}, \left[\frac{-1}{6}, \frac{1}{6}\right]\right] \\ Ans.6 = \left[y = 2\cos\left(\frac{\theta}{4}\right) + 3, 8\pi, 2, [1, 5]\right] \\ Ans.7 = \left[y = -3\sin(4\pi\theta), \frac{1}{2}, 3, [-3, 3]\right] \\ Ans.8 = \left[y = -\frac{1}{2}\sin\left(\frac{\pi\theta}{6}\right) + 3, 12, \frac{1}{2}, \left[\frac{5}{2}, \frac{7}{2}\right]\right] \end{array}\right], \quad Ans6 = \left[\begin{array}{c} \left[y = \frac{3}{2}\sin(2\pi x) + 4, red\right] \\ \left[y = 3\cos\left(\frac{\pi x}{2}\right), green\right] \\ [y = \sin(x) - 2, cyan] \\ \left[y = -\frac{1}{2}\cos\left(\frac{x}{2}\right) - 3, black\right] \\ \left[y = -2\cos\left(\frac{x}{2}\right), blue\right] \end{array}\right], \left[\begin{array}{c} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{array}\right]$$

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TrigonometryExercise Answers for No.10596

$$Ans1 = \left[\sin(A) = \frac{4}{7}, \cos(A) = \frac{\sqrt{33}}{7}, \tan(A) = \frac{4\sqrt{33}}{33}, \csc(A) = \frac{7}{4}, \sec(A) = \frac{7\sqrt{33}}{33}, \cot(A) = \frac{\sqrt{33}}{4}\right], \quad, \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{7}{8}, \cos(A) = \frac{\sqrt{15}}{8}, \tan(A) = \frac{7\sqrt{15}}{15}, \csc(A) = \frac{8}{7}, \sec(A) = \frac{8\sqrt{15}}{15}, \cot(A) = \frac{\sqrt{15}}{7}\right], \quad, \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{\sqrt{9-x^2}}{3}, \cos(A) = \frac{x}{3}, \tan(A) = \frac{\sqrt{9-x^2}}{x}, \csc(A) = \frac{3}{\sqrt{9-x^2}}, \sec(A) = \frac{3}{x}, \cot(A) = \frac{x}{\sqrt{9-x^2}}\right]$$

$$Ans4 = \left[\sin(A) = \frac{\sqrt{4-x^2}}{2}, \cos(A) = \frac{x}{2}, \tan(A) = \frac{\sqrt{4-x^2}}{x}, \csc(A) = \frac{2}{\sqrt{4-x^2}}, \sec(A) = \frac{2}{x}, \cot(A) = \frac{x}{\sqrt{4-x^2}}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -2\cos(\theta), 2\pi, 2, [-2, 2]] \\ Ans.3 = \left[y = \cos(6\theta), \frac{\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = 5\sin(3\theta), \frac{2\pi}{3}, 5, [-5, 5]\right] \\ Ans.5 = \left[y = -\frac{1}{3}\cos(5\theta), \frac{2\pi}{5}, \frac{1}{3}, \left[\frac{-1}{3}, \frac{1}{3}\right]\right] \\ Ans.6 = \left[y = -4\sin\left(\frac{\theta}{2}\right) - 4, 4\pi, 4, [-8, 0]\right] \\ Ans.7 = \left[y = -5\sin(6\pi\theta), \frac{1}{3}, 5, [-5, 5]\right] \\ Ans.8 = \left[y = -\frac{1}{6}\sin\left(\frac{\pi\theta}{3}\right) - 2, 6, \frac{1}{6}, \left[\frac{-13}{6}, \frac{-11}{6}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -3\cos\left(\frac{\pi x}{3}\right) + 4, red\right] \\ \left[y = -3\sin\left(\frac{x}{3}\right) - 4, blue\right] \\ [y = \sin(x) - 2, green] \\ \left[y = -3\cos\left(\frac{x}{2}\right), cyan\right] \\ \left[y = \frac{1}{2}\cos\left(\frac{\pi x}{2}\right), black\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

TrigonometryExercise Answers for No.10599

$$Ans1 = \left[\sin(A) = \frac{\sqrt{11}}{6}, \cos(A) = \frac{5}{6}, \tan(A) = \frac{\sqrt{11}}{5}, \csc(A) = \frac{6\sqrt{11}}{11}, \sec(A) = \frac{6}{5}, \cot(A) = \frac{5\sqrt{11}}{11}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{8}{9}, \cos(A) = \frac{\sqrt{17}}{9}, \tan(A) = \frac{8\sqrt{17}}{17}, \csc(A) = \frac{9}{8}, \sec(A) = \frac{9\sqrt{17}}{17}, \cot(A) = \frac{\sqrt{17}}{8}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{7}{x}, \cos(A) = \frac{\sqrt{x^2-49}}{x}, \tan(A) = \frac{7}{\sqrt{x^2-49}}, \csc(A) = \frac{x}{7}, \sec(A) = \frac{x}{\sqrt{x^2-49}}, \cot(A) = \frac{\sqrt{x^2-49}}{7}\right]$$

$$Ans4 = \left[\sin(A) = \frac{x}{\sqrt{x^2+16}}, \cos(A) = \frac{4}{\sqrt{x^2+16}}, \tan(A) = \frac{x}{4}, \csc(A) = \frac{\sqrt{x^2+16}}{x}, \sec(A) = \frac{\sqrt{x^2+16}}{4}, \cot(A) = \frac{4}{x}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 6\cos(\theta), 2\pi, 6, [-6, 6]] \\ Ans.3 = \left[y = \sin(6\theta), \frac{\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = 2\cos(6\theta), \frac{\pi}{3}, 2, [-2, 2]\right] \\ Ans.5 = \left[y = -\frac{1}{3}\sin(4\theta), \frac{\pi}{2}, \frac{1}{3}, \left[\frac{-1}{3}, \frac{1}{3}\right]\right] \\ Ans.6 = \left[y = -2\sin\left(\frac{\theta}{5}\right) + 5, 10\pi, 2, [3, 7]\right] \\ Ans.7 = \left[y = -\frac{1}{6}\cos\left(\frac{\pi\theta}{2}\right), 4, \frac{1}{6}, \left[\frac{-1}{6}, \frac{1}{6}\right]\right] \\ Ans.8 = \left[y = -3\sin(5\pi\theta) - 5, \frac{2}{5}, 3, [-8, -2]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = 2\sin\left(\frac{x}{2}\right) - 2, cyan\right] \\ \left[y = -\frac{3}{2}\cos\left(\frac{\pi x}{3}\right), green\right] \\ \left[y = \frac{1}{2}\sin\left(\frac{\pi x}{3}\right) + 4, red\right] \\ [y = \sin(x) + 3, blue] \\ [y = -2\cos(2x), black] \end{bmatrix}, \begin{bmatrix} \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\end{bmatrix}$$

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TrigonometryExercise Answers for No.11068

$$Ans1 = \left[\sin(A) = \frac{7}{8}, \cos(A) = \frac{\sqrt{15}}{8}, \tan(A) = \frac{7\sqrt{15}}{15}, \csc(A) = \frac{8}{7}, \sec(A) = \frac{8\sqrt{15}}{15}, \cot(A) = \frac{\sqrt{15}}{7}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{5\sqrt{29}}{29}, \cos(A) = \frac{2\sqrt{29}}{29}, \tan(A) = \frac{5}{2}, \csc(A) = \frac{\sqrt{29}}{5}, \sec(A) = \frac{\sqrt{29}}{2}, \cot(A) = \frac{2}{5}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{x}{\sqrt{36+x^2}}, \cos(A) = \frac{6}{\sqrt{36+x^2}}, \tan(A) = \frac{x}{6}, \csc(A) = \frac{\sqrt{36+x^2}}{x}, \sec(A) = \frac{\sqrt{36+x^2}}{6}, \cot(A) = \frac{6}{x}\right]$$

$$Ans4 = \left[\sin(A) = \frac{x}{5}, \cos(A) = \frac{\sqrt{25-x^2}}{5}, \tan(A) = \frac{x}{\sqrt{25-x^2}}, \csc(A) = \frac{5}{x}, \sec(A) = \frac{5}{\sqrt{25-x^2}}, \cot(A) = \frac{\sqrt{25-x^2}}{x}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -5\cos(\theta), 2\pi, 5, [-5, 5]] \\ Ans.3 = \left[y = \sin(5\theta), \frac{2\pi}{5}, 1, [-1, 1]\right] \\ Ans.4 = [y = -6\cos(2\theta), \pi, 6, [-6, 6]] \\ Ans.5 = \left[y = 3\sin\left(\frac{\theta}{5}\right), 10\pi, 3, [-3, 3]\right] \\ Ans.6 = \left[y = \frac{1}{5}\sin(6\theta) - 3, \frac{\pi}{3}, \frac{1}{5}, \left[\frac{-16}{5}, \frac{-14}{5}\right]\right] \\ Ans.7 = \left[y = -\frac{1}{4}\cos(2\pi\theta), 1, \frac{1}{4}, \left[\frac{-1}{4}, \frac{1}{4}\right]\right] \\ Ans.8 = \left[y = -6\sin\left(\frac{\pi\theta}{5}\right) + 3, 10, 6, [-3, 9]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} [y = -\sin(x) + 3, blue] \\ \left[y = -2\sin\left(\frac{x}{3}\right) - 2, cyan\right] \\ [y = -2\sin(2x), red] \\ \left[y = \frac{3}{2}\cos(2\pi x) + 2, green\right] \\ \left[y = \frac{5}{2}\cos(2\pi x), black\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.11423

$$Ans1 = \left[\sin(A) = \frac{7\sqrt{74}}{74}, \cos(A) = \frac{5\sqrt{74}}{74}, \tan(A) = \frac{7}{5}, \csc(A) = \frac{\sqrt{74}}{7}, \sec(A) = \frac{\sqrt{74}}{5}, \cot(A) = \frac{5}{7} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans2 = \left[\sin(A) = \frac{7}{9}, \cos(A) = \frac{4\sqrt{2}}{9}, \tan(A) = \frac{7\sqrt{2}}{8}, \csc(A) = \frac{9}{7}, \sec(A) = \frac{9\sqrt{2}}{8}, \cot(A) = \frac{4\sqrt{2}}{7} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans3 = \left[\sin(A) = \frac{x}{7}, \cos(A) = \frac{\sqrt{49-x^2}}{7}, \tan(A) = \frac{x}{\sqrt{49-x^2}}, \csc(A) = \frac{7}{x}, \sec(A) = \frac{7}{\sqrt{49-x^2}}, \cot(A) = \frac{\sqrt{49-x^2}}{x} \right]$$

$$Ans4 = \left[\sin(A) = \frac{5}{\sqrt{25+x^2}}, \cos(A) = \frac{x}{\sqrt{25+x^2}}, \tan(A) = \frac{5}{x}, \csc(A) = \frac{\sqrt{25+x^2}}{5}, \sec(A) = \frac{\sqrt{25+x^2}}{x}, \cot(A) = \frac{x}{5} \right]$$

