

**Section 6.4**

Find the exact value of each expression.

A.  $\csc\left[\cos^{-1}\left(-\frac{1}{2}\right)\right]$

B.  $\sec\left[\tan^{-1}\left(-\frac{3}{7}\right)\right]$

C.  $\cot\left[\sin^{-1}\left(-\frac{\sqrt{11}}{5}\right)\right]$

D.  $\sin\left[\tan^{-1}(-4)\right]$

**Section 7.2**

Find the exact value of each expression.

E.  $\cos\left(\tan^{-1}\frac{1}{2}-\sin^{-1}\frac{8}{9}\right)$

F.  $\sin\left[\cos^{-1}\left(-\frac{2}{7}\right)+\tan^{-1}6\right]$

G.  $\sin\left[\tan^{-1}\left(-\frac{5}{6}\right)-\sin^{-1}\left(-\frac{2}{5}\right)\right]$

**Section 7.3**

Find the exact value of each expression.

H.  $\sin\left(2\sin^{-1}\frac{11}{12}\right)$

I.  $\cos\left[2\tan^{-1}\left(-\frac{7}{3}\right)\right]$

J.  $\sin\left[2\cos^{-1}\left(-\frac{2}{9}\right)\right]$

**Answers**

A.  $\frac{2}{\sqrt{3}}$     B.  $\frac{\sqrt{58}}{7}$     C.  $-\frac{\sqrt{14}}{\sqrt{11}}$     D.  $-\frac{4}{\sqrt{17}}$     E.  $\frac{2\sqrt{17}+8}{9\sqrt{5}}$     F.  $\frac{3\sqrt{5}-12}{7\sqrt{37}}$

G.  $\frac{-5\sqrt{21}+12}{5\sqrt{61}}$     H.  $\frac{11\sqrt{23}}{72}$     I.  $-\frac{20}{29}$     J.  $-\frac{4\sqrt{77}}{81}$