TrigonometryExercise Answers for No.9124

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

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

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

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

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

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TrigonometryExercise Answers for No.9197

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

$$Ans2 = \left[\sin(A) = \frac{7\sqrt{113}}{113}, \cos(A) = \frac{8\sqrt{113}}{113}, \tan(A) = \frac{7}{8}, \csc(A) = \frac{\sqrt{113}}{7}, \sec(A) = \frac{\sqrt{113}}{8}, \cot(A) = \frac{8}{7}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

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

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

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

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TrigonometryExercise Answers for No.9252

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

$$Ans2 = \left[\sin(A) = \frac{4\sqrt{41}}{41}, \cos(A) = \frac{5\sqrt{41}}{41}, \tan(A) = \frac{4}{5}, \csc(A) = \frac{\sqrt{41}}{4}, \sec(A) = \frac{\sqrt{41}}{5}, \cot(A) = \frac{5}{4} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

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

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

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

TrigonometryExercise Answers for No.9312

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

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

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

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

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

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TrigonometryExercise Answers for No.9397

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

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

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

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

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -2\cos(\theta), 2\pi, 2, [-2, 2]] \\ Ans.3 = \left[y = \cos(5\theta), \frac{2\pi}{5}, 1, [-1, 1]\right] \\ Ans.4 = [y = 4\cos(2\theta), \pi, 4, [-4, 4]] \\ Ans.5 = \left[y = -5\sin\left(\frac{\theta}{6}\right), 12\pi, 5, [-5, 5]\right] \\ Ans.6 = \left[y = -\frac{1}{5}\sin(6\theta) + 5, \frac{\pi}{3}, \frac{1}{5}, \left[\frac{24}{5}, \frac{26}{5}\right]\right] \\ Ans.7 = \left[y = -\frac{1}{5}\cos(2\pi\theta), 1, \frac{1}{5}, \left[\frac{-1}{5}, \frac{1}{5}\right]\right] \\ Ans.8 = \left[y = -6\sin\left(\frac{\pi\theta}{4}\right) - 2, 8, 6, [-8, 4]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[\left[y = -\frac{5}{2}\sin(2\pi x) - 2, red\right]\right] \\ [y = \cos(x) + 3, black] \\ [y = -3\cos(2x), green] \\ \left[y = 2\cos\left(\frac{x}{2}\right) - 4, cyan\right] \\ \left[y = -3\sin\left(\frac{\pi x}{3}\right), blue\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.9449

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

$$Ans2 = \left[\sin(A) = \frac{2\sqrt{53}}{53}, \cos(A) = \frac{7\sqrt{53}}{53}, \tan(A) = \frac{2}{7}, \csc(A) = \frac{\sqrt{53}}{2}, \sec(A) = \frac{\sqrt{53}}{7}, \cot(A) = \frac{7}{2}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

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

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

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

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TrigonometryExercise Answers for No.9562

$$Ans1 = \left[\sin(A) = \frac{5}{9}, \cos(A) = \frac{2\sqrt{14}}{9}, \tan(A) = \frac{5\sqrt{14}}{28}, \csc(A) = \frac{9}{5}, \sec(A) = \frac{9\sqrt{14}}{28}, \cot(A) = \frac{2\sqrt{14}}{5} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

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

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

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

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -6\sin(\theta), 2\pi, 6, [-6, 6]] \\ Ans.3 = [y = \cos(2\theta), \pi, 1, [-1, 1]] \\ Ans.4 = \left[y = 5\sin(6\theta), \frac{\pi}{3}, 5, [-5, 5] \right] \\ Ans.5 = \left[y = -\frac{1}{4}\sin(5\theta), \frac{2\pi}{5}, \frac{1}{4}, \left[\frac{-1}{4}, \frac{1}{4} \right] \right] \\ Ans.6 = \left[y = 6\sin\left(\frac{\theta}{3}\right) + 5, 6\pi, 6, [-1, 11] \right] \\ Ans.7 = \left[y = -2\cos\left(\frac{\pi\theta}{4}\right), 8, 2, [-2, 2] \right] \\ Ans.8 = \left[y = -\frac{1}{6}\sin(2\pi\theta) - 5, 1, \frac{1}{6}, \left[\frac{-31}{6}, \frac{-29}{6} \right] \right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -\frac{3}{2}\sin\left(\frac{\pi x}{2}\right) - 2, green \right] \\ [y = \cos(x) - 2, blue] \\ \left[y = -\frac{1}{2}\sin\left(\frac{x}{2}\right) - 4, black \right] \\ \left[y = \frac{3}{2}\cos\left(\frac{\pi x}{2}\right), cyan \right] \\ \left[y = -2\sin\left(\frac{x}{2}\right), red \right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.9721