$$Ans5 = \left[\begin{array}{c} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -5\cos(\theta), 2\pi, 5, [-5, 5]] \\ Ans.3 = \left[y = \cos(3\theta), \frac{2\pi}{3}, 1, [-1, 1] \right] \\ Ans.4 = \left[y = -6\sin(5\theta), \frac{2\pi}{5}, 6, [-6, 6] \right] \\ Ans.5 = \left[y = \frac{1}{2}\sin(5\theta), \frac{2\pi}{5}, \frac{1}{2}, \left[\frac{-1}{2}, \frac{1}{2} \right] \right] \\ Ans.6 = \left[y = -6\cos\left(\frac{\theta}{3}\right) - 4, 6\pi, 6, [-10, 2] \right] \\ Ans.7 = \left[y = -2\sin(3\pi\theta), \frac{2}{3}, 2, [-2, 2] \right] \\ Ans.8 = \left[y = -\frac{1}{5}\sin\left(\frac{\pi\theta}{2}\right) - 4, 4, \frac{1}{5}, \left[\frac{-21}{5}, \frac{-19}{5} \right] \right] \end{array} \right], \quad Ans6 = \left[\begin{array}{c} \left[y = -\frac{3}{2}\cos\left(\frac{\pi x}{2}\right) + 4, red \right] \\ \left[y = \frac{3}{2}\cos\left(\frac{x}{3}\right), cyan \right] \\ \left[y = \frac{5}{2}\sin\left(\frac{x}{3}\right) - 2, blue \right] \\ \left[y = -2\cos\left(\frac{\pi x}{2}\right), black \right] \\ [y = \sin(x) + 3, green] \end{array} \right], \left[\begin{array}{c} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{array} \right]$$

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TrigonometryExercise Answers for No.11440

$$Ans1 = \left[\sin(A) = \frac{5\sqrt{29}}{29}, \cos(A) = \frac{2\sqrt{29}}{29}, \tan(A) = \frac{5}{2}, \csc(A) = \frac{\sqrt{29}}{5}, \sec(A) = \frac{\sqrt{29}}{2}, \cot(A) = \frac{2}{5}\right], \quad \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{7\sqrt{85}}{85}, \cos(A) = \frac{6\sqrt{85}}{85}, \tan(A) = \frac{7}{6}, \csc(A) = \frac{\sqrt{85}}{7}, \sec(A) = \frac{\sqrt{85}}{6}, \cot(A) = \frac{6}{7}\right], \quad \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{1}{x}, \cos(A) = \frac{\sqrt{x^2-1}}{x}, \tan(A) = \frac{1}{\sqrt{x^2-1}}, \csc(A) = x, \sec(A) = \frac{x}{\sqrt{x^2-1}}, \cot(A) = \sqrt{x^2-1}\right]$$

$$Ans4 = \left[\sin(A) = \frac{x}{3}, \cos(A) = \frac{\sqrt{9-x^2}}{3}, \tan(A) = \frac{x}{\sqrt{9-x^2}}, \csc(A) = \frac{3}{x}, \sec(A) = \frac{3}{\sqrt{9-x^2}}, \cot(A) = \frac{\sqrt{9-x^2}}{x}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 4\sin(\theta), 2\pi, 4, [-4, 4]] \\ Ans.3 = \left[y = \sin(3\theta), \frac{2\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = -4\sin(6\theta), \frac{\pi}{3}, 4, [-4, 4]\right] \\ Ans.5 = \left[y = -4\sin\left(\frac{\theta}{6}\right), 12\pi, 4, [-4, 4]\right] \\ Ans.6 = \left[y = -\frac{1}{6}\cos(5\theta) - 1, \frac{2\pi}{5}, \frac{1}{6}, \left[\frac{-7}{6}, \frac{-5}{6}\right]\right] \\ Ans.7 = \left[y = -\frac{1}{2}\sin(6\pi\theta), \frac{1}{3}, \frac{1}{2}, \left[\frac{-1}{2}, \frac{1}{2}\right]\right] \\ Ans.8 = \left[y = -5\cos\left(\frac{\pi\theta}{4}\right) - 3, 8, 5, [-8, 2]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -2\cos\left(\frac{x}{2}\right), red\right] \\ \left[y = -\frac{1}{2}\sin\left(\frac{x}{3}\right) + 2, black\right] \\ \left[y = -\frac{1}{2}\cos\left(\frac{\pi x}{3}\right), green\right] \\ \left[y = \frac{5}{2}\sin\left(\frac{\pi x}{2}\right) + 3, blue\right] \\ [y = \sin(x) + 1, cyan] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.11466

$$Ans1 = \left[\sin(A) = \frac{3}{5}, \cos(A) = \frac{4}{5}, \tan(A) = \frac{3}{4}, \csc(A) = \frac{5}{3}, \sec(A) = \frac{5}{4}, \cot(A) = \frac{4}{3} \right], \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans2 = \left[\sin(A) = \frac{8}{9}, \cos(A) = \frac{\sqrt{17}}{9}, \tan(A) = \frac{8\sqrt{17}}{17}, \csc(A) = \frac{9}{8}, \sec(A) = \frac{9\sqrt{17}}{17}, \cot(A) = \frac{\sqrt{17}}{8} \right], \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans3 = \left[\sin(A) = \frac{3}{x}, \cos(A) = \frac{\sqrt{-9+x^2}}{x}, \tan(A) = \frac{3}{\sqrt{-9+x^2}}, \csc(A) = \frac{x}{3}, \sec(A) = \frac{x}{\sqrt{-9+x^2}}, \cot(A) = \frac{\sqrt{-9+x^2}}{3} \right]$$

$$Ans4 = \left[\sin(A) = \frac{\sqrt{x^2-16}}{x}, \cos(A) = \frac{4}{x}, \tan(A) = \frac{\sqrt{x^2-16}}{4}, \csc(A) = \frac{x}{\sqrt{x^2-16}}, \sec(A) = \frac{x}{4}, \cot(A) = \frac{4}{\sqrt{x^2-16}} \right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 2\cos(\theta), 2\pi, 2, [-2, 2]] \\ Ans.3 = \left[y = \cos(4\theta), \frac{\pi}{2}, 1, [-1, 1] \right] \\ Ans.4 = \left[y = -4\cos(3\theta), \frac{2\pi}{3}, 4, [-4, 4] \right] \\ Ans.5 = \left[y = -5\sin\left(\frac{\theta}{2}\right), 4\pi, 5, [-5, 5] \right] \\ Ans.6 = \left[y = \frac{1}{3}\cos(6\theta) + 4, \frac{\pi}{3}, \frac{1}{3}, \left[\frac{11}{3}, \frac{13}{3}\right] \right] \\ Ans.7 = \left[y = -\frac{1}{6}\sin(2\pi\theta), 1, \frac{1}{6}, \left[\frac{-1}{6}, \frac{1}{6}\right] \right] \\ Ans.8 = \left[y = -6\cos\left(\frac{\pi\theta}{5}\right) - 5, 10, 6, [-11, 1] \right] \end{bmatrix}, Ans6 = \begin{bmatrix} [y = \cos(x) - 2, cyan] \\ \left[y = 2\sin\left(\frac{\pi x}{3}\right), black \right] \\ \left[y = \frac{1}{2}\cos\left(\frac{x}{3}\right), blue \right] \\ \left[y = -\frac{5}{2}\sin\left(\frac{\pi x}{2}\right) + 4, green \right] \\ \left[y = -3\sin\left(\frac{x}{2}\right) - 2, red \right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.11863

$$Ans1 = \left[\sin(A) = \frac{5\sqrt{74}}{74}, \cos(A) = \frac{7\sqrt{74}}{74}, \tan(A) = \frac{5}{7}, \csc(A) = \frac{\sqrt{74}}{5}, \sec(A) = \frac{\sqrt{74}}{7}, \cot(A) = \frac{7}{5}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{\sqrt{55}}{8}, \cos(A) = \frac{3}{8}, \tan(A) = \frac{\sqrt{55}}{3}, \csc(A) = \frac{8\sqrt{55}}{55}, \sec(A) = \frac{8}{3}, \cot(A) = \frac{3\sqrt{55}}{55}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{x}{2}, \cos(A) = \frac{\sqrt{4-x^2}}{2}, \tan(A) = \frac{x}{\sqrt{4-x^2}}, \csc(A) = \frac{2}{x}, \sec(A) = \frac{2}{\sqrt{4-x^2}}, \cot(A) = \frac{\sqrt{4-x^2}}{x}\right]$$

$$Ans4 = \left[\sin(A) = \frac{1}{x}, \cos(A) = \frac{\sqrt{x^2-1}}{x}, \tan(A) = \frac{1}{\sqrt{x^2-1}}, \csc(A) = x, \sec(A) = \frac{x}{\sqrt{x^2-1}}, \cot(A) = \sqrt{x^2-1}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -2\cos(\theta), 2\pi, 2, [-2, 2]] \\ Ans.3 = \left[y = \sin(6\theta), \frac{\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = 6\cos(4\theta), \frac{\pi}{2}, 6, [-6, 6]\right] \\ Ans.5 = \left[y = 3\sin\left(\frac{\theta}{4}\right), 8\pi, 3, [-3, 3]\right] \\ Ans.6 = \left[y = \frac{1}{2}\cos(6\theta) + 2, \frac{\pi}{3}, \frac{1}{2}, \left[\frac{3}{2}, \frac{5}{2}\right]\right] \\ Ans.7 = \left[y = -\frac{1}{4}\cos\left(\frac{\pi\theta}{2}\right), 4, \frac{1}{4}, \left[\frac{-1}{4}, \frac{1}{4}\right]\right] \\ Ans.8 = \left[y = -3\sin(5\pi\theta) + 1, \frac{2}{5}, 3, [-2, 4]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = \frac{3}{2}\sin\left(\frac{x}{3}\right), cyan\right] \\ \left[y = 3\cos\left(\frac{x}{3}\right) + 3, blue\right] \\ [y = -\cos(x), green] \\ \left[y = -\frac{3}{2}\sin\left(\frac{\pi x}{2}\right), black\right] \\ \left[y = -\frac{3}{2}\cos(2\pi x) - 2, red\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.11967

$$Ans1 = \left[\sin(A) = \frac{5\sqrt{74}}{74}, \cos(A) = \frac{7\sqrt{74}}{74}, \tan(A) = \frac{5}{7}, \csc(A) = \frac{\sqrt{74}}{5}, \sec(A) = \frac{\sqrt{74}}{7}, \cot(A) = \frac{7}{5} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans2 = \left[\sin(A) = \frac{3}{5}, \cos(A) = \frac{4}{5}, \tan(A) = \frac{3}{4}, \csc(A) = \frac{5}{3}, \sec(A) = \frac{5}{4}, \cot(A) = \frac{4}{3} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans3 = \left[\sin(A) = x, \cos(A) = \sqrt{1 - x^2}, \tan(A) = \frac{x}{\sqrt{1 - x^2}}, \csc(A) = \frac{1}{x}, \sec(A) = \frac{1}{\sqrt{1 - x^2}}, \cot(A) = \frac{\sqrt{1 - x^2}}{x} \right]$$

