

## Sec 3 Test Review 6

Part 1: Matching

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

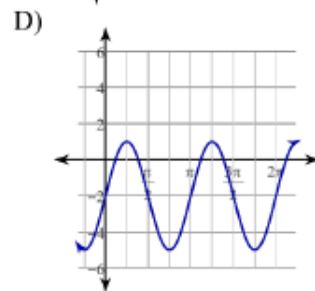
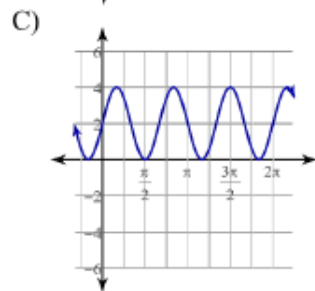
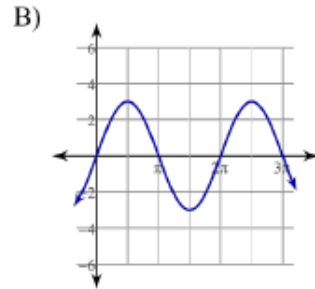
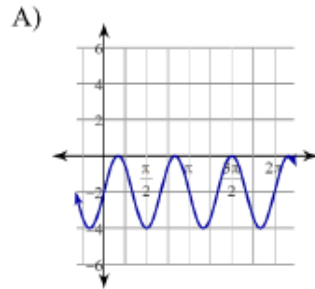
Match the following equations with their graphs: (each one matches exactly one graph)

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

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

3.  $y = 3\sin x$  **B**

4.  $y = 3\sin 2x$  **D**

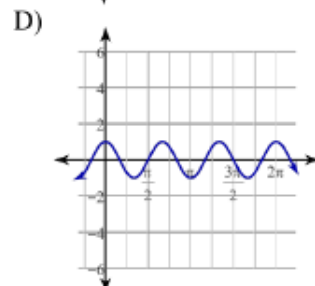
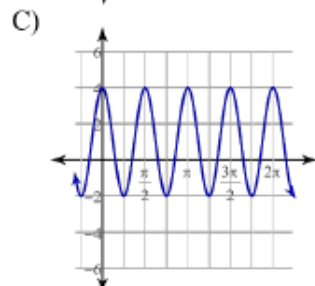
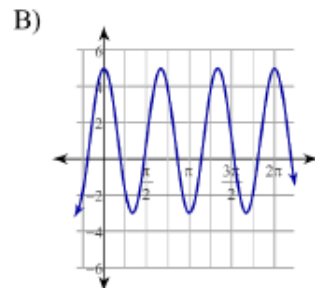
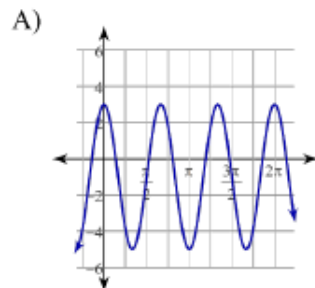


5.  $y = 4\cos 3x + 1$  **A**

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

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

8.  $y = \cos 3x$  **D**

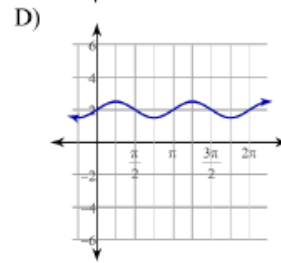
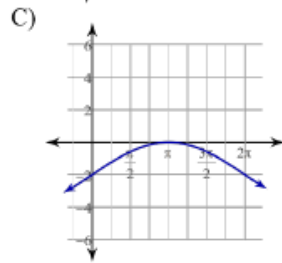
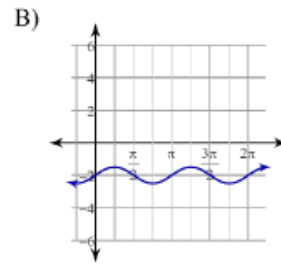
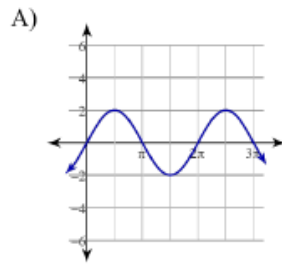


