

Sec 3 Test Review 6

Part 1: Matching

NO GRAPHING CALCULATOR on the test. Late work DUE, test day.

Match the following equations with their graphs: (each one matches exactly one graph)

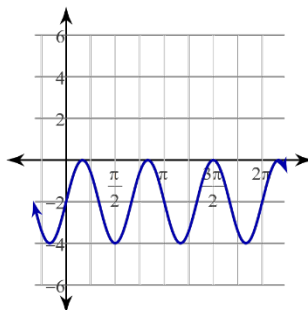
1. $y = 2\sin 3x - 2$

2. $y = 2\sin 3x + 2$

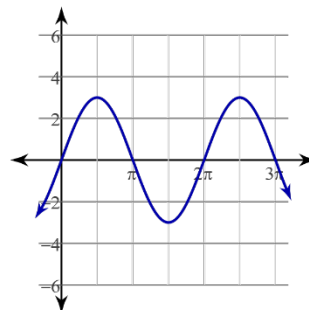
3. $y = 3\sin x$

4. $y = 3\sin 2x - 2$

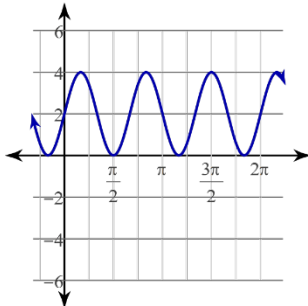
A)



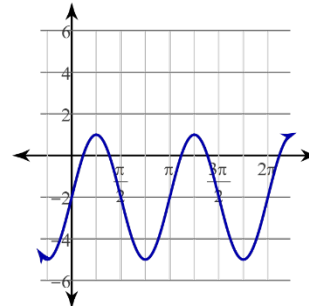
B)



C)



D)



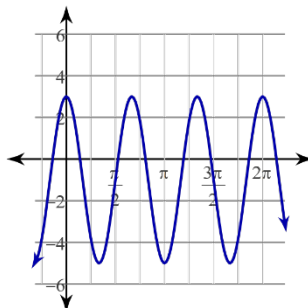
5. $y = 4\cos 3x + 1$

6. $y = 4\cos 3x - 1$

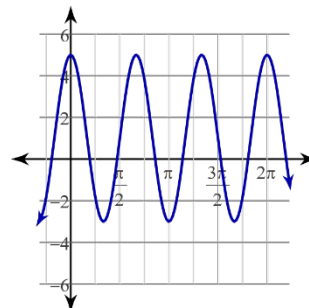
7. $y = 3\cos 4x + 1$

8. $y = \cos 3x$

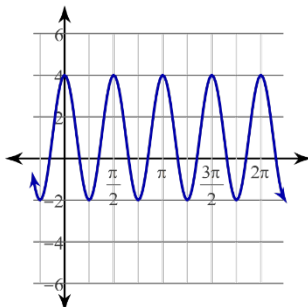
A)



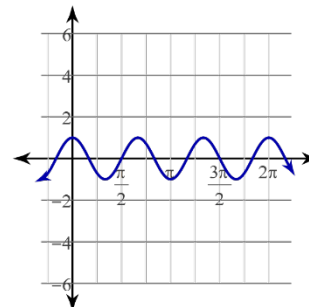
B)



C)



D)