$$Ans4 = \left[\sin(A) = \frac{x}{5}, \cos(A) = \frac{\sqrt{25 - x^2}}{5}, \tan(A) = \frac{x}{\sqrt{25 - x^2}}, \csc(A) = \frac{5}{x}, \sec(A) = \frac{5}{\sqrt{25 - x^2}}, \cot(A) = \frac{\sqrt{25 - x^2}}{x} \right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -3\cos(\theta), 2\pi, 3, [-3, 3]] \\ Ans.3 = \left[y = \sin(3\theta), \frac{2\pi}{3}, 1, [-1, 1] \right] \\ Ans.4 = \left[y = 2\cos(4\theta), \frac{\pi}{2}, 2, [-2, 2] \right] \\ Ans.5 = \left[y = \frac{1}{2}\cos(5\theta), \frac{2\pi}{5}, \frac{1}{2}, \left[\frac{-1}{2}, \frac{1}{2} \right] \right] \\ Ans.6 = \left[y = -2\cos\left(\frac{\theta}{4}\right) + 2, 8\pi, 2, [0, 4] \right] \\ Ans.7 = \left[y = -3\cos(4\pi\theta), \frac{1}{2}, 3, [-3, 3] \right] \\ Ans.8 = \left[y = -\frac{1}{2}\sin\left(\frac{\pi\theta}{6}\right) + 2, 12, \frac{1}{2}, \left[\frac{3}{2}, \frac{5}{2} \right] \right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -3\cos\left(\frac{x}{3}\right), green \right] \\ \left[y = \frac{1}{2}\sin\left(\frac{\pi x}{3}\right) + 2, red \right] \\ \left[y = 3\cos\left(\frac{x}{3}\right) - 4, blue \right] \\ \left[y = -2\sin\left(\frac{\pi x}{2}\right), cyan \right] \\ [y = \cos(x) - 2, black] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.13031

$$Ans1 = \left[\sin(A) = \frac{\sqrt{55}}{8}, \cos(A) = \frac{3}{8}, \tan(A) = \frac{\sqrt{55}}{3}, \csc(A) = \frac{8\sqrt{55}}{55}, \sec(A) = \frac{8}{3}, \cot(A) = \frac{3\sqrt{55}}{55} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans2 = \left[\sin(A) = \frac{8}{9}, \cos(A) = \frac{\sqrt{17}}{9}, \tan(A) = \frac{8\sqrt{17}}{17}, \csc(A) = \frac{9}{8}, \sec(A) = \frac{9\sqrt{17}}{17}, \cot(A) = \frac{\sqrt{17}}{8} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans3 = \left[\sin(A) = \frac{7}{x}, \cos(A) = \frac{\sqrt{x^2 - 49}}{x}, \tan(A) = \frac{7}{\sqrt{x^2 - 49}}, \csc(A) = \frac{x}{7}, \sec(A) = \frac{x}{\sqrt{x^2 - 49}}, \cot(A) = \frac{\sqrt{x^2 - 49}}{7} \right]$$

$$Ans4 = \left[\sin(A) = \frac{3}{\sqrt{9 + x^2}}, \cos(A) = \frac{x}{\sqrt{9 + x^2}}, \tan(A) = \frac{3}{x}, \csc(A) = \frac{\sqrt{9 + x^2}}{3}, \sec(A) = \frac{\sqrt{9 + x^2}}{x}, \cot(A) = \frac{x}{3} \right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -2\sin(\theta), 2\pi, 2, [-2, 2]] \\ Ans.3 = \left[y = \sin(5\theta), \frac{2\pi}{5}, 1, [-1, 1] \right] \\ Ans.4 = \left[y = -6\cos(5\theta), \frac{2\pi}{5}, 6, [-6, 6] \right] \\ Ans.5 = \left[y = \frac{1}{6}\cos(4\theta), \frac{\pi}{2}, \frac{1}{6}, \left[\frac{-1}{6}, \frac{1}{6} \right] \right] \\ Ans.6 = \left[y = -3\sin\left(\frac{\theta}{4}\right) - 4, 8\pi, 3, [-7, -1] \right] \\ Ans.7 = \left[y = -2\cos(6\pi\theta), \frac{1}{3}, 2, [-2, 2] \right] \\ Ans.8 = \left[y = -\frac{1}{6}\sin\left(\frac{\pi\theta}{5}\right) - 3, 10, \frac{1}{6}, \left[\frac{-19}{6}, \frac{-17}{6} \right] \right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -\frac{3}{2}\cos\left(\frac{\pi x}{2}\right) - 3, black \right] \\ \left[y = \frac{1}{2}\sin\left(\frac{x}{2}\right) - 4, blue \right] \\ \left[y = \frac{3}{2}\sin\left(\frac{\pi x}{3}\right), red \right] \\ [y = -\sin(x) - 3, cyan] \\ \left[y = \frac{5}{2}\cos(2x), green \right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.13093

$$Ans1 = \left[\sin(A) = \frac{7}{8}, \cos(A) = \frac{\sqrt{15}}{8}, \tan(A) = \frac{7\sqrt{15}}{15}, \csc(A) = \frac{8}{7}, \sec(A) = \frac{8\sqrt{15}}{15}, \cot(A) = \frac{\sqrt{15}}{7}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{4}{5}, \cos(A) = \frac{3}{5}, \tan(A) = \frac{4}{3}, \csc(A) = \frac{5}{4}, \sec(A) = \frac{5}{3}, \cot(A) = \frac{3}{4}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{1}{\sqrt{x^2+1}}, \cos(A) = \frac{x}{\sqrt{x^2+1}}, \tan(A) = \frac{1}{x}, \csc(A) = \sqrt{x^2+1}, \sec(A) = \frac{\sqrt{x^2+1}}{x}, \cot(A) = x\right]$$

$$Ans4 = \left[\sin(A) = \frac{6}{x}, \cos(A) = \frac{\sqrt{x^2-36}}{x}, \tan(A) = \frac{6}{\sqrt{x^2-36}}, \csc(A) = \frac{x}{6}, \sec(A) = \frac{x}{\sqrt{x^2-36}}, \cot(A) = \frac{\sqrt{x^2-36}}{6}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 5\sin(\theta), 2\pi, 5, [-5, 5]] \\ Ans.3 = \left[y = \cos(4\theta), \frac{\pi}{2}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = -3\sin(6\theta), \frac{\pi}{3}, 3, [-3, 3]\right] \\ Ans.5 = \left[y = -6\sin\left(\frac{\theta}{2}\right), 4\pi, 6, [-6, 6]\right] \\ Ans.6 = \left[y = \frac{1}{4}\cos(6\theta) - 5, \frac{\pi}{3}, \frac{1}{4}, \left[\frac{-21}{4}, \frac{-19}{4}\right]\right] \\ Ans.7 = \left[y = -6\sin(5\pi\theta), \frac{2}{5}, 6, [-6, 6]\right] \\ Ans.8 = \left[y = -\frac{1}{3}\cos\left(\frac{\pi\theta}{4}\right) + 4, 8, \frac{1}{3}, \left[\frac{11}{3}, \frac{13}{3}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} [y = -3\cos(2\pi x) - 2, cyan] \\ \left[y = -3\cos\left(\frac{x}{3}\right) + 4, red\right] \\ \left[y = -\frac{5}{2}\cos\left(\frac{x}{3}\right), black\right] \\ [y = \sin(x) - 2, blue] \\ \left[y = \frac{3}{2}\sin\left(\frac{\pi x}{2}\right), green\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

TrigonometryExercise Answers for No.13163

$$Ans1 = \left[\sin(A) = \frac{7\sqrt{74}}{74}, \cos(A) = \frac{5\sqrt{74}}{74}, \tan(A) = \frac{7}{5}, \csc(A) = \frac{\sqrt{74}}{7}, \sec(A) = \frac{\sqrt{74}}{5}, \cot(A) = \frac{5}{7} \right], \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans2 = \left[\sin(A) = \frac{3}{4}, \cos(A) = \frac{\sqrt{7}}{4}, \tan(A) = \frac{3\sqrt{7}}{7}, \csc(A) = \frac{4}{3}, \sec(A) = \frac{4\sqrt{7}}{7}, \cot(A) = \frac{\sqrt{7}}{3} \right], \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans3 = \left[\sin(A) = \frac{7}{x}, \cos(A) = \frac{\sqrt{x^2-49}}{x}, \tan(A) = \frac{7}{\sqrt{x^2-49}}, \csc(A) = \frac{x}{7}, \sec(A) = \frac{x}{\sqrt{x^2-49}}, \cot(A) = \frac{\sqrt{x^2-49}}{7} \right]$$

$$Ans4 = \left[\sin(A) = \frac{\sqrt{x^2-49}}{x}, \cos(A) = \frac{7}{x}, \tan(A) = \frac{\sqrt{x^2-49}}{7}, \csc(A) = \frac{x}{\sqrt{x^2-49}}, \sec(A) = \frac{x}{7}, \cot(A) = \frac{7}{\sqrt{x^2-49}} \right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 6\sin(\theta), 2\pi, 6, [-6, 6]] \\ Ans.3 = [y = \sin(2\theta), \pi, 1, [-1, 1]] \\ Ans.4 = \left[y = -4\sin(5\theta), \frac{2\pi}{5}, 4, [-4, 4] \right] \\ Ans.5 = \left[y = -\frac{1}{3}\cos(2\theta), \pi, \frac{1}{3}, \left[\frac{-1}{3}, \frac{1}{3} \right] \right] \\ Ans.6 = \left[y = 5\cos\left(\frac{\theta}{6}\right) + 2, 12\pi, 5, [-3, 7] \right] \\ Ans.7 = [y = -4\cos(2\pi\theta), 1, 4, [-4, 4]] \\ Ans.8 = \left[y = -\frac{1}{4}\sin\left(\frac{\pi\theta}{5}\right) + 5, 10, \frac{1}{4}, \left[\frac{19}{4}, \frac{21}{4} \right] \right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} [y = 3\sin(2\pi x) - 4, cyan] \\ \left[y = \frac{1}{2}\cos\left(\frac{x}{2}\right) + 2, black \right] \\ [y = \sin(x), red] \\ [y = -2\cos(2\pi x), blue] \\ \left[y = -\frac{1}{2}\sin(2x), green \right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.13403