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

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

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

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

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

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TrigonometryExercise Answers for No.9789

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

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

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

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

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

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TrigonometryExercise Answers for No.9795

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

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

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

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

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

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TrigonometryExercise Answers for No.9839

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

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

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

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

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

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TrigonometryExercise Answers for No.9843

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

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

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

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

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -5\sin(\theta), 2\pi, 5, [-5, 5]] \\ Ans.3 = [y = \cos(2\theta), \pi, 1, [-1, 1]] \\ Ans.4 = \left[y = -4\sin(6\theta), \frac{\pi}{3}, 4, [-4, 4]\right] \\ Ans.5 = \left[y = -6\cos\left(\frac{\theta}{3}\right), 6\pi, 6, [-6, 6]\right] \\ Ans.6 = \left[y = \frac{1}{4}\cos(6\theta) - 4, \frac{\pi}{3}, \frac{1}{4}, \left[\frac{-17}{4}, \frac{-15}{4}\right]\right] \\ Ans.7 = \left[y = -\frac{1}{3}\cos(2\pi\theta), 1, \frac{1}{3}, \left[\frac{-1}{3}, \frac{1}{3}\right]\right] \\ Ans.8 = \left[y = -4\cos\left(\frac{\pi\theta}{3}\right) - 3, 6, 4, [-7, 1]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = \frac{1}{2}\cos\left(\frac{\pi x}{3}\right) - 2, cyan\right] \\ [y = \cos(x) + 3, red] \\ \left[y = -\frac{1}{2}\sin\left(\frac{x}{3}\right), blue\right] \\ \left[y = -3\cos\left(\frac{x}{3}\right) - 3, green\right] \\ \left[y = -2\sin\left(\frac{\pi x}{2}\right), black\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.9854

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

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

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

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

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

TrigonometryExercise Answers for No.9862

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

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

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

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

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

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TrigonometryExercise Answers for No.10278

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

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

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

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

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

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TrigonometryExercise Answers for No.10361

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

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

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

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

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

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TrigonometryExercise Answers for No.10532

$$Ans1 = \left[\sin(A) = \frac{\sqrt{13}}{7}, \cos(A) = \frac{6}{7}, \tan(A) = \frac{\sqrt{13}}{6}, \csc(A) = \frac{7\sqrt{13}}{13}, \sec(A) = \frac{7}{6}, \cot(A) = \frac{6\sqrt{13}}{13}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

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

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

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

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

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TrigonometryExercise Answers for No.10688

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

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

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

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

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

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TrigonometryExercise Answers for No.10868

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

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

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

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

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -6\cos(\theta), 2\pi, 6, [-6, 6]] \\ Ans.3 = \left[y = \sin(6\theta), \frac{\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = -3\cos(6\theta), \frac{\pi}{3}, 3, [-3, 3]\right] \\ Ans.5 = \left[y = 2\cos\left(\frac{\theta}{6}\right), 12\pi, 2, [-2, 2]\right] \\ Ans.6 = \left[y = \frac{1}{3}\cos(4\theta) - 4, \frac{\pi}{2}, \frac{1}{3}, \left[\frac{-13}{3}, \frac{-11}{3}\right]\right] \\ Ans.7 = \left[y = -\frac{1}{3}\cos(2\pi\theta), 1, \frac{1}{3}, \left[\frac{-1}{3}, \frac{1}{3}\right]\right] \\ Ans.8 = \left[y = -6\cos\left(\frac{\pi\theta}{4}\right) - 3, 8, 6, [-9, 3]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} [y = -2\cos(2\pi x) + 2, blue] \\ \left[y = \frac{3}{2}\cos(2x) - 2, black\right] \\ \left[y = -\frac{3}{2}\sin\left(\frac{x}{3}\right), green\right] \\ [y = \cos(x) + 3, cyan] \\ \left[y = \frac{1}{2}\sin\left(\frac{\pi x}{2}\right), red\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.10900

$$Ans1 = \left[\sin(A) = \frac{8}{9}, \cos(A) = \frac{\sqrt{17}}{9}, \tan(A) = \frac{8\sqrt{17}}{17}, \csc(A) = \frac{9}{8}, \sec(A) = \frac{9\sqrt{17}}{17}, \cot(A) = \frac{\sqrt{17}}{8}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