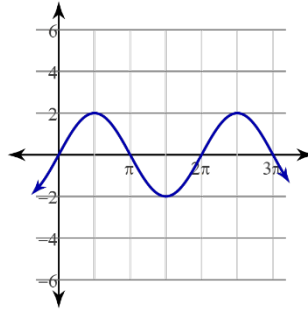
9. $y = \frac{1}{2}\sin 2x - 2$

10. $y = \frac{1}{2}\sin 2x + 2$

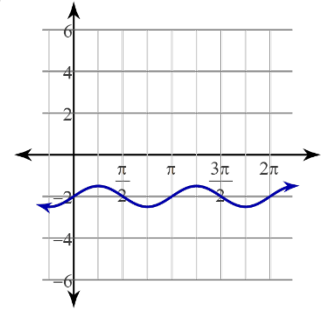
11. $y = 2\sin x$

12. $y = 2\sin\left(\frac{1}{2}x\right) - 2$

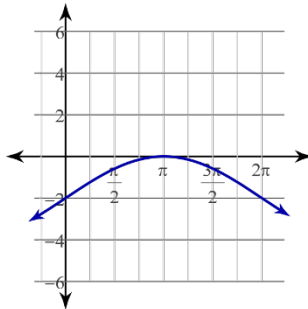
A)



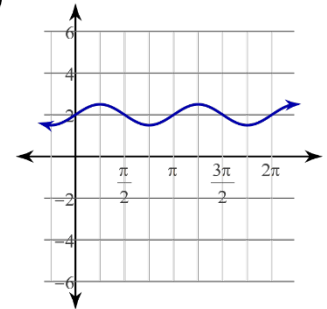
B)



C)



D)



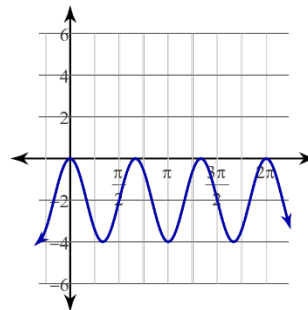
13. $y = 2\cos 3x - 2$

14. $y = 2\cos 3x + 2$

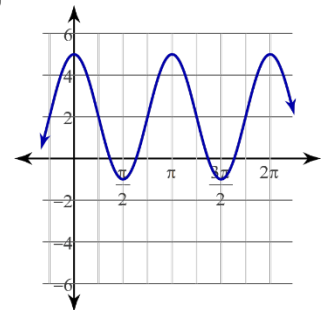
15. $y = 3\cos 2x + 2$

16. $y = \frac{1}{2}\cos x$

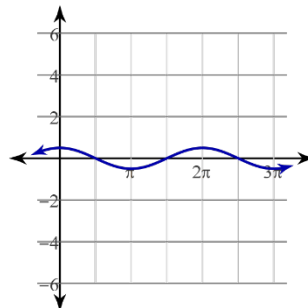
A)



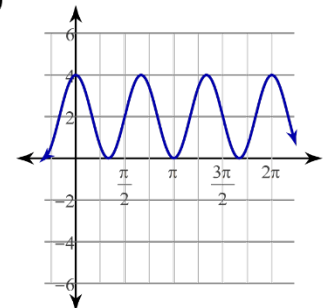
B)



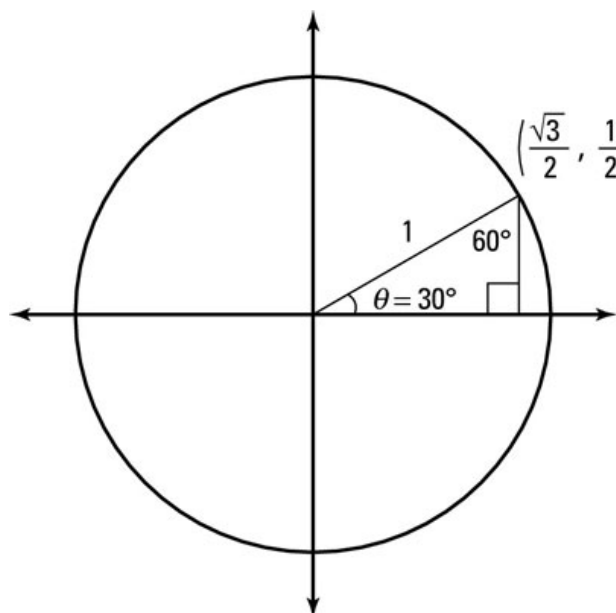
C)



D)