9.  $y = \frac{1}{2}\sin 2x - 2$  **B**

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

11.  $y = 2\sin x$  **A**

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

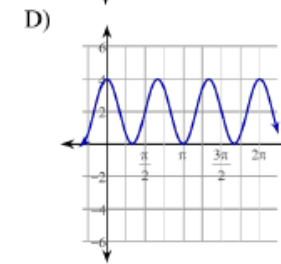
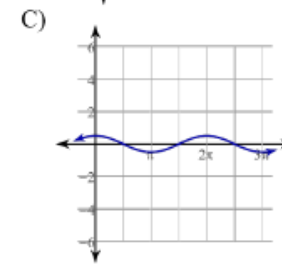
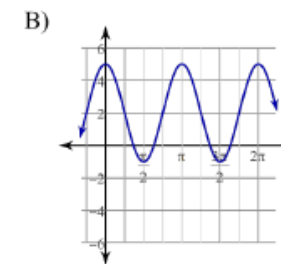
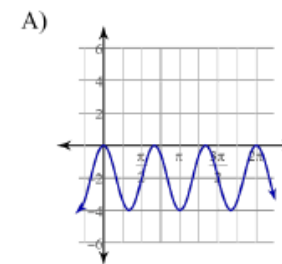


13.  $y = 2\cos 3x - 2$  **A**

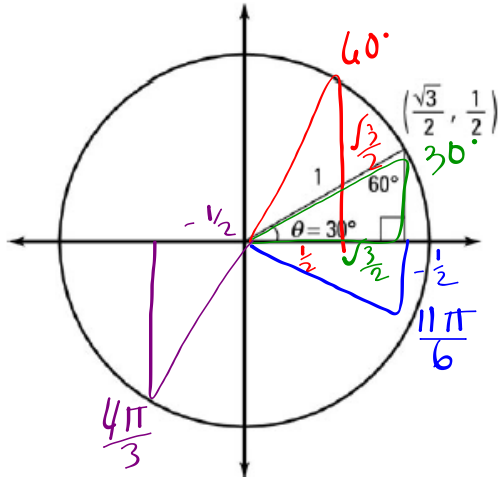
14.  $y = 2\cos 3x + 2$  **D**

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

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



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



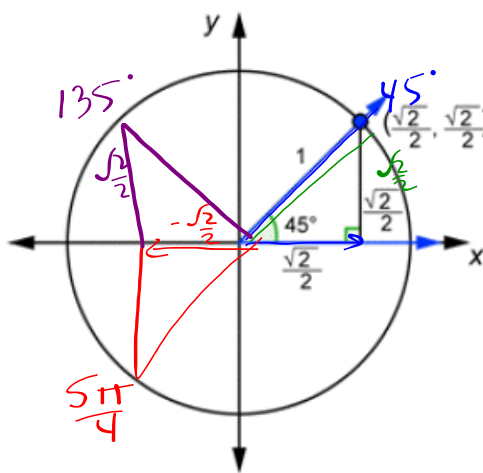
17.  $\sin 60 = \underline{c. \frac{\sqrt{3}}{2}}$  a.  $\frac{1}{2}$

18.  $\cos 30 = \underline{c. \frac{\sqrt{3}}{2}}$  b.  $-\frac{1}{2}$

19.  $\sin \frac{11\pi}{6} = \underline{b. -\frac{1}{2}}$  c.  $\frac{\sqrt{3}}{2}$

20.  $\cos \frac{4\pi}{3} = \underline{b. -\frac{1}{2}}$  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.  $\sin 135 = \underline{\frac{\sqrt{2}}{2} c.}$  a. 0

22.  $\cos 45 = \underline{\frac{\sqrt{2}}{2} c.}$  b. 1

23.  $\sin \frac{\pi}{4} = \underline{\frac{\sqrt{2}}{2} c.}$  c.  $\frac{\sqrt{2}}{2}$