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

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

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

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

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TrigonometryExercise Answers for No.11693

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

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

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

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

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

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TrigonometryExercise Answers for No.12097

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

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

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

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

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

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TrigonometryExercise Answers for No.12172

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

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

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

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

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

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TrigonometryExercise Answers for No.12173

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

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

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

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

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

TrigonometryExercise Answers for No.12180

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

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

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

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

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

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TrigonometryExercise Answers for No.12256

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

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

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

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

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

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TrigonometryExercise Answers for No.12278

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

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

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

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

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -6\cos(\theta), 2\pi, 6, [-6, 6]] \\ Ans.3 = \left[y = \cos(4\theta), \frac{\pi}{2}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = 6\sin(4\theta), \frac{\pi}{2}, 6, [-6, 6]\right] \\ Ans.5 = \left[y = -6\cos\left(\frac{\theta}{2}\right), 4\pi, 6, [-6, 6]\right] \\ Ans.6 = \left[y = \frac{1}{6}\sin(3\theta) - 3, \frac{2\pi}{3}, \frac{1}{6}, \left[\frac{-19}{6}, \frac{-17}{6}\right]\right] \\ Ans.7 = \left[y = -4\sin\left(\frac{\pi\theta}{2}\right), 4, 4, [-4, 4]\right] \\ Ans.8 = \left[y = -\frac{1}{4}\sin(3\pi\theta) - 5, \frac{2}{3}, \frac{1}{4}, \left[\frac{-21}{4}, \frac{-19}{4}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -3\sin\left(\frac{x}{3}\right) + 3, green\right] \\ \left[y = -\frac{5}{2}\cos(2\pi x), blue\right] \\ \left[y = 2\cos\left(\frac{\pi x}{2}\right) - 2, cyan\right] \\ [y = \sin(x) + 1, red] \\ \left[y = -\frac{5}{2}\cos\left(\frac{x}{3}\right), black\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.12482

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

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

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

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

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

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TrigonometryExercise Answers for No.12586

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

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

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

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

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

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TrigonometryExercise Answers for No.12677

$$Ans1 = \left[\sin(A) = \frac{2\sqrt{14}}{9}, \cos(A) = \frac{5}{9}, \tan(A) = \frac{2\sqrt{14}}{5}, \csc(A) = \frac{9\sqrt{14}}{28}, \sec(A) = \frac{9}{5}, \cot(A) = \frac{5\sqrt{14}}{28} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

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

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

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

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

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TrigonometryExercise Answers for No.13490

$$Ans1 = \left[\sin(A) = \frac{7\sqrt{53}}{53}, \cos(A) = \frac{2\sqrt{53}}{53}, \tan(A) = \frac{7}{2}, \csc(A) = \frac{\sqrt{53}}{7}, \sec(A) = \frac{\sqrt{53}}{2}, \cot(A) = \frac{2}{7}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

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

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

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

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

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TrigonometryExercise Answers for No.13500

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

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

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

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

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

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TrigonometryExercise Answers for No.13637

$$Ans1 = \left[\sin(A) = \frac{8\sqrt{113}}{113}, \cos(A) = \frac{7\sqrt{113}}{113}, \tan(A) = \frac{8}{7}, \csc(A) = \frac{\sqrt{113}}{8}, \sec(A) = \frac{\sqrt{113}}{7}, \cot(A) = \frac{7}{8}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

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

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

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

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

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TrigonometryExercise Answers for No.645101