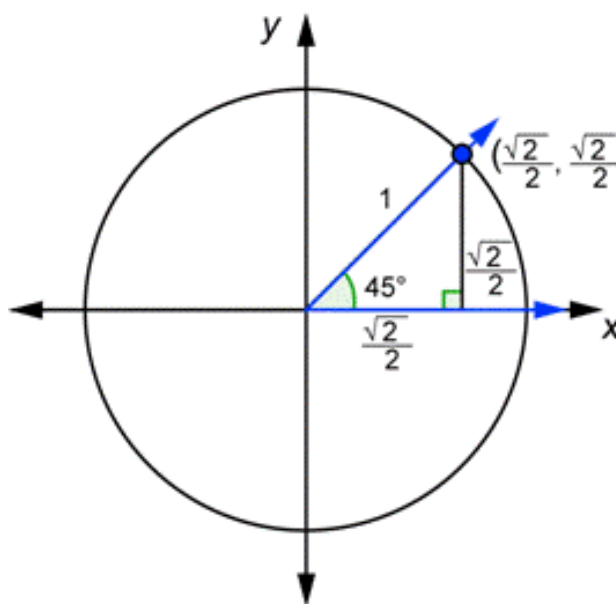


Use the given graphic below to match questions 17-20: (some may be used more than once or not at all)



17. $\sin 60 =$ _____ a. $\frac{1}{2}$
 18. $\cos 30 =$ _____ b. $-\frac{1}{2}$
 19. $\sin \frac{11\pi}{6} =$ _____ c. $\frac{\sqrt{3}}{2}$
 20. $\cos \frac{4\pi}{3} =$ _____ d. $-\frac{\sqrt{3}}{2}$

Use the given graphic below to match questions 21-24: (some may be used more than once or not at all)



21. $\sin 135 =$ _____ a. 0
 22. $\cos 45 =$ _____ b. 1
 23. $\sin \frac{\pi}{4} =$ _____ c. $\frac{\sqrt{2}}{2}$
 24. $\cos \frac{5\pi}{4} =$ _____ d. $-\frac{\sqrt{2}}{2}$

For the given trig function, state which of the following angle(s) between 0 and 2π produce this value:

25. $\sin \theta = -\frac{\sqrt{3}}{2}$

- A) $\left\{ \frac{5\pi}{3} \right\}$ B) $\left\{ \frac{4\pi}{3}, \frac{5\pi}{3} \right\}$
 C) $\left\{ 0, \pi, \frac{5\pi}{3} \right\}$ D) $\{0\}$

26. $\sin \theta = \frac{\sqrt{2}}{2}$

- A) $\left\{ \frac{\pi}{4}, \frac{7\pi}{6} \right\}$ B) $\left\{ \frac{\pi}{4}, \frac{3\pi}{4} \right\}$
 C) $\left\{ \frac{3\pi}{4} \right\}$ D) $\left\{ \frac{\pi}{4}, \frac{11\pi}{6} \right\}$

Test Review 6: Trig Graphs (part 2)

Convert each degree measure into radians.

27) 110°

- A) $\frac{11\pi}{9}$ B) $\frac{19\pi}{36}$
 C) $\frac{11\pi}{18}$ D) $\frac{7\pi}{12}$

28) 120°

- A) $\frac{19\pi}{36}$ B) $\frac{2\pi}{3}$
 C) $\frac{25\pi}{36}$ D) $\frac{4\pi}{3}$

Convert each radian measure into degrees.

29) $\frac{\pi}{6}$

- A) 40° B) 30°
 C) 35° D) 20°

30) $\frac{13\pi}{12}$

- A) 210° B) 390°
 C) 205° D) 195°

Find the amplitude of each function.

31) $y = 6\cos 7\theta + 4$

- A) 6 B) 1
 C) $\frac{1}{4}$ D) 7

32) $y = 2\cos 6\theta + 5$

- A) 2 B) 1
 C) 6 D) $\frac{1}{6}$

Using radians, find the period of each function.

