

4.4 Trigonometric Functions of Any Angle

Name:

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P 13. $(5, 12)$ is the point on the terminal side of an angle in standard position. Find the exact values of the six basic trigonometric functions of that angle.

P 19. State the quadrant in which θ lies.

$$\sin \theta > 0 \text{ and } \cos \theta > 0$$

P 20. State the quadrant in which θ lies.

$$\sec \theta < 0 \text{ and } \cot \theta < 0$$

P 22. State the quadrant in which θ lies.

$$\sec \theta > 0 \text{ and } \cot \theta < 0$$

P 23. Find the values of the six trigonometric functions of θ given that

$$\tan \theta = \frac{-15}{8} \text{ and } \sin \theta > 0$$

P 26. Find the values of the six trigonometric functions of θ given that

$$\cos \theta = -\frac{4}{5} \text{ and } \theta \text{ lies in Quadrant II}$$

P 32. Find the values of the six trigonometric functions of θ given that

$$\tan \theta = \text{undefined and } \pi \leq \theta \leq 2\pi$$

P 39. Evaluate

$$\sec \frac{3\pi}{2}$$

P 50. Find the reference angle θ' , and sketch θ and θ' in standard position.

$$\theta = \frac{7\pi}{6}$$

P 68. Evaluate the sine, cosine, and tangent of

$$-\frac{23\pi}{4}$$

P 69. If $\sin \theta = -3/5$ and θ lies in quadrant IV, find

$$\cos \theta$$

P 74. If $\sec \theta = -\frac{9}{4}$ and θ lies in quadrant III, find

$$\tan \theta$$

P 95. Find two solutions of

$$\tan \theta = 1$$

where $0 \leq \theta \leq 2\pi$.