

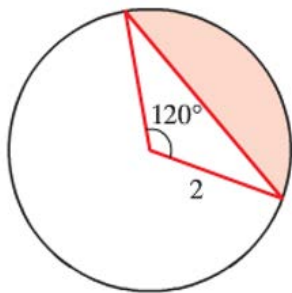
5.3 In-class Practice

- Find the values of the six trigonometric functions of angle whose terminal side passes through the given point.
 - $P(3,7)$
 - $P(-2,3)$
- Evaluate (*without a calculator*).
 - $\sin 180^\circ$
 - $\cos 270^\circ$
 - $\tan 180^\circ$
 - $\sec 90^\circ$
 - $\csc 90^\circ$
 - $\cot 90^\circ$
- Let θ be an angle in standard position. State the quadrant in which the terminal side of θ lies.
 - $\sin \theta > 0, \cos \theta > 0$
 - $\tan \theta < 0, \sin \theta < 0$
 - $\cos \theta < 0, \tan \theta < 0$
 - $\sin \theta < 0, \cos \theta < 0$
- Given the information, find the exact value of the indicated function.
 - $\sec \theta = \frac{2\sqrt{3}}{3}, \frac{3\pi}{2} < \theta < 2\pi$; find $\sin \theta$
 - $\sin \theta = -\frac{1}{2}$ and $\cos \theta < 0$; find $\tan \theta$
- Find the reference angle in degrees or radians.
 - 75°
 - -120°
 - 315°
 - 150°
 - $\frac{\pi}{3}$
 - $\frac{7\pi}{6}$
 - $\frac{11\pi}{4}$
 - $-\frac{11\pi}{6}$
 - $\frac{5\pi}{3}$
- Find the exact value of the expression.
 - $\cos 210^\circ$
 - $\sec 300^\circ$
 - $\tan 570^\circ$
 - $\sin \frac{3\pi}{4}$
 - $\cot\left(-\frac{\pi}{4}\right)$
 - $\tan \frac{5\pi}{6}$
 - $\cos \frac{\pi}{4} \tan \frac{\pi}{6} + 2 \tan \frac{\pi}{3}$
 - $2 \csc \frac{\pi}{4} - \sec \frac{\pi}{3} \cos \frac{\pi}{6}$
- Given the information, find the values of the remaining trig functions of θ .
 - $\cos \theta = -\frac{7}{12}, \theta \in \text{QIII}$
 - $\tan \theta = -\frac{3}{4}, \cos \theta > 0$
 - $\csc \theta = 2, \theta \in \text{QII}$
 - $\cot \theta = -\frac{1}{4}, \sin \theta > 0$
- Find all values of $\theta \in [0, 2\pi)$ satisfying the given equation.
 - $\tan \theta = -1$
 - $\cos \theta = \frac{1}{2}$
 - $\tan \theta = -\frac{\sqrt{3}}{3}$
 - $\sec \theta = -\frac{2\sqrt{3}}{3}$

5.3 In-class Practice

9. Find the area of the shaded region.

a)



b)