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

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

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

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

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 6\sin(\theta), 2\pi, 6, [-6, 6]] \\ Ans.3 = [y = \cos(2\theta), \pi, 1, [-1, 1]] \\ Ans.4 = \left[y = -2\sin(5\theta), \frac{2\pi}{5}, 2, [-2, 2] \right] \\ Ans.5 = \left[y = 6\sin\left(\frac{\theta}{3}\right), 6\pi, 6, [-6, 6] \right] \\ Ans.6 = \left[y = \frac{1}{6}\sin(3\theta) + 5, \frac{2\pi}{3}, \frac{1}{6}, \left[\frac{29}{6}, \frac{31}{6} \right] \right] \\ Ans.7 = [y = -3\sin(2\pi\theta), 1, 3, [-3, 3]] \\ Ans.8 = \left[y = -\frac{1}{6}\cos\left(\frac{\pi\theta}{2}\right) + 1, 4, \frac{1}{6}, \left[\frac{5}{6}, \frac{7}{6} \right] \right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -\frac{5}{2}\cos\left(\frac{\pi x}{3}\right), red \right] \\ [y = -\cos(x) + 3, blue] \\ [y = 2\sin(2x), green] \\ \left[y = 3\cos\left(\frac{\pi x}{3}\right) + 4, cyan \right] \\ \left[y = \frac{3}{2}\sin\left(\frac{x}{2}\right) - 2, black \right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.645102

$$Ans1 = \left[\sin(A) = \frac{6}{7}, \cos(A) = \frac{\sqrt{13}}{7}, \tan(A) = \frac{6\sqrt{13}}{13}, \csc(A) = \frac{7}{6}, \sec(A) = \frac{7\sqrt{13}}{13}, \cot(A) = \frac{\sqrt{13}}{6}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

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

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

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

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

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TrigonometryExercise Answers for No.645103

$$Ans1 = \left[\sin(A) = \frac{\sqrt{65}}{9}, \cos(A) = \frac{4}{9}, \tan(A) = \frac{\sqrt{65}}{4}, \csc(A) = \frac{9\sqrt{65}}{65}, \sec(A) = \frac{9}{4}, \cot(A) = \frac{4\sqrt{65}}{65}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2 = \left[\sin(A) = \frac{4\sqrt{41}}{41}, \cos(A) = \frac{5\sqrt{41}}{41}, \tan(A) = \frac{4}{5}, \csc(A) = \frac{\sqrt{41}}{4}, \sec(A) = \frac{\sqrt{41}}{5}, \cot(A) = \frac{5}{4}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

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

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

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

TrigonometryExercise Answers for No.645104

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

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

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

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

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

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TrigonometryExercise Answers for No.645105

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

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

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

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

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

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TrigonometryExercise Answers for No.645106

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

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

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

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

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

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TrigonometryExercise Answers for No.645107

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

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

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

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

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

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TrigonometryExercise Answers for No.645108

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

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

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

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

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 3\cos(\theta), 2\pi, 3, [-3, 3]] \\ Ans.3 = \left[y = \cos(5\theta), \frac{2\pi}{5}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = -6\sin(5\theta), \frac{2\pi}{5}, 6, [-6, 6]\right] \\ Ans.5 = \left[y = \frac{1}{5}\sin(2\theta), \pi, \frac{1}{5}, \left[\frac{-1}{5}, \frac{1}{5}\right]\right] \\ Ans.6 = \left[y = -4\cos\left(\frac{\theta}{5}\right) - 1, 10\pi, 4, [-5, 3]\right] \\ Ans.7 = \left[y = -2\cos\left(\frac{\pi\theta}{4}\right), 8, 2, [-2, 2]\right] \\ Ans.8 = \left[y = -\frac{1}{4}\cos(2\pi\theta) + 4, 1, \frac{1}{4}, \left[\frac{15}{4}, \frac{17}{4}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} [y = \sin(x) + 3, black] \\ \left[y = -\frac{5}{2}\sin\left(\frac{\pi x}{2}\right), red\right] \\ [y = -3\cos(2x), cyan] \\ [y = -2\cos(2\pi x) - 3, blue] \\ \left[y = 2\cos\left(\frac{x}{3}\right) - 2, green\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.645109

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

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

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

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

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

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TrigonometryExercise Answers for No.645110

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

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

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

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

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

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TrigonometryExercise Answers for No.645111

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

$$Ans2 = \left[\sin(A) = \frac{2}{5}, \cos(A) = \frac{\sqrt{21}}{5}, \tan(A) = \frac{2\sqrt{21}}{21}, \csc(A) = \frac{5}{2}, \sec(A) = \frac{5\sqrt{21}}{21}, \cot(A) = \frac{\sqrt{21}}{2} \right], \quad , \left[\frac{\sqrt{:)}}{:(} \right]$$