$$Ans1 = \left[\sin(A) = \frac{2\sqrt{13}}{13}, \cos(A) = \frac{3\sqrt{13}}{13}, \tan(A) = \frac{2}{3}, \csc(A) = \frac{\sqrt{13}}{2}, \sec(A) = \frac{\sqrt{13}}{3}, \cot(A) = \frac{3}{2}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{3}{8}, \cos(A) = \frac{\sqrt{55}}{8}, \tan(A) = \frac{3\sqrt{55}}{55}, \csc(A) = \frac{8}{3}, \sec(A) = \frac{8\sqrt{55}}{55}, \cot(A) = \frac{\sqrt{55}}{3}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{\sqrt{9-x^2}}{3}, \cos(A) = \frac{x}{3}, \tan(A) = \frac{\sqrt{9-x^2}}{x}, \csc(A) = \frac{3}{\sqrt{9-x^2}}, \sec(A) = \frac{3}{x}, \cot(A) = \frac{x}{\sqrt{9-x^2}}\right]$$

$$Ans4 = \left[\sin(A) = \frac{x}{\sqrt{4+x^2}}, \cos(A) = \frac{2}{\sqrt{4+x^2}}, \tan(A) = \frac{x}{2}, \csc(A) = \frac{\sqrt{4+x^2}}{x}, \sec(A) = \frac{\sqrt{4+x^2}}{2}, \cot(A) = \frac{2}{x}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -5\sin(\theta), 2\pi, 5, [-5, 5]] \\ Ans.3 = [y = \sin(2\theta), \pi, 1, [-1, 1]] \\ Ans.4 = \left[y = -5\cos(3\theta), \frac{2\pi}{3}, 5, [-5, 5]\right] \\ Ans.5 = \left[y = -6\sin\left(\frac{\theta}{4}\right), 8\pi, 6, [-6, 6]\right] \\ Ans.6 = \left[y = -\frac{1}{2}\cos(4\theta) - 5, \frac{\pi}{2}, \frac{1}{2}, \left[\frac{-11}{2}, \frac{-9}{2}\right]\right] \\ Ans.7 = \left[y = -\frac{1}{2}\cos(5\pi\theta), \frac{2}{5}, \frac{1}{2}, \left[\frac{-1}{2}, \frac{1}{2}\right]\right] \\ Ans.8 = \left[y = -2\cos\left(\frac{\pi\theta}{3}\right) + 2, 6, 2, [0, 4]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -\frac{3}{2}\cos\left(\frac{x}{2}\right) + 2, blue\right] \\ \left[y = \frac{3}{2}\sin\left(\frac{\pi x}{2}\right), red\right] \\ \left[y = \frac{1}{2}\sin\left(\frac{x}{2}\right), cyan\right] \\ [y = -\sin(x) - 1, black] \\ \left[y = -\frac{5}{2}\cos\left(\frac{\pi x}{2}\right) - 2, green\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.13459

$$Ans1 = \left[\sin(A) = \frac{8\sqrt{89}}{89}, \cos(A) = \frac{5\sqrt{89}}{89}, \tan(A) = \frac{8}{5}, \csc(A) = \frac{\sqrt{89}}{8}, \sec(A) = \frac{\sqrt{89}}{5}, \cot(A) = \frac{5}{8}\right], \quad \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{\sqrt{13}}{7}, \cos(A) = \frac{6}{7}, \tan(A) = \frac{\sqrt{13}}{6}, \csc(A) = \frac{7\sqrt{13}}{13}, \sec(A) = \frac{7}{6}, \cot(A) = \frac{6\sqrt{13}}{13}\right], \quad \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{x}{7}, \cos(A) = \frac{\sqrt{49-x^2}}{7}, \tan(A) = \frac{x}{\sqrt{49-x^2}}, \csc(A) = \frac{7}{x}, \sec(A) = \frac{7}{\sqrt{49-x^2}}, \cot(A) = \frac{\sqrt{49-x^2}}{x}\right]$$

$$Ans4 = \left[\sin(A) = \frac{x}{\sqrt{x^2+16}}, \cos(A) = \frac{4}{\sqrt{x^2+16}}, \tan(A) = \frac{x}{4}, \csc(A) = \frac{\sqrt{x^2+16}}{x}, \sec(A) = \frac{\sqrt{x^2+16}}{4}, \cot(A) = \frac{4}{x}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 4\sin(\theta), 2\pi, 4, [-4, 4]] \\ Ans.3 = [y = \sin(2\theta), \pi, 1, [-1, 1]] \\ Ans.4 = \left[y = -5\cos(3\theta), \frac{2\pi}{3}, 5, [-5, 5]\right] \\ Ans.5 = \left[y = 2\cos\left(\frac{\theta}{6}\right), 12\pi, 2, [-2, 2]\right] \\ Ans.6 = \left[y = -\frac{1}{2}\sin(3\theta) - 2, \frac{2\pi}{3}, \frac{1}{2}, \left[\frac{-5}{2}, \frac{-3}{2}\right]\right] \\ Ans.7 = \left[y = -5\cos\left(\frac{\pi\theta}{2}\right), 4, 5, [-5, 5]\right] \\ Ans.8 = \left[y = -\frac{1}{4}\cos(3\pi\theta) - 3, \frac{2}{3}, \frac{1}{4}, \left[\frac{-13}{4}, \frac{-11}{4}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -\frac{3}{2}\sin\left(\frac{x}{3}\right), green\right] \\ \left[y = \frac{5}{2}\sin\left(\frac{\pi x}{3}\right) + 4, blue\right] \\ [y = -\sin(x) - 3, red] \\ \left[y = \frac{5}{2}\cos(2x) + 3, cyan\right] \\ \left[y = -\frac{1}{2}\cos\left(\frac{\pi x}{3}\right), black\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.13581

$$Ans1 = \left[\sin(A) = \frac{7\sqrt{65}}{65}, \cos(A) = \frac{4\sqrt{65}}{65}, \tan(A) = \frac{7}{4}, \csc(A) = \frac{\sqrt{65}}{7}, \sec(A) = \frac{\sqrt{65}}{4}, \cot(A) = \frac{4}{7}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{3}{7}, \cos(A) = \frac{2\sqrt{10}}{7}, \tan(A) = \frac{3\sqrt{10}}{20}, \csc(A) = \frac{7}{3}, \sec(A) = \frac{7\sqrt{10}}{20}, \cot(A) = \frac{2\sqrt{10}}{3}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{\sqrt{9-x^2}}{3}, \cos(A) = \frac{x}{3}, \tan(A) = \frac{\sqrt{9-x^2}}{x}, \csc(A) = \frac{3}{\sqrt{9-x^2}}, \sec(A) = \frac{3}{x}, \cot(A) = \frac{x}{\sqrt{9-x^2}}\right]$$

$$Ans4 = \left[\sin(A) = \frac{\sqrt{9-x^2}}{3}, \cos(A) = \frac{x}{3}, \tan(A) = \frac{\sqrt{9-x^2}}{x}, \csc(A) = \frac{3}{\sqrt{9-x^2}}, \sec(A) = \frac{3}{x}, \cot(A) = \frac{x}{\sqrt{9-x^2}}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -4\cos(\theta), 2\pi, 4, [-4, 4]] \\ Ans.3 = \left[y = \sin(3\theta), \frac{2\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = -6\cos(3\theta), \frac{2\pi}{3}, 6, [-6, 6]\right] \\ Ans.5 = \left[y = -6\sin\left(\frac{\theta}{5}\right), 10\pi, 6, [-6, 6]\right] \\ Ans.6 = \left[y = \frac{1}{2}\cos(5\theta) - 5, \frac{2\pi}{5}, \frac{1}{2}, \left[\frac{-11}{2}, \frac{-9}{2}\right]\right] \\ Ans.7 = \left[y = -5\sin(4\pi\theta), \frac{1}{2}, 5, [-5, 5]\right] \\ Ans.8 = \left[y = -\frac{1}{5}\cos\left(\frac{\pi\theta}{4}\right) + 2, 8, \frac{1}{5}, \left[\frac{9}{5}, \frac{11}{5}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = \frac{5}{2}\sin\left(\frac{\pi x}{3}\right), green\right] \\ [y = -3\cos(2x), blue] \\ [y = \cos(x) + 2, red] \\ \left[y = -\frac{1}{2}\sin(2x) - 3, black\right] \\ \left[y = -2\sin\left(\frac{\pi x}{2}\right) + 2, cyan\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.13668

$$Ans1 = \left[\sin(A) = \frac{2}{7}, \cos(A) = \frac{3\sqrt{5}}{7}, \tan(A) = \frac{2\sqrt{5}}{15}, \csc(A) = \frac{7}{2}, \sec(A) = \frac{7\sqrt{5}}{15}, \cot(A) = \frac{3\sqrt{5}}{2}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{4}{5}, \cos(A) = \frac{3}{5}, \tan(A) = \frac{4}{3}, \csc(A) = \frac{5}{4}, \sec(A) = \frac{5}{3}, \cot(A) = \frac{3}{4}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{\sqrt{36 - x^2}}{6}, \cos(A) = \frac{x}{6}, \tan(A) = \frac{\sqrt{36 - x^2}}{x}, \csc(A) = \frac{6}{\sqrt{36 - x^2}}, \sec(A) = \frac{6}{x}, \cot(A) = \frac{x}{\sqrt{36 - x^2}}\right]$$

$$Ans4 = \left[\sin(A) = \frac{\sqrt{x^2 - 36}}{x}, \cos(A) = \frac{6}{x}, \tan(A) = \frac{\sqrt{x^2 - 36}}{6}, \csc(A) = \frac{x}{\sqrt{x^2 - 36}}, \sec(A) = \frac{x}{6}, \cot(A) = \frac{6}{\sqrt{x^2 - 36}}\right]$$

$$Ans5 = \left[\begin{array}{c} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -5\sin(\theta), 2\pi, 5, [-5, 5]] \\ Ans.3 = \left[y = \sin(6\theta), \frac{\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = -6\sin(5\theta), \frac{2\pi}{5}, 6, [-6, 6]\right] \\ Ans.5 = \left[y = 2\sin\left(\frac{\theta}{6}\right), 12\pi, 2, [-2, 2]\right] \\ Ans.6 = \left[y = \frac{1}{5}\sin(3\theta) + 2, \frac{2\pi}{3}, \frac{1}{5}, \left[\frac{9}{5}, \frac{11}{5}\right]\right] \\ Ans.7 = \left[y = -\frac{1}{2}\cos\left(\frac{\pi\theta}{4}\right), 8, \frac{1}{2}, \left[\frac{-1}{2}, \frac{1}{2}\right]\right] \\ Ans.8 = \left[y = -6\sin(3\pi\theta) + 4, \frac{2}{3}, 6, [-2, 10]\right] \end{array}\right], \quad Ans6 = \left[\begin{array}{c} \left[y = -2\cos\left(\frac{x}{2}\right), blue\right] \\ \left[y = \frac{5}{2}\sin\left(\frac{x}{2}\right) - 3, green\right] \\ [y = -\cos(x) + 2, cyan] \\ \left[y = 2\cos\left(\frac{\pi x}{2}\right) + 3, red\right] \\ \left[y = \frac{1}{2}\sin(2\pi x), black\right] \end{array}\right], \left[\begin{array}{c} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{array}\right]$$

