

Unit 03-01 - Evaluating Trig Inverse Functions

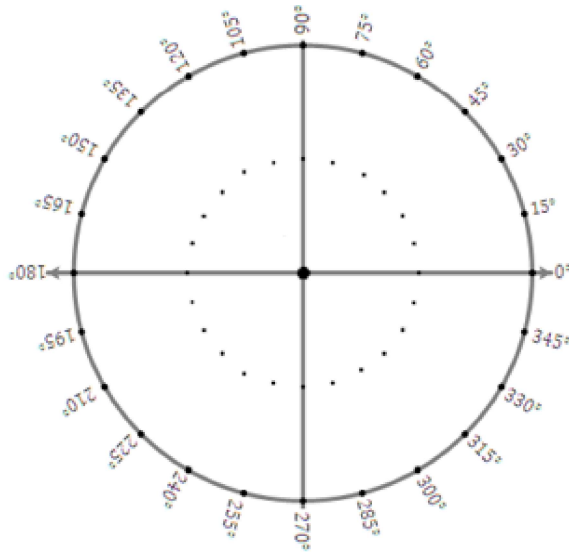
Multiple Choice

Identify the choice that best completes the statement or answers the question.

_____ 1.

Determine the value (*in degrees*) of the following expression:

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

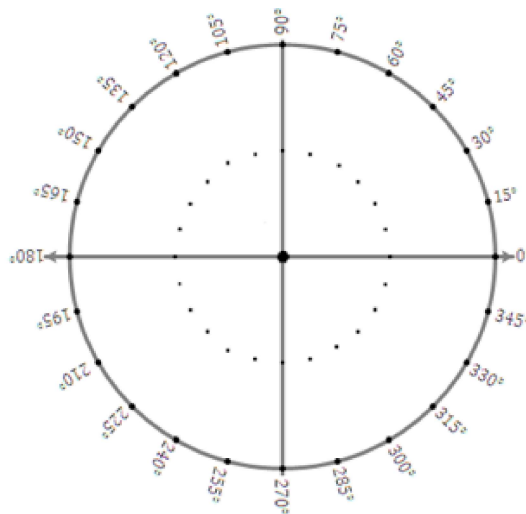


- a. 30° b. 150° c. 240° d. -30°

_____ 2.

Determine the value (*in degrees*) of the following expression:

$$\sin^{-1}\left(-\frac{\sqrt{2}}{2}\right)$$



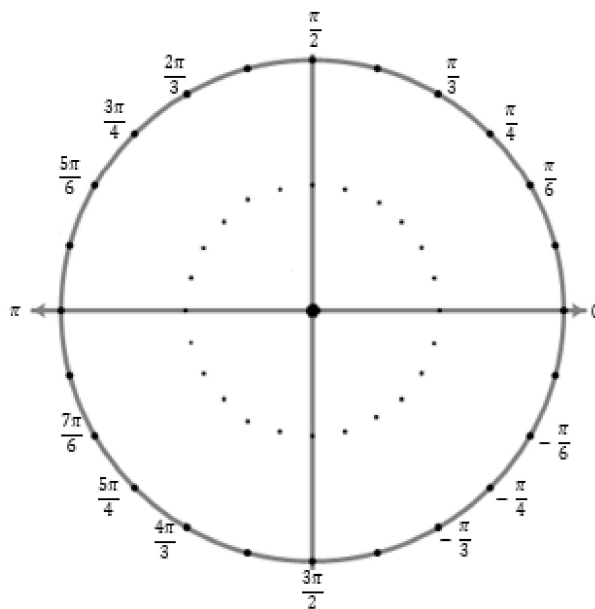
(Hint: Remember $-\frac{1}{\sqrt{2}} = -\frac{\sqrt{2}}{2}$)

- a. 45° c. 225°
 b. 135° d. -45°

3.

Determine the value (*in radians*) of the following expression:

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



a. $-\frac{\pi}{3}$

b. $\frac{\pi}{3}$

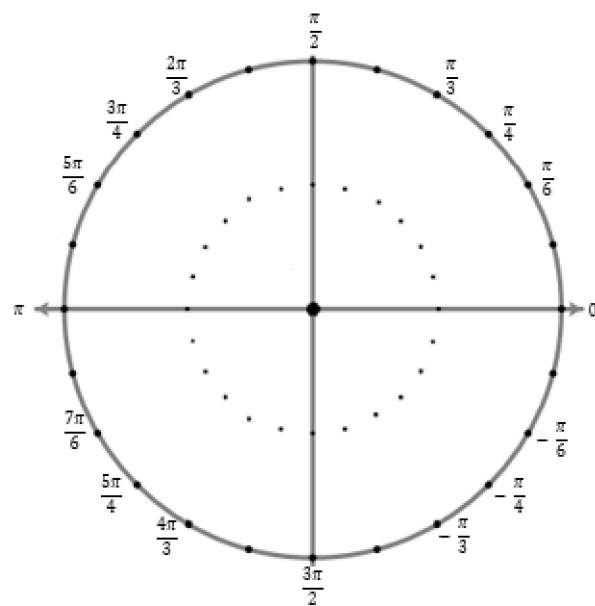
c. $\frac{2\pi}{3}$

d. $\frac{4\pi}{3}$

4.

Determine the value (*in radians*) of the following expression:

$$\sin^{-1}\left(-\frac{1}{2}\right)$$



a. $\frac{\pi}{6}$

b. $\frac{5\pi}{6}$

c. $\frac{7\pi}{6}$

d. $-\frac{\pi}{6}$

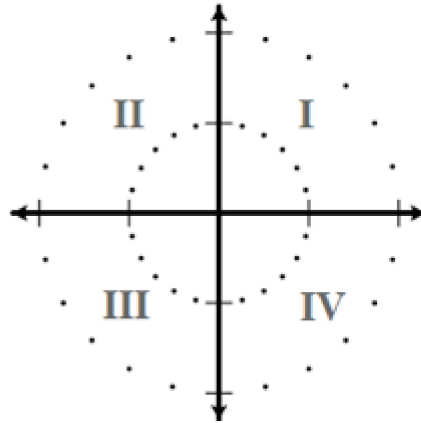
_____ 5. Determine the approximate value (*in radians*) of the following expression (*using your calculator*):

$$\sin^{-1}(0.74)$$

- a. ≈ 0.674
- b. ≈ 0.737
- c. ≈ 0.738
- d. ≈ 0.833

_____ 6. Which two quadrants are included in the **range** or output of the following function?

$$f(x) = \cos^{-1}(x)$$



- a. Quadrants I and II
- b. Quadrants I and IV
- c. Quadrants II and III
- d. Quadrants III and IV