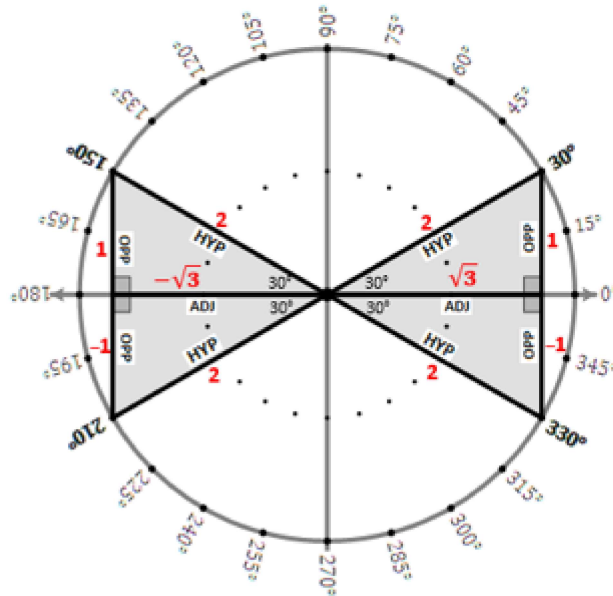


Unit 03-02 - Basic Trigonometric Equations**Multiple Choice**

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

- _____ 1. What are all of the values (in degrees) of θ between 0° and 360° that would satisfy the following statement?

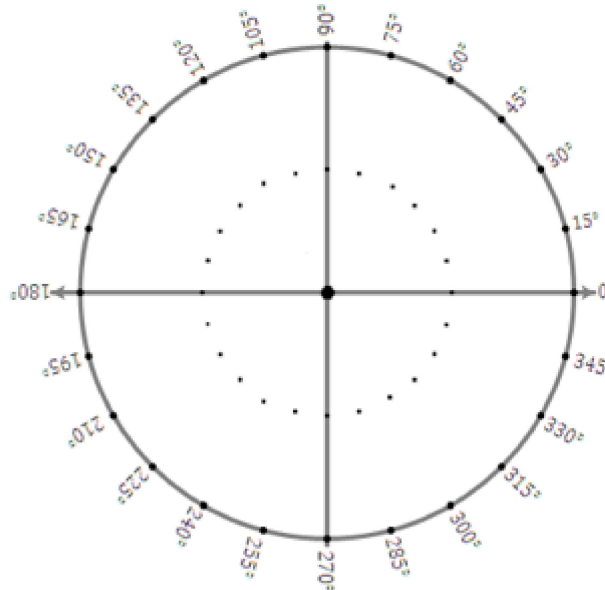
$$\sin(\theta) = -\frac{1}{2}$$



- a. 30° and 330°
 b. 150° and 210°
 c. 30° and 150°
 d. 210° and 330°

- _____ 2. What are all of the values (in degrees) of θ between 0° and 360° that would satisfy the following statement?

$$\sqrt{2} \cos(\theta) = 1$$



- a. 45° and 135°
 b. 45° and 315°
 c. 135° and 225°
 d. 225° and 315°

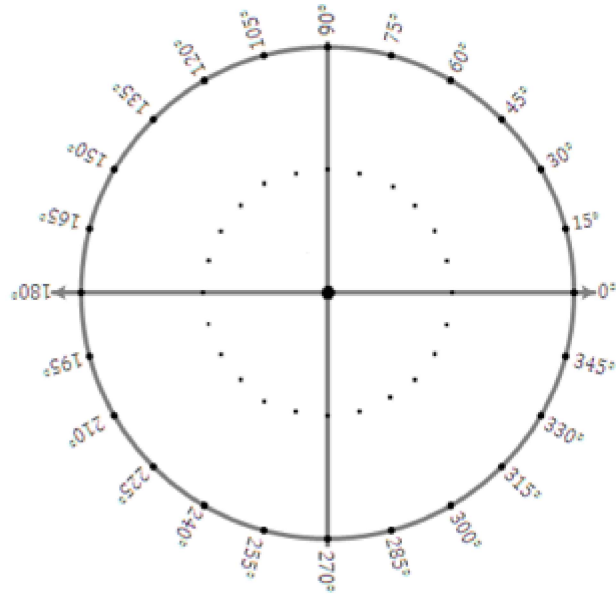
Name: _____

ID: A

3.

What are all of the values (*in degrees*) of θ from 0° to 360° (i.e. $0^\circ \leq \theta \leq 360^\circ$) that would satisfy the following statement?

$$\cos(\theta) = 0$$



- a. 90° only
- b. 0° and 90°

- c. 90° and 270°
- d. 90° , 270° , and 360°

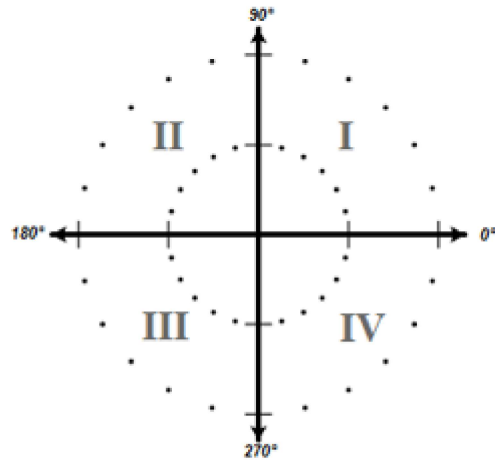
4.