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TrigonometryExercise Answers for No.13716

$$Ans1 = \left[\sin(A) = \frac{5\sqrt{74}}{74}, \cos(A) = \frac{7\sqrt{74}}{74}, \tan(A) = \frac{5}{7}, \csc(A) = \frac{\sqrt{74}}{5}, \sec(A) = \frac{\sqrt{74}}{7}, \cot(A) = \frac{7}{5}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{\sqrt{65}}{9}, \cos(A) = \frac{4}{9}, \tan(A) = \frac{\sqrt{65}}{4}, \csc(A) = \frac{9\sqrt{65}}{65}, \sec(A) = \frac{9}{4}, \cot(A) = \frac{4\sqrt{65}}{65}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{x}{5}, \cos(A) = \frac{\sqrt{25-x^2}}{5}, \tan(A) = \frac{x}{\sqrt{25-x^2}}, \csc(A) = \frac{5}{x}, \sec(A) = \frac{5}{\sqrt{25-x^2}}, \cot(A) = \frac{\sqrt{25-x^2}}{x}\right]$$

$$Ans4 = \left[\sin(A) = \frac{5}{x}, \cos(A) = \frac{\sqrt{x^2-25}}{x}, \tan(A) = \frac{5}{\sqrt{x^2-25}}, \csc(A) = \frac{x}{5}, \sec(A) = \frac{x}{\sqrt{x^2-25}}, \cot(A) = \frac{\sqrt{x^2-25}}{5}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 5\sin(\theta), 2\pi, 5, [-5, 5]] \\ Ans.3 = [y = \sin(2\theta), \pi, 1, [-1, 1]] \\ Ans.4 = \left[y = -4\sin(5\theta), \frac{2\pi}{5}, 4, [-4, 4]\right] \\ Ans.5 = \left[y = -2\sin\left(\frac{\theta}{5}\right), 10\pi, 2, [-2, 2]\right] \\ Ans.6 = \left[y = \frac{1}{3}\cos(4\theta) - 1, \frac{\pi}{2}, \frac{1}{3}, \left[\frac{-4}{3}, \frac{-2}{3}\right]\right] \\ Ans.7 = \left[y = -6\cos\left(\frac{\pi\theta}{3}\right), 6, 6, [-6, 6]\right] \\ Ans.8 = \left[y = -\frac{1}{5}\sin(3\pi\theta) + 5, \frac{2}{3}, \frac{1}{5}, \left[\frac{24}{5}, \frac{26}{5}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = \frac{1}{2}\sin\left(\frac{x}{3}\right) - 2, blue\right] \\ [y = -\cos(x) + 2, black] \\ \left[y = 2\cos\left(\frac{x}{3}\right), cyan\right] \\ \left[y = -\frac{3}{2}\sin\left(\frac{\pi x}{2}\right) + 4, green\right] \\ [y = -3\sin(2\pi x), red] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

TrigonometryExercise Answers for No.13720

$$Ans1 = \left[\sin(A) = \frac{3}{5}, \cos(A) = \frac{4}{5}, \tan(A) = \frac{3}{4}, \csc(A) = \frac{5}{3}, \sec(A) = \frac{5}{4}, \cot(A) = \frac{4}{3}\right], \left[\begin{array}{c} \sqrt{:)} \\ :(\end{array}\right]$$

$$Ans2 = \left[\sin(A) = \frac{3}{4}, \cos(A) = \frac{\sqrt{7}}{4}, \tan(A) = \frac{3\sqrt{7}}{7}, \csc(A) = \frac{4}{3}, \sec(A) = \frac{4\sqrt{7}}{7}, \cot(A) = \frac{\sqrt{7}}{3}\right], \left[\begin{array}{c} \sqrt{:)} \\ :(\end{array}\right]$$

$$Ans3 = \left[\sin(A) = \frac{x}{7}, \cos(A) = \frac{\sqrt{49 - x^2}}{7}, \tan(A) = \frac{x}{\sqrt{49 - x^2}}, \csc(A) = \frac{7}{x}, \sec(A) = \frac{7}{\sqrt{49 - x^2}}, \cot(A) = \frac{\sqrt{49 - x^2}}{x}\right]$$

$$Ans4 = \left[\sin(A) = \frac{x}{\sqrt{49 + x^2}}, \cos(A) = \frac{7}{\sqrt{49 + x^2}}, \tan(A) = \frac{x}{7}, \csc(A) = \frac{\sqrt{49 + x^2}}{x}, \sec(A) = \frac{\sqrt{49 + x^2}}{7}, \cot(A) = \frac{7}{x}\right]$$

$$Ans5 = \left[\begin{array}{c} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 6\cos(\theta), 2\pi, 6, [-6, 6]] \\ Ans.3 = \left[y = \cos(6\theta), \frac{\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = -3\cos(5\theta), \frac{2\pi}{5}, 3, [-3, 3]\right] \\ Ans.5 = \left[y = 4\sin\left(\frac{\theta}{6}\right), 12\pi, 4, [-4, 4]\right] \\ Ans.6 = \left[y = \frac{1}{2}\cos(5\theta) - 1, \frac{2\pi}{5}, \frac{1}{2}, \left[\frac{-3}{2}, \frac{-1}{2}\right]\right] \\ Ans.7 = \left[y = -2\sin\left(\frac{\pi\theta}{6}\right), 12, 2, [-2, 2]\right] \\ Ans.8 = \left[y = -\frac{1}{4}\sin(3\pi\theta) - 2, \frac{2}{3}, \frac{1}{4}, \left[\frac{-9}{4}, \frac{-7}{4}\right]\right] \end{array}\right], Ans6 = \left[\begin{array}{c} \left[y = -\frac{5}{2}\cos\left(\frac{\pi x}{2}\right), red\right] \\ \left[y = \frac{1}{2}\cos(2x), green\right] \\ [y = \sin(x), black] \\ \left[y = -\frac{5}{2}\cos\left(\frac{\pi x}{2}\right) - 4, cyan\right] \\ \left[y = -\frac{3}{2}\sin(2x) - 3, blue\right] \end{array}\right], \left[\begin{array}{c} \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\end{array}\right]$$

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TrigonometryExercise Answers for No.14307

$$Ans1 = \left[\sin(A) = \frac{8\sqrt{89}}{89}, \cos(A) = \frac{5\sqrt{89}}{89}, \tan(A) = \frac{8}{5}, \csc(A) = \frac{\sqrt{89}}{8}, \sec(A) = \frac{\sqrt{89}}{5}, \cot(A) = \frac{5}{8}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{2\sqrt{29}}{29}, \cos(A) = \frac{5\sqrt{29}}{29}, \tan(A) = \frac{2}{5}, \csc(A) = \frac{\sqrt{29}}{2}, \sec(A) = \frac{\sqrt{29}}{5}, \cot(A) = \frac{5}{2}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{4}{x}, \cos(A) = \frac{\sqrt{x^2-16}}{x}, \tan(A) = \frac{4}{\sqrt{x^2-16}}, \csc(A) = \frac{x}{4}, \sec(A) = \frac{x}{\sqrt{x^2-16}}, \cot(A) = \frac{\sqrt{x^2-16}}{4}\right]$$

$$Ans4 = \left[\sin(A) = \frac{x}{3}, \cos(A) = \frac{\sqrt{9-x^2}}{3}, \tan(A) = \frac{x}{\sqrt{9-x^2}}, \csc(A) = \frac{3}{x}, \sec(A) = \frac{3}{\sqrt{9-x^2}}, \cot(A) = \frac{\sqrt{9-x^2}}{x}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -6\sin(\theta), 2\pi, 6, [-6, 6]] \\ Ans.3 = \left[y = \sin(5\theta), \frac{2\pi}{5}, 1, [-1, 1]\right] \\ Ans.4 = [y = -3\sin(2\theta), \pi, 3, [-3, 3]] \\ Ans.5 = \left[y = 6\sin\left(\frac{\theta}{3}\right), 6\pi, 6, [-6, 6]\right] \\ Ans.6 = \left[y = -\frac{1}{2}\sin(6\theta) + 2, \frac{\pi}{3}, \frac{1}{2}, \left[\frac{3}{2}, \frac{5}{2}\right]\right] \\ Ans.7 = \left[y = -2\sin\left(\frac{\pi\theta}{6}\right), 12, 2, [-2, 2]\right] \\ Ans.8 = \left[y = -\frac{1}{3}\sin(6\pi\theta) - 5, \frac{1}{3}, \frac{1}{3}, \left[\frac{-16}{3}, \frac{-14}{3}\right]\right] \end{bmatrix}, Ans6 = \begin{bmatrix} \left[y = \frac{3}{2}\cos\left(\frac{x}{2}\right), red\right] \\ \left[y = \frac{5}{2}\sin(2\pi x), cyan\right] \\ [y = -\sin(x) + 1, green] \\ [y = -3\cos(2x) + 4, black] \\ \left[y = \frac{1}{2}\sin\left(\frac{\pi x}{3}\right) - 2, blue\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.14598

$$Ans1 = \left[\sin(A) = \frac{3}{5}, \cos(A) = \frac{4}{5}, \tan(A) = \frac{3}{4}, \csc(A) = \frac{5}{3}, \sec(A) = \frac{5}{4}, \cot(A) = \frac{4}{3}\right], \left[\begin{matrix}\sqrt{:)} \\ :(\end{matrix}\right]$$

$$Ans2 = \left[\sin(A) = \frac{4\sqrt{65}}{65}, \cos(A) = \frac{7\sqrt{65}}{65}, \tan(A) = \frac{4}{7}, \csc(A) = \frac{\sqrt{65}}{4}, \sec(A) = \frac{\sqrt{65}}{7}, \cot(A) = \frac{7}{4}\right], \left[\begin{matrix}\sqrt{:)} \\ :(\end{matrix}\right]$$

$$Ans3 = \left[\sin(A) = \frac{\sqrt{9-x^2}}{3}, \cos(A) = \frac{x}{3}, \tan(A) = \frac{\sqrt{9-x^2}}{x}, \csc(A) = \frac{3}{\sqrt{9-x^2}}, \sec(A) = \frac{3}{x}, \cot(A) = \frac{x}{\sqrt{9-x^2}}\right]$$

$$Ans4 = \left[\sin(A) = \frac{\sqrt{x^2-4}}{x}, \cos(A) = \frac{2}{x}, \tan(A) = \frac{\sqrt{x^2-4}}{2}, \csc(A) = \frac{x}{\sqrt{x^2-4}}, \sec(A) = \frac{x}{2}, \cot(A) = \frac{2}{\sqrt{x^2-4}}\right]$$

$$Ans5 = \left[\begin{matrix}
Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\
Ans.2 = [y = 6\cos(\theta), 2\pi, 6, [-6, 6]] \\
Ans.3 = \left[y = \sin(6\theta), \frac{\pi}{3}, 1, [-1, 1]\right] \\
Ans.4 = \left[y = -5\cos(3\theta), \frac{2\pi}{3}, 5, [-5, 5]\right] \\
Ans.5 = \left[y = -4\sin\left(\frac{\theta}{6}\right), 12\pi, 4, [-4, 4]\right] \\
Ans.6 = \left[y = -\frac{1}{4}\sin(5\theta) + 1, \frac{2\pi}{5}, \frac{1}{4}, \left[\frac{3}{4}, \frac{5}{4}\right]\right] \\
Ans.7 = \left[y = -\frac{1}{3}\cos(6\pi\theta), \frac{1}{3}, \frac{1}{3}, \left[\frac{-1}{3}, \frac{1}{3}\right]\right] \\
Ans.8 = \left[y = -2\cos\left(\frac{\pi\theta}{6}\right) - 4, 12, 2, [-6, -2]\right]
\end{matrix}\right], \quad Ans6 = \left[\begin{matrix}
\left[y = 3\cos\left(\frac{\pi x}{2}\right) - 2, red\right] \\
\left[y = -\frac{1}{2}\cos(2x) + 3, blue\right] \\
\left[y = -\frac{3}{2}\sin\left(\frac{x}{3}\right), cyan\right] \\
[y = -\cos(x) + 1, black] \\
\left[y = \frac{3}{2}\sin(2\pi x), green\right]
\end{matrix}\right], \left[\begin{matrix}
\underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(
\end{matrix}\right]$$

