

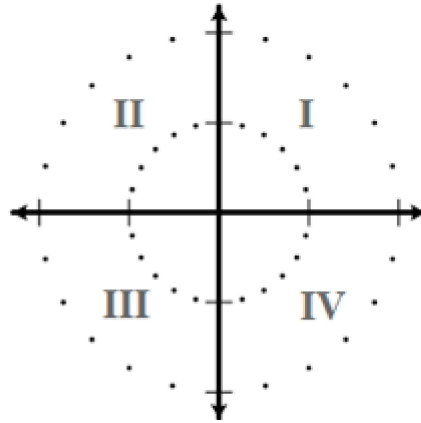
Unit 03-03 - Sample Quiz - Inverse Trig Graphs

Multiple Choice

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

- _____ 1. Which two quadrants are included in the **range** of the following function?

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



- a. Quadrants I and II
b. Quadrants I and IV
c. Quadrants II and III
d. Quadrants III and IV
- _____ 2. What is the correct **domain** of the following function?

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

- a. $[0, 1]$
b. $[-1, 1]$
c. $[-\pi, \pi]$
d. $(-\infty, \infty)$

- _____ 3. What is the correct **range** of the following function?

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

- a. $0 \leq f(x) \leq \pi$
b. $-\pi \leq f(x) \leq \pi$
c. $-\frac{\pi}{2} \leq f(x) \leq \frac{\pi}{2}$
d. All Reals ($\mathbb{R}$)

- _____ 4. Determine the value of the following (degrees) :

$$\sin^{-1}(\sin(135^\circ))$$

- a. -45°
b. 45°
c. 135°
d. 225°

Name: _____

ID: A

_____ 5. Determine the value of the following (*radians*) :

$$\cos^{-1}\left(\cos\left(\frac{5\pi}{4}\right)\right)$$

a. $-\frac{\pi}{4}$

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

b. $\frac{\pi}{4}$

d. $\frac{5\pi}{4}$

_____ 6. Which of the below has a different value than the rest? (*radians*)

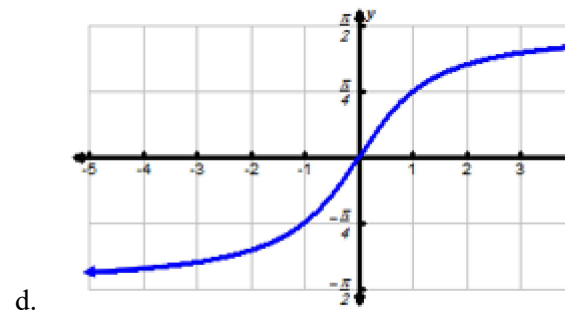
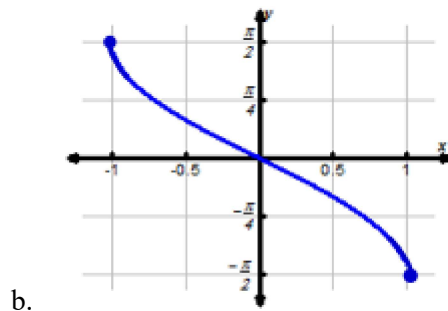
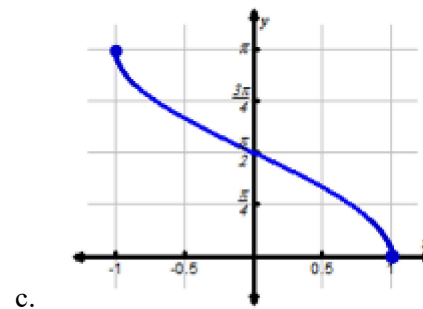
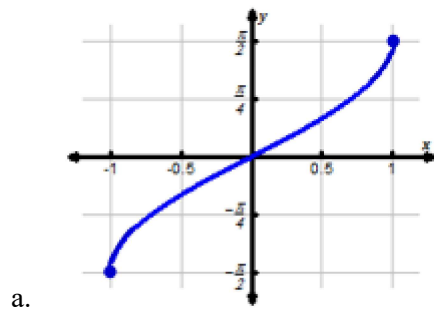
a. $\sin^{-1}\left(\sin\left(\frac{2\pi}{3}\right)\right)$

c. $\cos^{-1}\left(\cos\left(\frac{4\pi}{3}\right)\right)$

b. $\sin^{-1}\left(\sin\left(\frac{\pi}{3}\right)\right)$

d. $\cos^{-1}\left(\cos\left(\frac{5\pi}{3}\right)\right)$

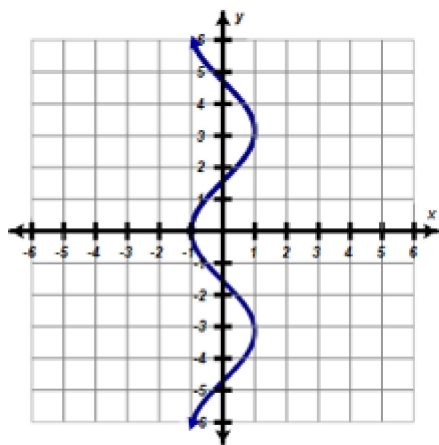
_____ 7. Which of the below graphs shows the function $f(x) = \sin^{-1}(x)$?



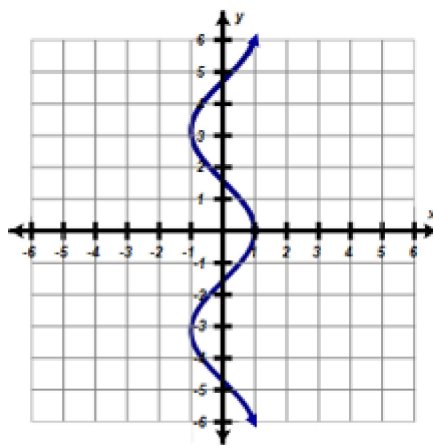
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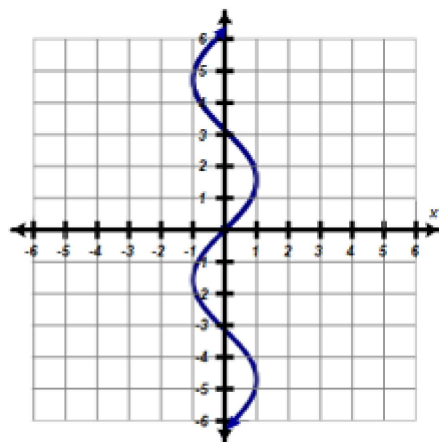
- _____ 8. Which of the below graphs shows the relation that would represent the complete inverse of the function $f(x) = \cos(x)$?



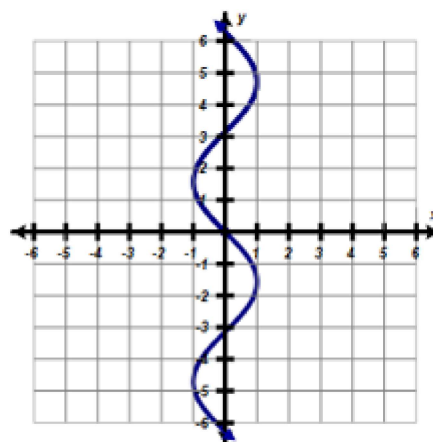
a.



c.



b.



d.