

## T/PC 4.3 Review

In Exercises 5–12, the point is on the terminal side of an angle in standard position. Determine the exact values of the six trigonometric functions of the angle.

5.  $(7, 24)$

7.  $(5, -12)$

9.  $(-4, 10)$

In Exercises 13–16, state the quadrant in which  $\theta$  lies.

13.  $\sin \theta < 0$  and  $\cos \theta < 0$

14.  $\sec \theta > 0$  and  $\cot \theta < 0$

15.  $\cot \theta > 0$  and  $\cos \theta > 0$

16.  $\tan \theta > 0$  and  $\csc \theta < 0$

In Exercises 17–24, find the values of the six trigonometric functions of  $\theta$ .

| Function Value                    | Constraint        |
|-----------------------------------|-------------------|
| 17. $\tan \theta = -\frac{15}{8}$ | $\sin \theta < 0$ |
| 18. $\cos \theta = \frac{8}{17}$  | $\tan \theta < 0$ |
| 19. $\cot \theta = -3$            | $\cos \theta > 0$ |
| 20. $\csc \theta = 4$             | $\cot \theta < 0$ |
| 21. $\sec \theta = -2$            | $\sin \theta > 0$ |

In Exercises 29–36, evaluate the trigonometric function of the quadrant angle.

29.  $\sec \pi$

31.  $\cot \frac{3\pi}{2}$

33.  $\sec 0$

35.  $\cot \pi$

In Exercises 53–66, evaluate the sine, cosine, and tangent of the angle without using a calculator.

53.  $225^\circ$

57.  $-240^\circ$

59.  $\frac{5\pi}{3}$