

## 5.5 Trigonometry short version

Name \_\_\_\_\_

**SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.**

**Determine the amplitude or period as requested.**

1) Amplitude of  $y = -\frac{1}{4} \sin x$

1) \_\_\_\_\_

2) Period of  $y = -\frac{1}{2} \sin x$

2) \_\_\_\_\_

**Determine the phase shift of the function.**

3)  $y = -2 \sin\left(\frac{1}{4}x - \frac{\pi}{4}\right)$

3) \_\_\_\_\_

4)  $y = \frac{1}{4} \sin(3x + \pi)$

4) \_\_\_\_\_

5)  $y = 3 \cos\left(-3x - \frac{\pi}{3}\right)$

5) \_\_\_\_\_

6)  $y = \frac{1}{2} \sin(\pi x + 5)$

6) \_\_\_\_\_

**Determine the amplitude or period as requested.**

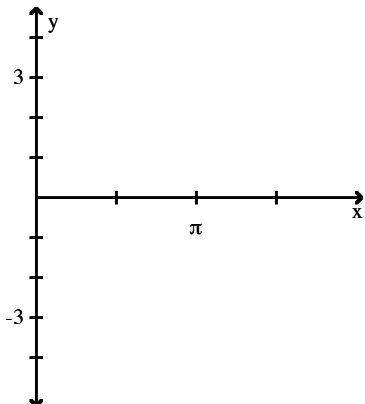
7) Period of  $y = 5 \sin\left(7x - \frac{\pi}{2}\right)$

7) \_\_\_\_\_

**Graph the function and  $y = \sin x$  in the same rectangular system for  $0 \leq x \leq 2\pi$ .**

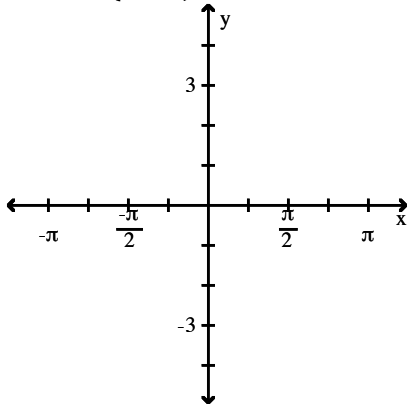
8)  $y = \frac{1}{3} \sin x$

8) \_\_\_\_\_



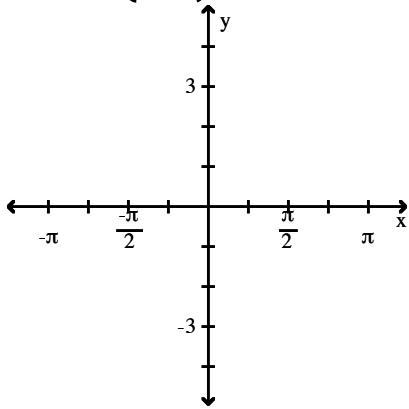
Graph the function.

9)  $y = 4 \sin\left(x - \frac{\pi}{4}\right)$



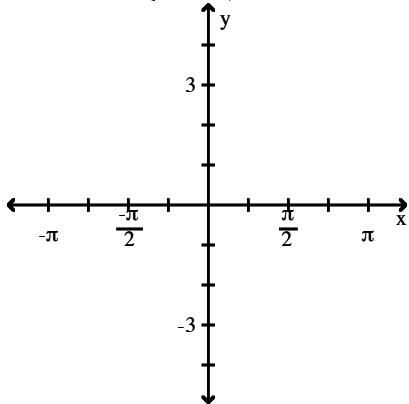
9) \_\_\_\_\_

10)  $y = \frac{3}{4} \cos\left(x + \frac{\pi}{3}\right)$



10) \_\_\_\_\_

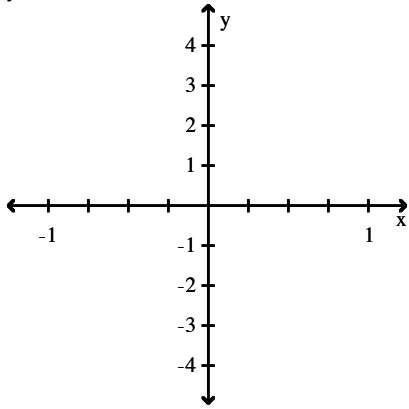
11)  $y = -\frac{1}{3} \cos\left(2x + \frac{\pi}{4}\right)$



11) \_\_\_\_\_

12)  $y = -3 \sin(4\pi x - 3)$

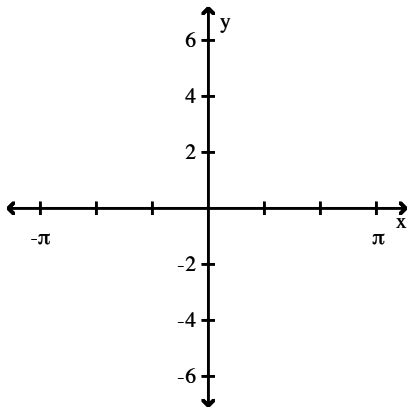
12) \_\_\_\_\_



Use a vertical shift to graph the function.