Which quadrant would the angle θ be in given:

$$\sin(\theta) < 0$$

and

$$\tan(\theta) < 0$$



- a. Quadrant I
- b. Quadrant II

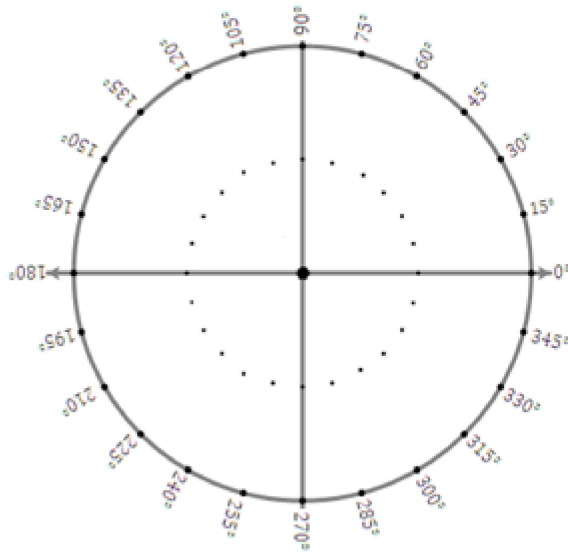
- c. Quadrant III
- d. Quadrant IV

5.

What are all of the values (in degrees) of θ between 0° and 360° that would satisfy the following statement?

$$\sin(\theta) = 0.82$$

Use your calculator and be sure your calculator mode is set to Degrees.



- a. $\theta \approx 55^\circ$ or $\theta \approx 125^\circ$
 b. $\theta \approx 55^\circ$ or $\theta \approx 135^\circ$

- c. $\theta \approx 55^\circ$ or $\theta \approx 235^\circ$
 d. $\theta \approx 55^\circ$ or $\theta \approx 305^\circ$

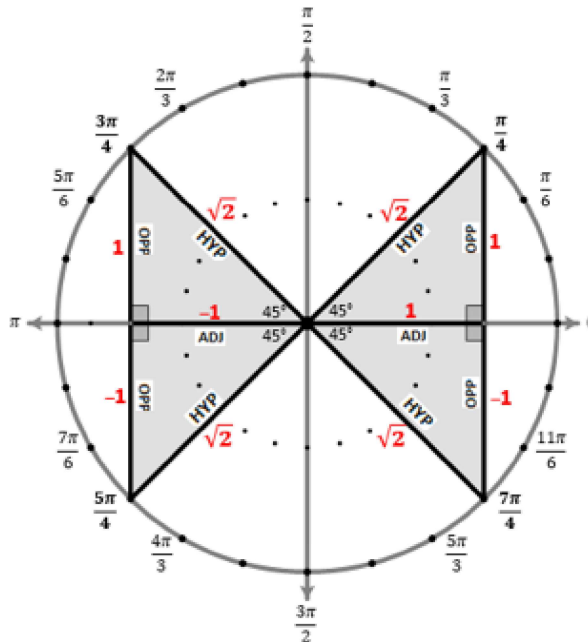
Multiple Response

Identify one or more choices that best complete the statement or answer the question.

6.

What are all of the values (in radians) of x between 0 and 2π that would satisfy the following statement?

$$\cos(x) = \frac{\sqrt{2}}{2}$$



- a. $\frac{\pi}{4}$ b. $\frac{3\pi}{4}$ c. $\frac{5\pi}{4}$ d. $\frac{7\pi}{4}$

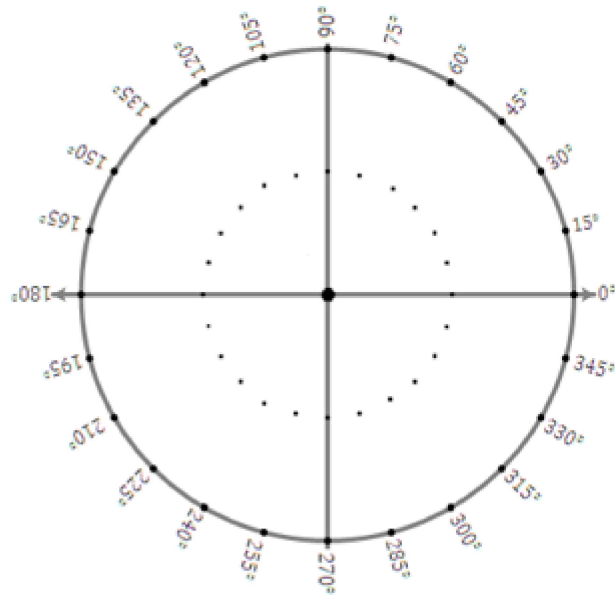
7.

What are all of the values (in degrees) of θ from 0° to 360° (i.e. $0^\circ \leq \theta \leq 360^\circ$) that would satisfy the following statement?

$$\sin(\theta) = 1$$

- a. 0°
- b. 90°
- c. 180°

- d. 270°
- e. 360°



Completion

Complete each statement.

8.

What are all of the values (in degrees) of θ between 0° and 360° that would satisfy the following statement?

$$\tan(\theta) = \sqrt{3}$$

In the blank list only the **larger** of the 2 possible solutions (just list the number only and no degree symbol).