24.  $\cos \frac{5\pi}{4} = \underline{-\frac{\sqrt{2}}{2} d.}$  d.  $-\frac{\sqrt{2}}{2}$

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

25.  $(\sin \theta) = -\frac{\sqrt{3}}{2}$  *height of  $-\frac{\sqrt{3}}{2}$*

A)  $\left\{ \frac{5\pi}{3} \right\}$  B)  $\left\{ \frac{4\pi}{3}, \frac{5\pi}{3} \right\}$  (circled)

C)  $\left\{ 0, \pi, \frac{5\pi}{3} \right\}$  D)  $\{0\}$

26.  $(\sin \theta) = \frac{\sqrt{2}}{2}$  *height of  $\frac{\sqrt{2}}{2}$*

A)  $\left\{ \frac{\pi}{4}, \frac{7\pi}{6} \right\}$  B)  $\left\{ \frac{\pi}{4}, \frac{3\pi}{4} \right\}$  (circled)

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

© 2017 Kuta Software LLC. All rights reserved.

Test Review 6: Trig Graphs (part 2)

Convert each degree measure into radians.

27)  $110^\circ$

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

28)  $120^\circ$

- 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)  $40^\circ$
- B)  $30^\circ$
- C)  $35^\circ$
- D)  $20^\circ$

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

- A)  $210^\circ$
- B)  $390^\circ$
- C)  $205^\circ$
- D)  $195^\circ$

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

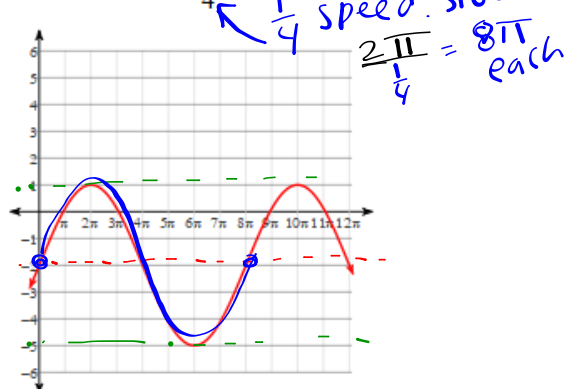
- A)  $8\pi$
- B)  $\frac{2\pi}{7}$
- C)  $\pi$
- D)  $12\pi$

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

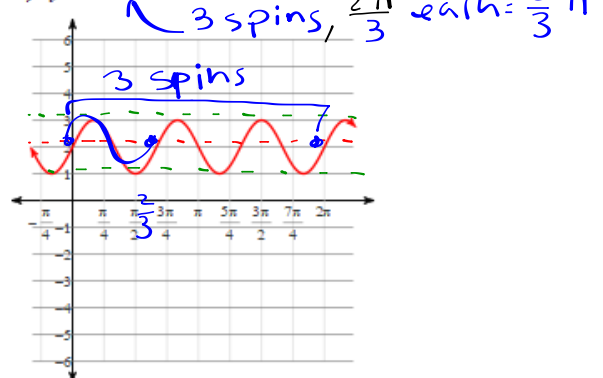
- A)  $14\pi$
- B)  $\frac{\pi}{4}$
- C)  $\pi$
- D)  $\frac{\pi}{3}$

Graph each function using radians.