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

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

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

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TrigonometryExercise Answers for No.645112

$$Ans1=\left[\sin(A)=\frac{3\sqrt{58}}{58},\ \cos(A)=\frac{7\sqrt{58}}{58},\ \tan(A)=\frac{3}{7},\ \csc(A)=\frac{\sqrt{58}}{3},\ \sec(A)=\frac{\sqrt{58}}{7},\ \cot(A)=\frac{7}{3}\right],\ \left[\frac{\sqrt{:)}}{:(}\right]$$

$$Ans2=\left[\sin(A)=\frac{8\sqrt{113}}{113},\ \cos(A)=\frac{7\sqrt{113}}{113},\ \tan(A)=\frac{8}{7},\ \csc(A)=\frac{\sqrt{113}}{8},\ \sec(A)=\frac{\sqrt{113}}{7},\ \cot(A)=\frac{7}{8}\right],\ \left[\frac{\sqrt{:)}}{:(}\right]$$

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

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

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

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TrigonometryExercise Answers for No.645113

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

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

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

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

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

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TrigonometryExercise Answers for No.645114

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

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

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

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

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -6\cos(\theta), 2\pi, 6, [-6, 6]] \\ Ans.3 = \left[y = \cos(3\theta), \frac{2\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = -5\sin(6\theta), \frac{\pi}{3}, 5, [-5, 5]\right] \\ Ans.5 = \left[y = 5\cos\left(\frac{\theta}{3}\right), 6\pi, 5, [-5, 5]\right] \\ Ans.6 = \left[y = \frac{1}{4}\sin(2\theta) + 2, \pi, \frac{1}{4}, \left[\frac{7}{4}, \frac{9}{4}\right]\right] \\ Ans.7 = \left[y = -3\cos\left(\frac{\pi\theta}{6}\right), 12, 3, [-3, 3]\right] \\ Ans.8 = \left[y = -\frac{1}{5}\cos(3\pi\theta) + 3, \frac{2}{3}, \frac{1}{5}, \left[\frac{14}{5}, \frac{16}{5}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[\left[y = -2\sin\left(\frac{\pi x}{2}\right) + 2, green\right]\right] \\ \left[y = \frac{1}{2}\cos(2\pi x), blue\right] \\ [y = \cos(x) - 3, black] \\ \left[y = 2\cos\left(\frac{x}{2}\right) + 4, cyan\right] \\ \left[y = -\frac{1}{2}\sin\left(\frac{x}{3}\right), red\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.645115

$$Ans1 = \left[\sin(A) = \frac{2\sqrt{14}}{9}, \cos(A) = \frac{5}{9}, \tan(A) = \frac{2\sqrt{14}}{5}, \csc(A) = \frac{9\sqrt{14}}{28}, \sec(A) = \frac{9}{5}, \cot(A) = \frac{5\sqrt{14}}{28}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

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

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

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

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

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TrigonometryExercise Answers for No.645116

$$Ans1 = \left[\sin(A) = \frac{3\sqrt{58}}{58}, \cos(A) = \frac{7\sqrt{58}}{58}, \tan(A) = \frac{3}{7}, \csc(A) = \frac{\sqrt{58}}{3}, \sec(A) = \frac{\sqrt{58}}{7}, \cot(A) = \frac{7}{3}\right], \quad , \left[\frac{\sqrt{:)}}{:(}\right]$$

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

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

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

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \cos(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = -2\sin(\theta), 2\pi, 2, [-2, 2]] \\ Ans.3 = \left[y = \cos(6\theta), \frac{\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = 3\sin(4\theta), \frac{\pi}{2}, 3, [-3, 3]\right] \\ Ans.5 = \left[y = 3\sin\left(\frac{\theta}{4}\right), 8\pi, 3, [-3, 3]\right] \\ Ans.6 = \left[y = \frac{1}{4}\sin(5\theta) + 4, \frac{2\pi}{5}, \frac{1}{4}, \left[\frac{15}{4}, \frac{17}{4}\right]\right] \\ Ans.7 = [y = -5\sin(2\pi\theta), 1, 5, [-5, 5]] \\ Ans.8 = \left[y = -\frac{1}{4}\cos\left(\frac{\pi\theta}{5}\right) - 4, 10, \frac{1}{4}, \left[\frac{-17}{4}, \frac{-15}{4}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = \frac{3}{2}\sin\left(\frac{x}{2}\right), green\right] \\ \left[y = \frac{5}{2}\sin(2\pi x) + 3, blue\right] \\ \left[y = \frac{5}{2}\cos(2x) - 4, red\right] \\ [y = -\sin(x), black] \\ \left[y = -\frac{1}{2}\cos\left(\frac{\pi x}{2}\right), cyan\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.645117