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TrigonometryExercise Answers for No.14624

$$Ans1 = \left[\sin(A) = \frac{3\sqrt{73}}{73}, \cos(A) = \frac{8\sqrt{73}}{73}, \tan(A) = \frac{3}{8}, \csc(A) = \frac{\sqrt{73}}{3}, \sec(A) = \frac{\sqrt{73}}{8}, \cot(A) = \frac{8}{3}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{6\sqrt{61}}{61}, \cos(A) = \frac{5\sqrt{61}}{61}, \tan(A) = \frac{6}{5}, \csc(A) = \frac{\sqrt{61}}{6}, \sec(A) = \frac{\sqrt{61}}{5}, \cot(A) = \frac{5}{6}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{6}{x}, \cos(A) = \frac{\sqrt{x^2-36}}{x}, \tan(A) = \frac{6}{\sqrt{x^2-36}}, \csc(A) = \frac{x}{6}, \sec(A) = \frac{x}{\sqrt{x^2-36}}, \cot(A) = \frac{\sqrt{x^2-36}}{6}\right]$$

$$Ans4 = \left[\sin(A) = \frac{5}{x}, \cos(A) = \frac{\sqrt{x^2-25}}{x}, \tan(A) = \frac{5}{\sqrt{x^2-25}}, \csc(A) = \frac{x}{5}, \sec(A) = \frac{x}{\sqrt{x^2-25}}, \cot(A) = \frac{\sqrt{x^2-25}}{5}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 3\cos(\theta), 2\pi, 3, [-3, 3]] \\ Ans.3 = \left[y = \sin(6\theta), \frac{\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = 4\sin(3\theta), \frac{2\pi}{3}, 4, [-4, 4]\right] \\ Ans.5 = \left[y = 2\cos\left(\frac{\theta}{3}\right), 6\pi, 2, [-2, 2]\right] \\ Ans.6 = \left[y = \frac{1}{5}\cos(6\theta) - 1, \frac{\pi}{3}, \frac{1}{5}, \left[\frac{-6}{5}, \frac{-4}{5}\right]\right] \\ Ans.7 = \left[y = -\frac{1}{3}\sin\left(\frac{\pi\theta}{2}\right), 4, \frac{1}{3}, \left[\frac{-1}{3}, \frac{1}{3}\right]\right] \\ Ans.8 = [y = -4\cos(2\pi\theta) + 1, 1, 4, [-3, 5]] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -2\cos\left(\frac{x}{3}\right), cyan\right] \\ [y = -2\sin(2\pi x) - 2, blue] \\ [y = \cos(x) - 1, black] \\ [y = 2\cos(2\pi x), red] \\ \left[y = -\frac{3}{2}\sin(2x) + 3, green\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.14641

$$Ans1 = \left[\sin(A) = \frac{2}{3}, \cos(A) = \frac{\sqrt{5}}{3}, \tan(A) = \frac{2\sqrt{5}}{5}, \csc(A) = \frac{3}{2}, \sec(A) = \frac{3\sqrt{5}}{5}, \cot(A) = \frac{\sqrt{5}}{2}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{\sqrt{17}}{9}, \cos(A) = \frac{8}{9}, \tan(A) = \frac{\sqrt{17}}{8}, \csc(A) = \frac{9\sqrt{17}}{17}, \sec(A) = \frac{9}{8}, \cot(A) = \frac{8\sqrt{17}}{17}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{\sqrt{25-x^2}}{5}, \cos(A) = \frac{x}{5}, \tan(A) = \frac{\sqrt{25-x^2}}{x}, \csc(A) = \frac{5}{\sqrt{25-x^2}}, \sec(A) = \frac{5}{x}, \cot(A) = \frac{x}{\sqrt{25-x^2}}\right]$$

$$Ans4 = \left[\sin(A) = \frac{5}{\sqrt{25+x^2}}, \cos(A) = \frac{x}{\sqrt{25+x^2}}, \tan(A) = \frac{5}{x}, \csc(A) = \frac{\sqrt{25+x^2}}{5}, \sec(A) = \frac{\sqrt{25+x^2}}{x}, \cot(A) = \frac{x}{5}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 6\sin(\theta), 2\pi, 6, [-6, 6]] \\ Ans.3 = [y = \sin(2\theta), \pi, 1, [-1, 1]] \\ Ans.4 = \left[y = 4\cos(6\theta), \frac{\pi}{3}, 4, [-4, 4]\right] \\ Ans.5 = \left[y = -\frac{1}{5}\cos(3\theta), \frac{2\pi}{3}, \frac{1}{5}, \left[\frac{-1}{5}, \frac{1}{5}\right]\right] \\ Ans.6 = \left[y = 4\sin\left(\frac{\theta}{6}\right) - 2, 12\pi, 4, [-6, 2]\right] \\ Ans.7 = \left[y = -5\sin\left(\frac{\pi\theta}{3}\right), 6, 5, [-5, 5]\right] \\ Ans.8 = \left[y = -\frac{1}{2}\cos(5\pi\theta) - 2, \frac{2}{5}, \frac{1}{2}, \left[\frac{-5}{2}, \frac{-3}{2}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} [y = \sin(x), black] \\ [y = 2\cos(2x), blue] \\ \left[y = -2\sin\left(\frac{\pi x}{3}\right), green\right] \\ \left[y = -\frac{1}{2}\sin\left(\frac{\pi x}{3}\right) - 2, red\right] \\ \left[y = -\frac{1}{2}\cos\left(\frac{x}{3}\right) + 4, cyan\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.14681

$$Ans1 = \left[\sin(A) = \frac{4\sqrt{41}}{41}, \cos(A) = \frac{5\sqrt{41}}{41}, \tan(A) = \frac{4}{5}, \csc(A) = \frac{\sqrt{41}}{4}, \sec(A) = \frac{\sqrt{41}}{5}, \cot(A) = \frac{5}{4}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{4}{5}, \cos(A) = \frac{3}{5}, \tan(A) = \frac{4}{3}, \csc(A) = \frac{5}{4}, \sec(A) = \frac{5}{3}, \cot(A) = \frac{3}{4}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{\sqrt{x^2-36}}{x}, \cos(A) = \frac{6}{x}, \tan(A) = \frac{\sqrt{x^2-36}}{6}, \csc(A) = \frac{x}{\sqrt{x^2-36}}, \sec(A) = \frac{x}{6}, \cot(A) = \frac{6}{\sqrt{x^2-36}}\right]$$

$$Ans4 = \left[\sin(A) = \frac{x}{\sqrt{36+x^2}}, \cos(A) = \frac{6}{\sqrt{36+x^2}}, \tan(A) = \frac{x}{6}, \csc(A) = \frac{\sqrt{36+x^2}}{x}, \sec(A) = \frac{\sqrt{36+x^2}}{6}, \cot(A) = \frac{6}{x}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 5\sin(\theta), 2\pi, 5, [-5, 5]] \\ Ans.3 = [y = \cos(2\theta), \pi, 1, [-1, 1]] \\ Ans.4 = [y = -6\sin(2\theta), \pi, 6, [-6, 6]] \\ Ans.5 = \left[y = -\frac{1}{4}\sin(3\theta), \frac{2\pi}{3}, \frac{1}{4}, \left[\frac{-1}{4}, \frac{1}{4}\right]\right] \\ Ans.6 = \left[y = -3\cos\left(\frac{\theta}{5}\right) - 3, 10\pi, 3, [-6, 0]\right] \\ Ans.7 = \left[y = -4\cos\left(\frac{\pi\theta}{3}\right), 6, 4, [-4, 4]\right] \\ Ans.8 = \left[y = -\frac{1}{6}\sin(4\pi\theta) + 1, \frac{1}{2}, \frac{1}{6}, \left[\frac{5}{6}, \frac{7}{6}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = 3\cos\left(\frac{x}{2}\right) - 3, \mathit{blue}\right] \\ \left[y = \frac{3}{2}\sin\left(\frac{\pi x}{3}\right), \mathit{black}\right] \\ [y = \cos(x), \mathit{red}] \\ \left[y = -\frac{5}{2}\cos\left(\frac{\pi x}{3}\right) + 2, \mathit{green}\right] \\ \left[y = -3\sin\left(\frac{x}{3}\right), \mathit{cyan}\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.14688

$$Ans1=\left[\sin(A)=\frac{6\sqrt{85}}{85},\ \cos(A)=\frac{7\sqrt{85}}{85},\ \tan(A)=\frac{6}{7},\ \csc(A)=\frac{\sqrt{85}}{6},\ \sec(A)=\frac{\sqrt{85}}{7},\ \cot(A)=\frac{7}{6}\right],\quad ,\left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2=\left[\sin(A)=\frac{2\sqrt{10}}{7},\ \cos(A)=\frac{3}{7},\ \tan(A)=\frac{2\sqrt{10}}{3},\ \csc(A)=\frac{7\sqrt{10}}{20},\ \sec(A)=\frac{7}{3},\ \cot(A)=\frac{3\sqrt{10}}{20}\right],\quad ,\left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3=\left[\sin(A)=\frac{\sqrt{36-x^2}}{6},\ \cos(A)=\frac{x}{6},\ \tan(A)=\frac{\sqrt{36-x^2}}{x},\ \csc(A)=\frac{6}{\sqrt{36-x^2}},\ \sec(A)=\frac{6}{x},\ \cot(A)=\frac{x}{\sqrt{36-x^2}}\right]$$