33) $y = \frac{1}{4} \cdot \sin 7\theta - 1$

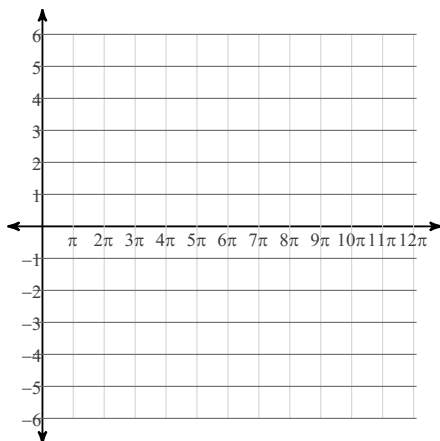
- A) 8π B) $\frac{2\pi}{7}$
 C) π D) 12π

34) $y = \sin 2\theta + 5$

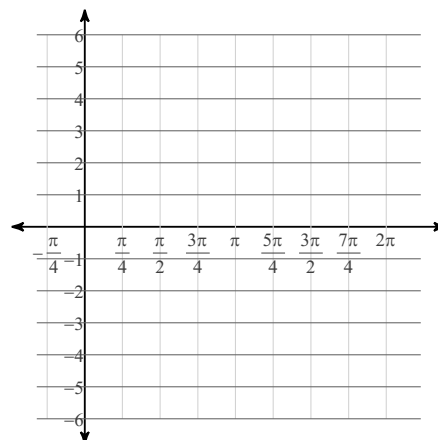
- A) 14π B) $\frac{\pi}{4}$
 C) π D) $\frac{\pi}{3}$

Graph each function using radians.