13)  $y = -2 \cos\left(2x - \frac{\pi}{2}\right) + 2$

13) \_\_\_\_\_

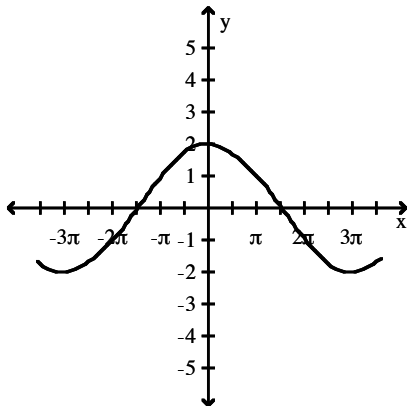


**MULTIPLE CHOICE.** Choose the one alternative that best completes the statement or answers the question.

Find an equation for the graph.

14)

14) \_\_\_\_\_



A)  $y = 3 \cos 2x$

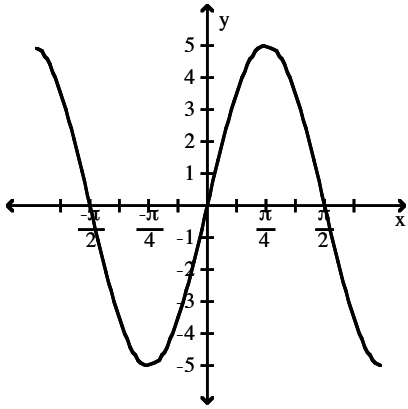
B)  $y = 2 \cos \frac{1}{3}x$

C)  $y = 2 \cos 3x$

D)  $y = 3 \cos \frac{1}{2}x$

15)

15) \_\_\_\_\_



A)  $y = 5 \sin \frac{1}{2}x$

B)  $y = 2 \sin \frac{1}{5}x$

C)  $y = 2 \sin 5x$

D)  $y = 5 \sin 2x$

Answer Key

Testname: TRIGONOMETRY 5.5 SHORT VERSION

1)  $\frac{1}{4}$

2)  $2\pi$

3)  $\pi$  units to the right

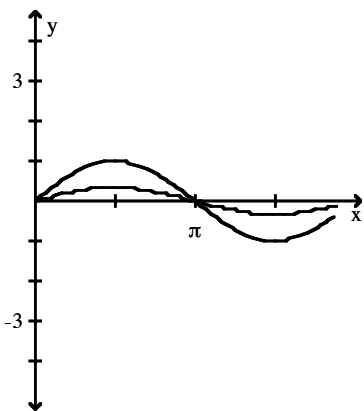
4)  $\frac{\pi}{3}$  units to the left

5)  $\frac{\pi}{9}$  units to the left

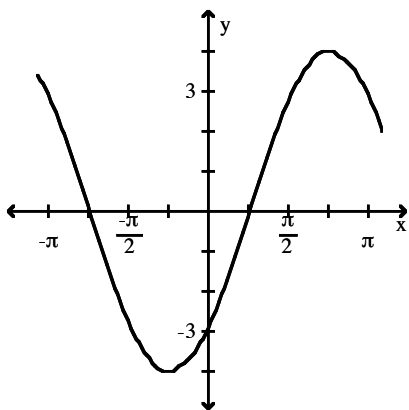
6)  $\frac{5}{\pi}$  units to the left

7)  $\frac{2\pi}{7}$

8)



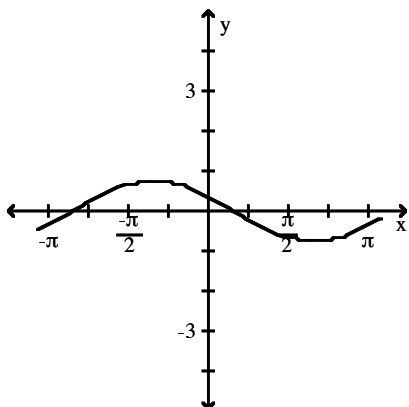
9)



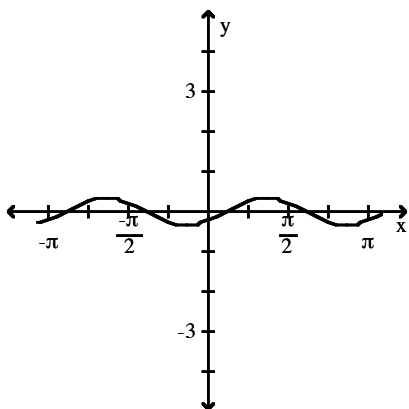
Answer Key

Testname: TRIGONOMETRY 5.5 SHORT VERSION

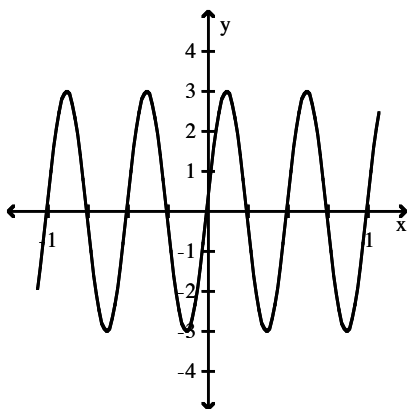
10)



11)



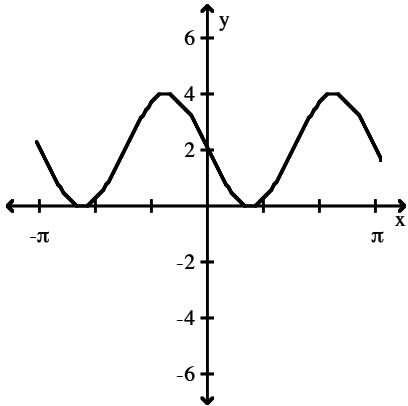
12)



Answer Key

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13)



14) B

15) D