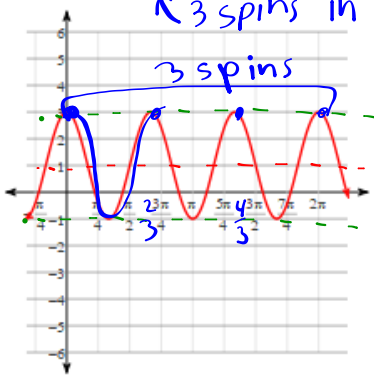
35)  $y = -2 + 3\sin \frac{\theta}{4}$



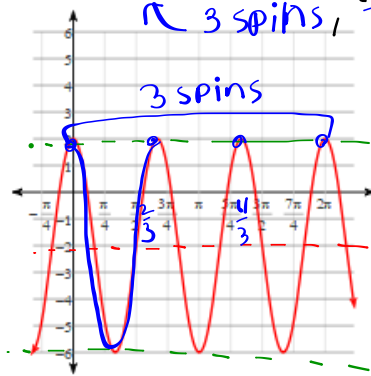
36)  $y = \sin 3\theta + 2$



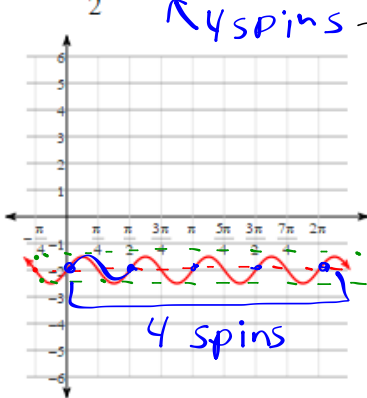
37)  $y = 2\cos 3\theta + 1$



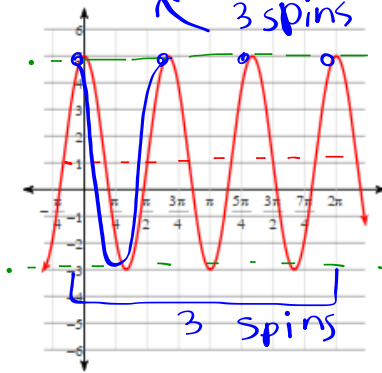
38)  $y = 4\cos 3\theta - 2$



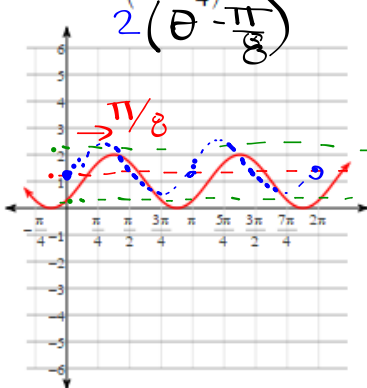
39)  $y = \frac{1}{2} \cdot \sin 4\theta - 2$



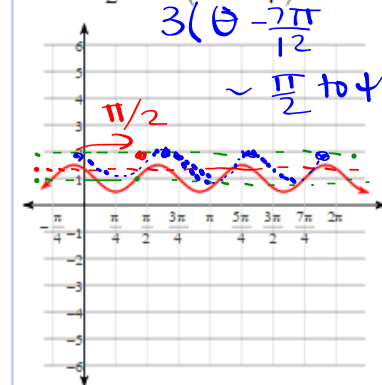
40)  $y = -4\cos 3\theta + 1$



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



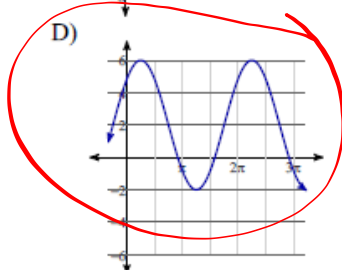
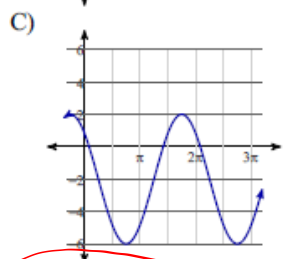
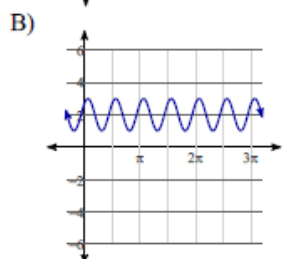
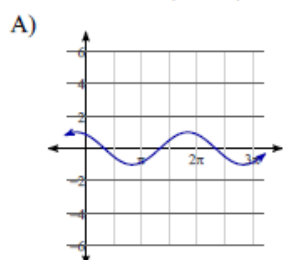
~~42)  $y = \frac{1}{2} \cdot \cos\left(3\theta - \frac{7\pi}{4}\right) + 1$~~



TOO difficult. Sorry

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

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



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

