4.3B Exercises

Find the exact value of each expression. If undefined, write undefined. (Examples 7 and 8)

45.
$$\cos \frac{11\pi}{3}$$

46.
$$\tan\left(-\frac{5\pi}{4}\right)$$

50.
$$\sec \frac{3\pi}{2}$$

51.
$$\cot\left(-\frac{5\pi}{6}\right)$$

52.
$$\csc \frac{17\pi}{6}$$

53.
$$\tan \frac{5\pi}{3}$$

54.
$$\sec \frac{7\pi}{6}$$

55.
$$\sin\left(-\frac{5\pi}{3}\right)$$

56.
$$\cos \frac{7\pi}{4}$$

57.
$$\tan \frac{14\pi}{3}$$

58.
$$\cos\left(-\frac{19\pi}{6}\right)$$

Use the given values to evaluate the trigonometric functions.

67.
$$\cos(-\theta) = \frac{8}{11}$$
; $\cos \theta = ?$; $\sec \theta = ?$

68.
$$\sin(-\theta) = \frac{5}{9}$$
; $\sin \theta = ?$; $\csc \theta = ?$

69.
$$\sec \theta = \frac{13}{12}$$
; $\cos \theta = ?$; $\cos(-\theta) = ?$

70.
$$\csc \theta = \frac{19}{17}$$
; $\sin \theta = ?$; $\sin(-\theta) = ?$