$$Ans4=\left[\sin(A)=\frac{3}{\sqrt{9+x^2}},\ \cos(A)=\frac{x}{\sqrt{9+x^2}},\ \tan(A)=\frac{3}{x},\ \csc(A)=\frac{\sqrt{9+x^2}}{3},\ \sec(A)=\frac{\sqrt{9+x^2}}{x},\ \cot(A)=\frac{x}{3}\right]$$

$$Ans5=\left[\begin{array}{c} Ans.1=[y=\sin(\theta),\ 2\pi,\ 1,\ [-1,1]] \\ Ans.2=[y=-4\cos(\theta),\ 2\pi,\ 4,\ [-4,4]] \\ Ans.3=[y=\cos(2\theta),\ \pi,\ 1,\ [-1,1]] \\ Ans.4=[y=-4\cos(2\theta),\ \pi,\ 4,\ [-4,4]] \\ Ans.5=\left[y=\frac{1}{3}\cos(4\theta),\ \frac{\pi}{2},\ \frac{1}{3},\ \left[\frac{-1}{3},\frac{1}{3}\right]\right] \\ Ans.6=\left[y=-4\sin\left(\frac{\theta}{3}\right)-3,\ 6\pi,\ 4,\ [-7,1]\right] \\ Ans.7=\left[y=-\frac{1}{5}\sin\left(\frac{\pi\theta}{2}\right),\ 4,\ \frac{1}{5},\ \left[\frac{-1}{5},\frac{1}{5}\right]\right] \\ Ans.8=\left[y=-3\cos(4\pi\theta)-5,\ \frac{1}{2},\ 3,\ [-8,-2]\right] \end{array}\right],\quad Ans6=\left[\begin{array}{c} \left[y=\frac{1}{2}\sin\left(\frac{x}{2}\right)-3,\ blue\right] \\ [y=\cos(x)+2,\ black] \\ [y=-2\sin(2x),\ cyan] \\ \left[y=-2\cos\left(\frac{\pi x}{3}\right),\ green\right] \\ \left[y=\frac{1}{2}\sin\left(\frac{\pi x}{3}\right)+4,\ red\right] \end{array}\right],\left[\begin{array}{c} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{array}\right]$$

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TrigonometryExercise Answers for No.14703

$$Ans1 = \left[\sin(A) = \frac{5}{6}, \cos(A) = \frac{\sqrt{11}}{6}, \tan(A) = \frac{5\sqrt{11}}{11}, \csc(A) = \frac{6}{5}, \sec(A) = \frac{6\sqrt{11}}{11}, \cot(A) = \frac{\sqrt{11}}{5}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{4\sqrt{2}}{9}, \cos(A) = \frac{7}{9}, \tan(A) = \frac{4\sqrt{2}}{7}, \csc(A) = \frac{9\sqrt{2}}{8}, \sec(A) = \frac{9}{7}, \cot(A) = \frac{7\sqrt{2}}{8}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{2}{\sqrt{4+x^2}}, \cos(A) = \frac{x}{\sqrt{4+x^2}}, \tan(A) = \frac{2}{x}, \csc(A) = \frac{\sqrt{4+x^2}}{2}, \sec(A) = \frac{\sqrt{4+x^2}}{x}, \cot(A) = \frac{x}{2}\right]$$

$$Ans4 = \left[\sin(A) = \frac{x}{\sqrt{x^2+1}}, \cos(A) = \frac{1}{\sqrt{x^2+1}}, \tan(A) = x, \csc(A) = \frac{\sqrt{x^2+1}}{x}, \sec(A) = \sqrt{x^2+1}, \cot(A) = \frac{1}{x}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -6\cos(\theta), 2\pi, 6, [-6, 6]] \\ Ans.3 = \left[y = \sin(6\theta), \frac{\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = 2\cos(4\theta), \frac{\pi}{2}, 2, [-2, 2]\right] \\ Ans.5 = \left[y = \frac{1}{5}\cos(6\theta), \frac{\pi}{3}, \frac{1}{5}, \left[\frac{-1}{5}, \frac{1}{5}\right]\right] \\ Ans.6 = \left[y = 5\cos\left(\frac{\theta}{6}\right) + 3, 12\pi, 5, [-2, 8]\right] \\ Ans.7 = \left[y = -6\cos\left(\frac{\pi\theta}{4}\right), 8, 6, [-6, 6]\right] \\ Ans.8 = \left[y = -\frac{1}{3}\cos(5\pi\theta) + 4, \frac{2}{5}, \frac{1}{3}, \left[\frac{11}{3}, \frac{13}{3}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = \frac{3}{2}\sin(2\pi x), green\right] \\ \left[y = -2\sin\left(\frac{x}{2}\right), red\right] \\ [y = -\cos(x) + 3, black] \\ \left[y = \frac{3}{2}\cos\left(\frac{\pi x}{3}\right) - 3, blue\right] \\ \left[y = -\frac{1}{2}\sin\left(\frac{x}{2}\right) + 4, cyan\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

TrigonometryExercise Answers for No.14714

$$Ans1 = \left[\sin(A) = \frac{\sqrt{33}}{7}, \cos(A) = \frac{4}{7}, \tan(A) = \frac{\sqrt{33}}{4}, \csc(A) = \frac{7\sqrt{33}}{33}, \sec(A) = \frac{7}{4}, \cot(A) = \frac{4\sqrt{33}}{33}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{6}{7}, \cos(A) = \frac{\sqrt{13}}{7}, \tan(A) = \frac{6\sqrt{13}}{13}, \csc(A) = \frac{7}{6}, \sec(A) = \frac{7\sqrt{13}}{13}, \cot(A) = \frac{\sqrt{13}}{6}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{x}{6}, \cos(A) = \frac{\sqrt{36-x^2}}{6}, \tan(A) = \frac{x}{\sqrt{36-x^2}}, \csc(A) = \frac{6}{x}, \sec(A) = \frac{6}{\sqrt{36-x^2}}, \cot(A) = \frac{\sqrt{36-x^2}}{x}\right]$$

$$Ans4 = \left[\sin(A) = \frac{\sqrt{16-x^2}}{4}, \cos(A) = \frac{x}{4}, \tan(A) = \frac{\sqrt{16-x^2}}{x}, \csc(A) = \frac{4}{\sqrt{16-x^2}}, \sec(A) = \frac{4}{x}, \cot(A) = \frac{x}{\sqrt{16-x^2}}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 5\sin(\theta), 2\pi, 5, [-5, 5]] \\ Ans.3 = \left[y = \sin(3\theta), \frac{2\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = 4\cos(3\theta), \frac{2\pi}{3}, 4, [-4, 4]\right] \\ Ans.5 = \left[y = 4\sin\left(\frac{\theta}{6}\right), 12\pi, 4, [-4, 4]\right] \\ Ans.6 = \left[y = \frac{1}{2}\sin(6\theta) - 1, \frac{\pi}{3}, \frac{1}{2}, \left[\frac{-3}{2}, \frac{-1}{2}\right]\right] \\ Ans.7 = \left[y = -4\sin(5\pi\theta), \frac{2}{5}, 4, [-4, 4]\right] \\ Ans.8 = \left[y = -\frac{1}{4}\sin\left(\frac{\pi\theta}{3}\right) + 1, 6, \frac{1}{4}, \left[\frac{3}{4}, \frac{5}{4}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -2\sin\left(\frac{\pi x}{2}\right), cyan\right] \\ [y = \cos(x) + 1, black] \\ \left[y = -\frac{5}{2}\sin\left(\frac{x}{2}\right), red\right] \\ \left[y = \frac{3}{2}\cos\left(\frac{x}{2}\right) - 2, green\right] \\ \left[y = \frac{1}{2}\sin\left(\frac{\pi x}{2}\right) + 2, blue\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

TrigonometryExercise Answers for No.14746

$$Ans1 = \left[\sin(A) = \frac{8\sqrt{73}}{73}, \cos(A) = \frac{3\sqrt{73}}{73}, \tan(A) = \frac{8}{3}, \csc(A) = \frac{\sqrt{73}}{8}, \sec(A) = \frac{\sqrt{73}}{3}, \cot(A) = \frac{3}{8} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans2 = \left[\sin(A) = \frac{8\sqrt{73}}{73}, \cos(A) = \frac{3\sqrt{73}}{73}, \tan(A) = \frac{8}{3}, \csc(A) = \frac{\sqrt{73}}{8}, \sec(A) = \frac{\sqrt{73}}{3}, \cot(A) = \frac{3}{8} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

$$Ans3 = \left[\sin(A) = \frac{\sqrt{x^2-4}}{x}, \cos(A) = \frac{2}{x}, \tan(A) = \frac{\sqrt{x^2-4}}{2}, \csc(A) = \frac{x}{\sqrt{x^2-4}}, \sec(A) = \frac{x}{2}, \cot(A) = \frac{2}{\sqrt{x^2-4}} \right]$$

$$Ans4 = \left[\sin(A) = \frac{7}{x}, \cos(A) = \frac{\sqrt{x^2-49}}{x}, \tan(A) = \frac{7}{\sqrt{x^2-49}}, \csc(A) = \frac{x}{7}, \sec(A) = \frac{x}{\sqrt{x^2-49}}, \cot(A) = \frac{\sqrt{x^2-49}}{7} \right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 4\cos(\theta), 2\pi, 4, [-4, 4]] \\ Ans.3 = \left[y = \cos(3\theta), \frac{2\pi}{3}, 1, [-1, 1] \right] \\ Ans.4 = \left[y = -4\cos(3\theta), \frac{2\pi}{3}, 4, [-4, 4] \right] \\ Ans.5 = \left[y = -2\sin\left(\frac{\theta}{3}\right), 6\pi, 2, [-2, 2] \right] \\ Ans.6 = \left[y = -\frac{1}{4}\sin(2\theta) - 1, \pi, \frac{1}{4}, \left[\frac{-5}{4}, \frac{-3}{4} \right] \right] \\ Ans.7 = \left[y = -\frac{1}{6}\sin\left(\frac{\pi\theta}{3}\right), 6, \frac{1}{6}, \left[\frac{-1}{6}, \frac{1}{6} \right] \right] \\ Ans.8 = \left[y = -2\sin(6\pi\theta) - 3, \frac{1}{3}, 2, [-5, -1] \right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -\frac{1}{2}\sin\left(\frac{x}{2}\right), black \right] \\ \left[y = \frac{5}{2}\sin(2\pi x) - 4, cyan \right] \\ [y = -3\cos(2x) + 4, red] \\ [y = \cos(x) + 3, green] \\ \left[y = \frac{1}{2}\sin\left(\frac{\pi x}{3}\right), blue \right] \end{bmatrix}, \begin{bmatrix} \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\\ \underline{:)} \\ :(\end{bmatrix}$$