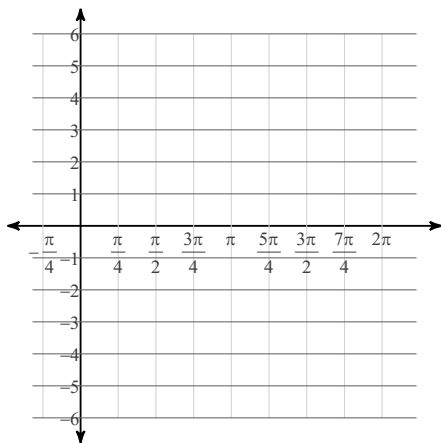
35) $y = -2 + 3\sin \frac{\theta}{4}$



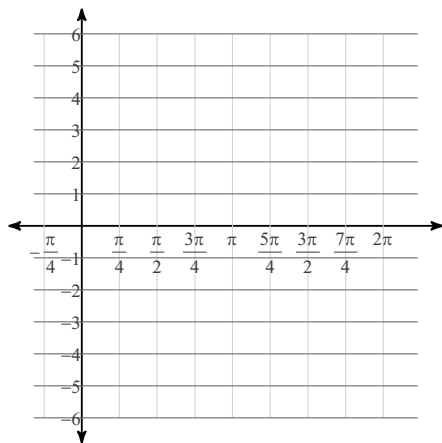
36) $y = \sin 3\theta + 2$



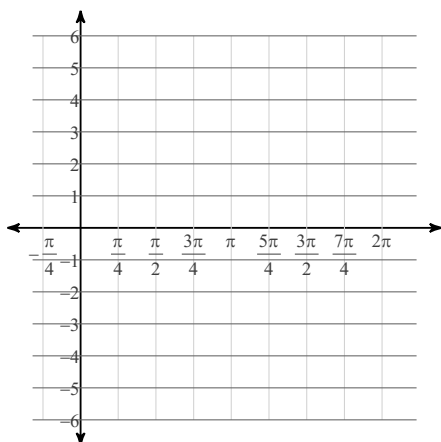
37) $y = 2\cos 3\theta + 1$



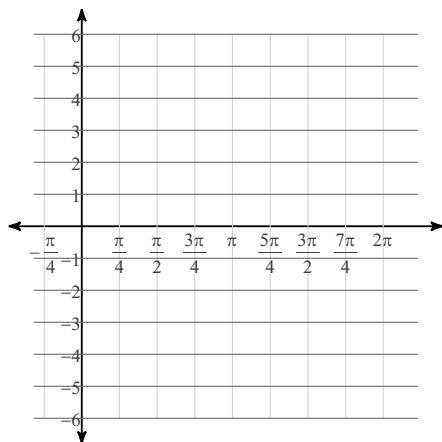
38) $y = 4\cos 3\theta - 2$



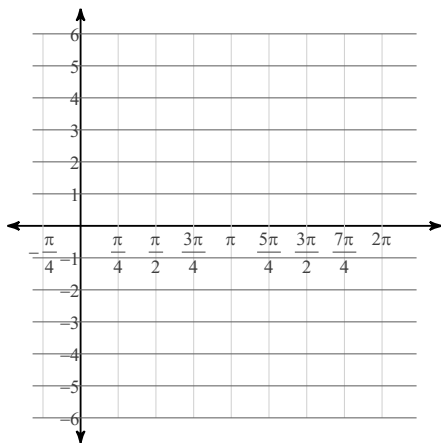
39) $y = \frac{1}{2} \cdot \sin 4\theta - 2$



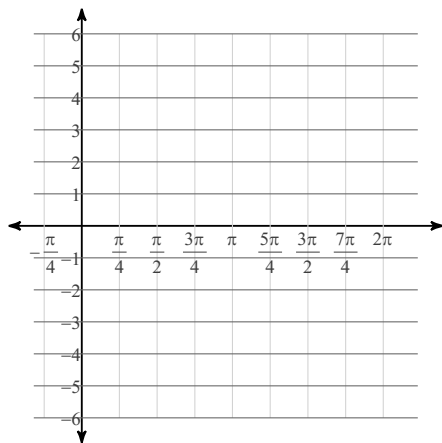
40) $y = 4\cos 3\theta + 1$



41) $y = \sin\left(2\theta - \frac{\pi}{4}\right) + 1$



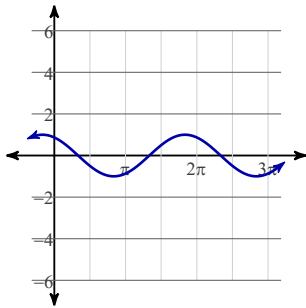
42) $y = \frac{1}{2} \cdot \cos\left(3\theta - \frac{7\pi}{4}\right) + 1$



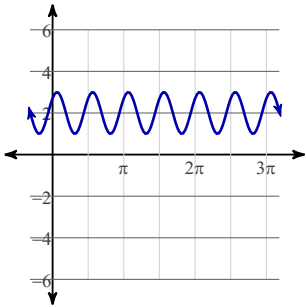
Multiple Choice: Select the Graph that has the correctly shifted graph.

43) $y = 2 + 4\cos\left(\theta - \frac{\pi}{4}\right)$

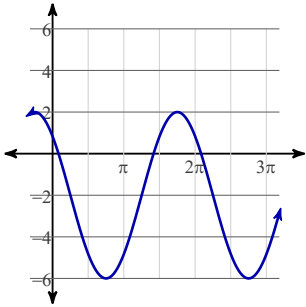
A)



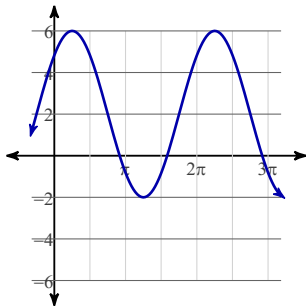
B)



C)

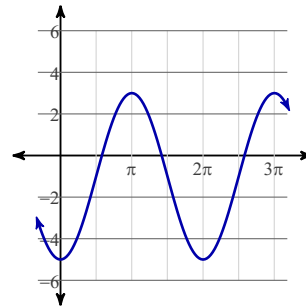


D)

