

**5.7, #10,11,14,21,28,29:** Find the exact values of the following.

(a).  $\sin^{-1} \frac{3}{2}$

(b).  $\arcsin\left(-\frac{\sqrt{2}}{2}\right)$

(c).  $\sin^{-1} \frac{\sqrt{2}}{2} - \sin^{-1}(-1)$ .

(d).  $\arccos(-\sqrt{3})$ .

(e).  $\cos^{-1}\left(-\frac{\sqrt{3}}{2}\right)$ .

(f).  $\tan^{-1}(-1) + \tan^{-1}(\sqrt{3})$

**5.7, #38:** Given that  $\sin \theta = -\frac{4}{5}$  and  $180^\circ < \theta < 270^\circ$ , express  $\theta$  in terms of inverse trig functions, then use a calculator to approximate the degree measure of  $\theta$ .

**5.7, #49,50,52,55,57:** Find the exact values of the following.

(a).  $\sin^{-1}\left(\sin \frac{5\pi}{4}\right)$

(b).  $\sin\left[\sin^{-1}\left(-\frac{1}{2}\right)\right]$ .

(c).  $\arccos\left(\cos \frac{11\pi}{6}\right)$ .

(d).  $\tan^{-1}\left(\tan \frac{2\pi}{3}\right)$

(e).  $\tan[\arctan(-\pi)]$

**5.7, #61,62,66,69:** Find the exact values of the following.

(a).  $\tan\left[\sin^{-1}\left(-\frac{2}{3}\right)\right]$

(b).  $\sin\left[\cos^{-1}\left(-\frac{2}{3}\right)\right]$

(c).  $\cos[\tan^{-1}(-1)]$

(d).  $\tan\left[\cos^{-1}\left(-\frac{5}{6}\right)\right]$

**5.7, #71,74:** Write the following expressions algebraically (no trig or inverse trig functions).

(a).  $\cos\left(\sin^{-1} \frac{x}{\sqrt{25+x^2}}\right)$  for  $x > 0$ .

(b).  $\tan(\sin^{-1} x)$  for  $|x| < 1$

**5.7, #80:** A group of campers hikes down a steep path. One member of the group has an altimeter on his watch to measure altitude. If the path is 1250 yards and the amount of altitude lost is 480 yards, what is the angle of incline? Round to the nearest tenth of a degree.