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TrigonometryExercise Answers for No.15000

$$Ans1 = \left[\sin(A) = \frac{5}{8}, \cos(A) = \frac{\sqrt{39}}{8}, \tan(A) = \frac{5\sqrt{39}}{39}, \csc(A) = \frac{8}{5}, \sec(A) = \frac{8\sqrt{39}}{39}, \cot(A) = \frac{\sqrt{39}}{5}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{\sqrt{55}}{8}, \cos(A) = \frac{3}{8}, \tan(A) = \frac{\sqrt{55}}{3}, \csc(A) = \frac{8\sqrt{55}}{55}, \sec(A) = \frac{8}{3}, \cot(A) = \frac{3\sqrt{55}}{55}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{7}{\sqrt{49+x^2}}, \cos(A) = \frac{x}{\sqrt{49+x^2}}, \tan(A) = \frac{7}{x}, \csc(A) = \frac{\sqrt{49+x^2}}{7}, \sec(A) = \frac{\sqrt{49+x^2}}{x}, \cot(A) = \frac{x}{7}\right]$$

$$Ans4 = \left[\sin(A) = \frac{1}{x}, \cos(A) = \frac{\sqrt{x^2-1}}{x}, \tan(A) = \frac{1}{\sqrt{x^2-1}}, \csc(A) = x, \sec(A) = \frac{x}{\sqrt{x^2-1}}, \cot(A) = \sqrt{x^2-1}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 4\sin(\theta), 2\pi, 4, [-4, 4]] \\ Ans.3 = \left[y = \cos(3\theta), \frac{2\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = 3\cos(4\theta), \frac{\pi}{2}, 3, [-3, 3]\right] \\ Ans.5 = \left[y = \frac{1}{4}\cos(5\theta), \frac{2\pi}{5}, \frac{1}{4}, \left[\frac{-1}{4}, \frac{1}{4}\right]\right] \\ Ans.6 = \left[y = -6\cos\left(\frac{\theta}{5}\right) - 2, 10\pi, 6, [-8, 4]\right] \\ Ans.7 = \left[y = -6\cos\left(\frac{\pi\theta}{3}\right), 6, 6, [-6, 6]\right] \\ Ans.8 = \left[y = -\frac{1}{5}\cos(6\pi\theta) - 1, \frac{1}{3}, \frac{1}{5}, \left[\frac{-6}{5}, \frac{-4}{5}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = \frac{3}{2}\cos\left(\frac{\pi x}{3}\right), green\right] \\ [y = -\sin(x), red] \\ \left[y = \frac{1}{2}\cos\left(\frac{x}{3}\right) - 2, cyan\right] \\ [y = -2\cos(2\pi x) + 2, black] \\ \left[y = -\frac{5}{2}\sin\left(\frac{x}{3}\right), blue\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.15012

$$Ans1 = \left[\sin(A) = \frac{2\sqrt{6}}{7}, \cos(A) = \frac{5}{7}, \tan(A) = \frac{2\sqrt{6}}{5}, \csc(A) = \frac{7\sqrt{6}}{12}, \sec(A) = \frac{7}{5}, \cot(A) = \frac{5\sqrt{6}}{12}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{2\sqrt{10}}{7}, \cos(A) = \frac{3}{7}, \tan(A) = \frac{2\sqrt{10}}{3}, \csc(A) = \frac{7\sqrt{10}}{20}, \sec(A) = \frac{7}{3}, \cot(A) = \frac{3\sqrt{10}}{20}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = x, \cos(A) = \sqrt{1-x^2}, \tan(A) = \frac{x}{\sqrt{1-x^2}}, \csc(A) = \frac{1}{x}, \sec(A) = \frac{1}{\sqrt{1-x^2}}, \cot(A) = \frac{\sqrt{1-x^2}}{x}\right]$$

$$Ans4 = \left[\sin(A) = \frac{x}{7}, \cos(A) = \frac{\sqrt{49-x^2}}{7}, \tan(A) = \frac{x}{\sqrt{49-x^2}}, \csc(A) = \frac{7}{x}, \sec(A) = \frac{7}{\sqrt{49-x^2}}, \cot(A) = \frac{\sqrt{49-x^2}}{x}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 3\sin(\theta), 2\pi, 3, [-3, 3]] \\ Ans.3 = \left[y = \cos(6\theta), \frac{\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = [y = -5\cos(2\theta), \pi, 5, [-5, 5]] \\ Ans.5 = \left[y = -\frac{1}{4}\cos(2\theta), \pi, \frac{1}{4}, \left[\frac{-1}{4}, \frac{1}{4}\right]\right] \\ Ans.6 = \left[y = 2\sin\left(\frac{\theta}{4}\right) - 5, 8\pi, 2, [-7, -3]\right] \\ Ans.7 = \left[y = -2\sin(4\pi\theta), \frac{1}{2}, 2, [-2, 2]\right] \\ Ans.8 = \left[y = -\frac{1}{4}\sin\left(\frac{\pi\theta}{5}\right) - 3, 10, \frac{1}{4}, \left[\frac{-13}{4}, \frac{-11}{4}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -\frac{1}{2}\cos\left(\frac{\pi x}{2}\right), \mathit{cyan}\right] \\ [y = \sin(x) + 1, \mathit{black}] \\ \left[y = -\frac{3}{2}\sin(2\pi x) + 3, \mathit{red}\right] \\ \left[y = -\frac{3}{2}\cos\left(\frac{x}{3}\right) + 4, \mathit{blue}\right] \\ \left[y = \frac{3}{2}\cos\left(\frac{x}{2}\right), \mathit{green}\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.15024

$$Ans1 = \left[\sin(A) = \frac{2\sqrt{10}}{7}, \cos(A) = \frac{3}{7}, \tan(A) = \frac{2\sqrt{10}}{3}, \csc(A) = \frac{7\sqrt{10}}{20}, \sec(A) = \frac{7}{3}, \cot(A) = \frac{3\sqrt{10}}{20}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{4}{5}, \cos(A) = \frac{3}{5}, \tan(A) = \frac{4}{3}, \csc(A) = \frac{5}{4}, \sec(A) = \frac{5}{3}, \cot(A) = \frac{3}{4}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{2}{x}, \cos(A) = \frac{\sqrt{x^2-4}}{x}, \tan(A) = \frac{2}{\sqrt{x^2-4}}, \csc(A) = \frac{x}{2}, \sec(A) = \frac{x}{\sqrt{x^2-4}}, \cot(A) = \frac{\sqrt{x^2-4}}{2}\right]$$

$$Ans4 = \left[\sin(A) = \frac{\sqrt{x^2-36}}{x}, \cos(A) = \frac{6}{x}, \tan(A) = \frac{\sqrt{x^2-36}}{6}, \csc(A) = \frac{x}{\sqrt{x^2-36}}, \sec(A) = \frac{x}{6}, \cot(A) = \frac{6}{\sqrt{x^2-36}}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -2\cos(\theta), 2\pi, 2, [-2, 2]] \\ Ans.3 = [y = \cos(2\theta), \pi, 1, [-1, 1]] \\ Ans.4 = [y = -6\sin(2\theta), \pi, 6, [-6, 6]] \\ Ans.5 = \left[y = 4\sin\left(\frac{\theta}{2}\right), 4\pi, 4, [-4, 4]\right] \\ Ans.6 = \left[y = -\frac{1}{6}\sin(5\theta) - 4, \frac{2\pi}{5}, \frac{1}{6}, \left[\frac{-25}{6}, \frac{-23}{6}\right]\right] \\ Ans.7 = \left[y = -\frac{1}{4}\sin\left(\frac{\pi\theta}{2}\right), 4, \frac{1}{4}, \left[\frac{-1}{4}, \frac{1}{4}\right]\right] \\ Ans.8 = \left[y = -3\cos(4\pi\theta) - 4, \frac{1}{2}, 3, [-7, -1]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = \frac{1}{2}\cos\left(\frac{\pi x}{3}\right) + 3, cyan\right] \\ \left[y = -2\sin\left(\frac{x}{2}\right), black\right] \\ \left[y = 2\sin\left(\frac{x}{3}\right) - 4, blue\right] \\ [y = -\sin(x) + 1, green] \\ \left[y = 3\cos\left(\frac{\pi x}{2}\right), red\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

TrigonometryExercise Answers for No.15032

$$Ans1 = \left[\sin(A) = \frac{4\sqrt{2}}{9}, \cos(A) = \frac{7}{9}, \tan(A) = \frac{4\sqrt{2}}{7}, \csc(A) = \frac{9\sqrt{2}}{8}, \sec(A) = \frac{9}{7}, \cot(A) = \frac{7\sqrt{2}}{8}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{5\sqrt{89}}{89}, \cos(A) = \frac{8\sqrt{89}}{89}, \tan(A) = \frac{5}{8}, \csc(A) = \frac{\sqrt{89}}{5}, \sec(A) = \frac{\sqrt{89}}{8}, \cot(A) = \frac{8}{5}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans3 = \left[\sin(A) = \frac{5}{x}, \cos(A) = \frac{\sqrt{x^2-25}}{x}, \tan(A) = \frac{5}{\sqrt{x^2-25}}, \csc(A) = \frac{x}{5}, \sec(A) = \frac{x}{\sqrt{x^2-25}}, \cot(A) = \frac{\sqrt{x^2-25}}{5}\right]$$

$$Ans4 = \left[\sin(A) = \frac{4}{x}, \cos(A) = \frac{\sqrt{x^2-16}}{x}, \tan(A) = \frac{4}{\sqrt{x^2-16}}, \csc(A) = \frac{x}{4}, \sec(A) = \frac{x}{\sqrt{x^2-16}}, \cot(A) = \frac{\sqrt{x^2-16}}{4}\right]$$

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 2\sin(\theta), 2\pi, 2, [-2, 2]] \\ Ans.3 = \left[y = \cos(5\theta), \frac{2\pi}{5}, 1, [-1, 1]\right] \\ Ans.4 = [y = 4\sin(2\theta), \pi, 4, [-4, 4]] \\ Ans.5 = \left[y = -4\cos\left(\frac{\theta}{2}\right), 4\pi, 4, [-4, 4]\right] \\ Ans.6 = \left[y = \frac{1}{3}\cos(6\theta) + 5, \frac{\pi}{3}, \frac{1}{3}, \left[\frac{14}{3}, \frac{16}{3}\right]\right] \\ Ans.7 = \left[y = -\frac{1}{3}\sin(5\pi\theta), \frac{2}{5}, \frac{1}{3}, \left[\frac{-1}{3}, \frac{1}{3}\right]\right] \\ Ans.8 = \left[y = -3\cos\left(\frac{\pi\theta}{2}\right) + 2, 4, 3, [-1, 5]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -2\sin\left(\frac{x}{2}\right), cyan\right] \\ \left[y = \frac{5}{2}\sin\left(\frac{x}{3}\right) - 4, black\right] \\ \left[y = \frac{3}{2}\cos(2\pi x), blue\right] \\ \left[y = -2\cos\left(\frac{\pi x}{3}\right) - 2, red\right] \\ [y = -\sin(x) - 3, green] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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