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

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

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

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

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

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TrigonometryExercise Answers for No.645118

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

$$Ans2 = \left[\sin(A) = \frac{5}{6}, \cos(A) = \frac{\sqrt{11}}{6}, \tan(A) = \frac{5\sqrt{11}}{11}, \csc(A) = \frac{6}{5}, \sec(A) = \frac{6\sqrt{11}}{11}, \cot(A) = \frac{\sqrt{11}}{5}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

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

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

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

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TrigonometryExercise Answers for No.645119

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

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

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

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

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

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TrigonometryExercise Answers for No.645120

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

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

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

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

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

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TrigonometryExercise Answers for No.645121

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

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

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

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

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

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TrigonometryExercise Answers for No.645122

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

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

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

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

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

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TrigonometryExercise Answers for No.645123

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

$$Ans2 = \left[\sin(A) = \frac{7\sqrt{74}}{74}, \cos(A) = \frac{5\sqrt{74}}{74}, \tan(A) = \frac{7}{5}, \csc(A) = \frac{\sqrt{74}}{7}, \sec(A) = \frac{\sqrt{74}}{5}, \cot(A) = \frac{5}{7}\right], \left[\frac{\sqrt{:)}}{:(}\right]$$

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

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

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

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TrigonometryExercise Answers for No.645124

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

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

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

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

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

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TrigonometryExercise Answers for No.645125

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

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

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

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

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

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TrigonometryExercise Answers for No.645126

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

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

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

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

$$Ans5 = \begin{bmatrix} Ans.1 = [y = \sin(\theta), 2\pi, 1, [-1, 1]] \\ Ans.2 = [y = 5\cos(\theta), 2\pi, 5, [-5, 5]] \\ Ans.3 = \left[y = \sin(3\theta), \frac{2\pi}{3}, 1, [-1, 1]\right] \\ Ans.4 = \left[y = -2\sin(6\theta), \frac{\pi}{3}, 2, [-2, 2]\right] \\ Ans.5 = \left[y = 2\sin\left(\frac{\theta}{6}\right), 12\pi, 2, [-2, 2]\right] \\ Ans.6 = \left[y = -\frac{1}{5}\cos(6\theta) + 5, \frac{\pi}{3}, \frac{1}{5}, \left[\frac{24}{5}, \frac{26}{5}\right]\right] \\ Ans.7 = [y = -5\sin(2\pi\theta), 1, 5, [-5, 5]] \\ Ans.8 = \left[y = -\frac{1}{4}\cos\left(\frac{\pi\theta}{6}\right) - 2, 12, \frac{1}{4}, \left[\frac{-9}{4}, \frac{-7}{4}\right]\right] \end{bmatrix}, \quad Ans6 = \begin{bmatrix} \left[y = -\frac{1}{2}\sin\left(\frac{x}{2}\right), blue\right] \\ [y = -\cos(x) - 2, green] \\ \left[y = \frac{5}{2}\sin\left(\frac{\pi x}{2}\right) - 3, cyan\right] \\ \left[y = 2\cos\left(\frac{\pi x}{2}\right), red\right] \\ \left[y = 2\sin\left(\frac{x}{2}\right) - 2, black\right] \end{bmatrix}, \begin{bmatrix} \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \\ \frac{:)}{:(} \end{bmatrix}$$

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TrigonometryExercise Answers for No.645127

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

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

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

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

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

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TrigonometryExercise Answers for No.645128

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

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

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

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

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

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TrigonometryExercise Answers for No.645129

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

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

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

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

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

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TrigonometryExercise Answers for No.645130

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

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

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

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

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

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