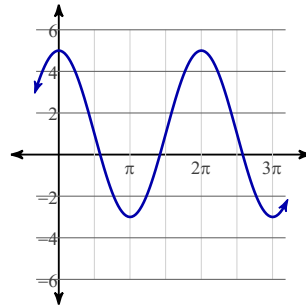


44) $y = 4\sin\left(\theta - \frac{\pi}{2}\right) - 1$

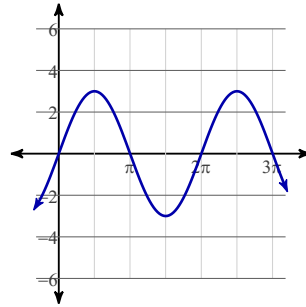
A)



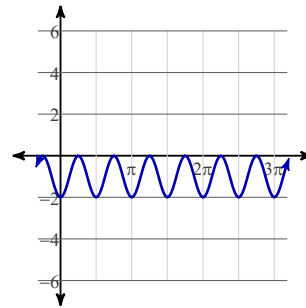
B)



C)



D)



Answers to Test Review 6: Trig Graphs (part 2)

27) C

28) B

29) B

30) D

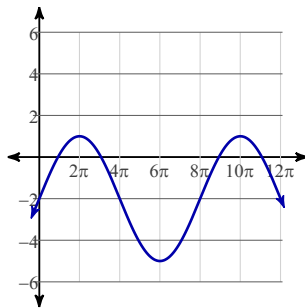
31) A

32) A

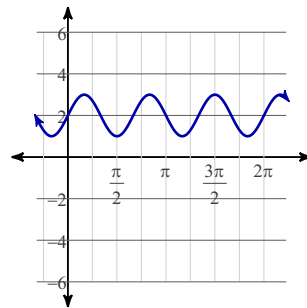
33) B

34) C

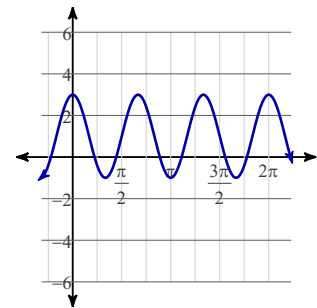
35)



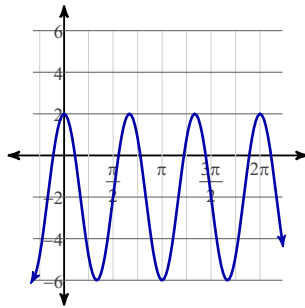
36)



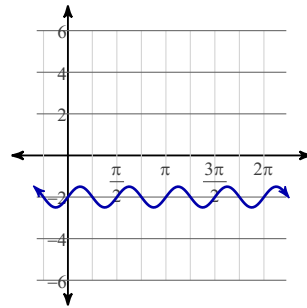
37)



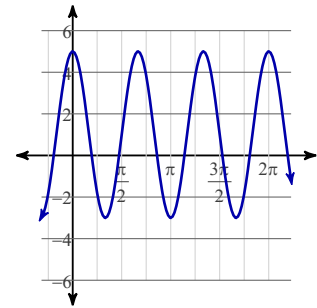
38)



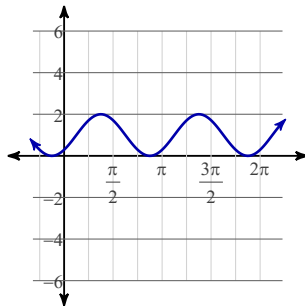
39)



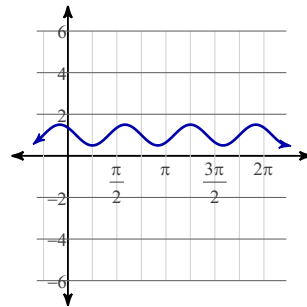
40)



41)



42)



43) D

44) A