Sec Math 3 Honors

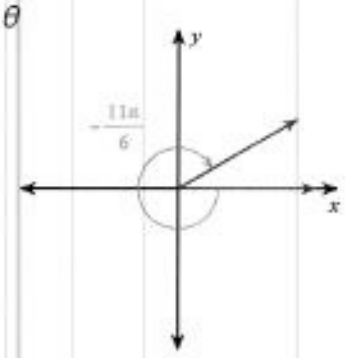
Name Key

11-2 Evaluating Trig Values

Period____

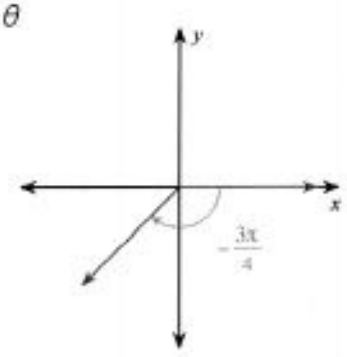
Find the exact value of each trigonometric function.

1) cot θ



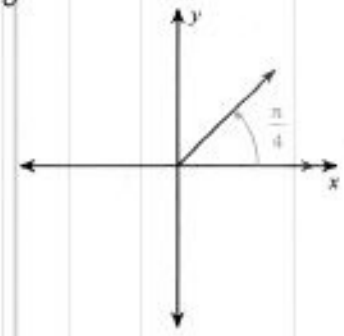
$\sqrt{3}$

2) cos θ



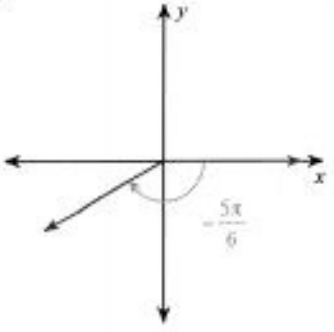
$-\frac{\sqrt{2}}{2}$

3) cos θ



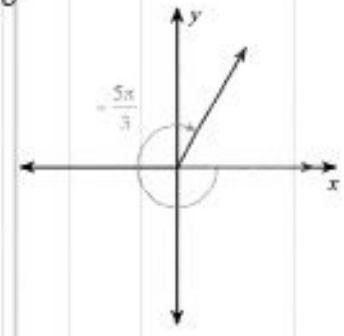
$\frac{\sqrt{2}}{2}$

4) sec θ



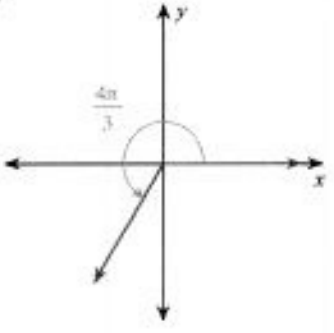
$-\frac{2\sqrt{3}}{3}$

5) cos θ



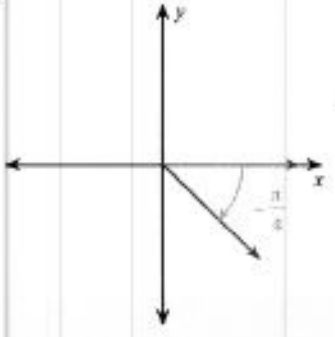
$\frac{1}{2}$

6) sec θ



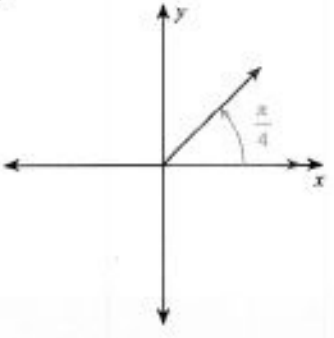
-2

7) sin θ



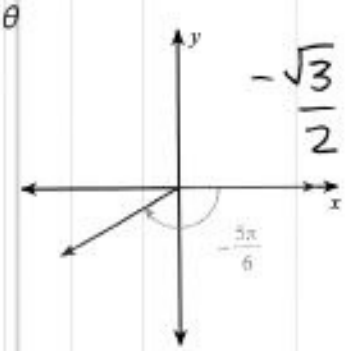
$-\frac{\sqrt{2}}{2}$

8) sec θ



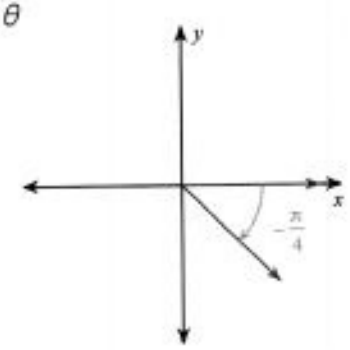
$\sqrt{2}$

9) $\cos\theta$



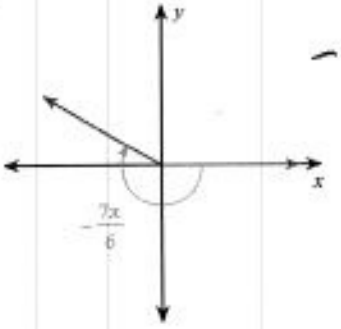
$-\frac{\sqrt{3}}{2}$

10) $\csc\theta$



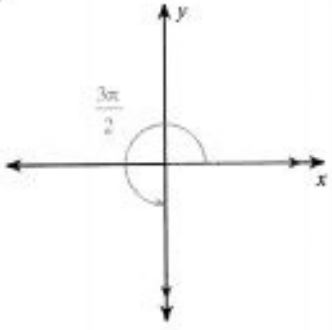
$-\sqrt{2}$

11) $\cos\theta$



$-\frac{\sqrt{3}}{2}$

12) $\cos\theta$



0

Find the exact value of each expression.

13) $\sec^{-1} -1 \rightarrow \cos^{-1}(-1) = \pi$

14) $\cot^{-1}\frac{\sqrt{3}}{3} = \tan^{-1}(\sqrt{3}) = \pi/3, 4\pi/3$

15) $\tan^{-1} 0 = 0, \pi$

16) $\cot^{-1} -\frac{\sqrt{3}}{3} = \tan^{-1}(-\sqrt{3}) = \frac{2\pi}{3}, \frac{5\pi}{3}$

17) $\sec^{-1}\sqrt{2} = \cos^{-1}\left(\frac{\sqrt{2}}{2}\right) = \pi/4, \frac{7\pi}{4}$

18) $\csc^{-1} 2 = \sin^{-1}\left(\frac{1}{2}\right) = \pi/6, 5\pi/6$

19) $\sin^{-1}\left(-\frac{\sqrt{3}}{2}\right) = \frac{4\pi}{3}, \frac{5\pi}{3}$

20) $\cos^{-1}\left(-\frac{1}{2}\right) = \frac{2\pi}{3}, \frac{4\pi}{3}$

21) $\csc^{-1}(1) = \sin^{-1}(1) = \pi/2$

22) $\tan^{-1}\frac{\sqrt{3}}{3} = \pi/6, 7\pi/6$

23) $\sec^{-1}\left(\frac{2\sqrt{3}}{3}\right) = \cos^{-1}\left(-\frac{\sqrt{3}}{2}\right) = \frac{5\pi}{6}, \frac{7\pi}{6}$

24) $\sin^{-1}(-1) = \frac{3\pi}{2}$