

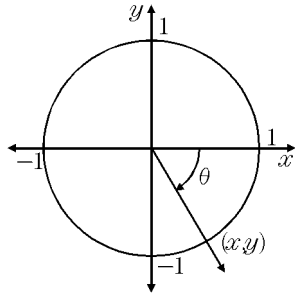
Standard Unit 7 Review

Name: _____

Date: _____

1. In the accompanying diagram of a unit circle, the ordered pair (x, y) represents the point where the terminal side of θ intersects the unit circle. If $\theta = -\frac{\pi}{3}$, what is the value of y ?

- A. $-\frac{\sqrt{3}}{2}$
 B. $-\frac{\sqrt{2}}{2}$
 C. $-\sqrt{3}$
 D. $-\frac{1}{2}$



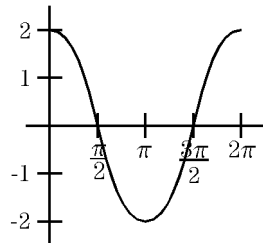
2. In standard position, an angle of $\frac{7\pi}{3}$ radians has the same terminal side as an angle of

- A. 60° B. 120°
 C. 240° D. -420°

3. What is the value of $\tan \frac{\pi}{3} + \cos \pi$?

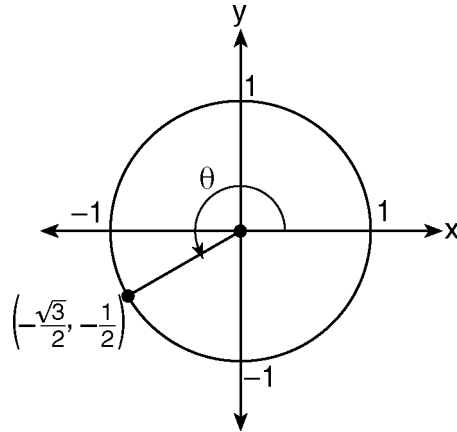
- A. $\frac{\sqrt{3} + 3}{3}$ B. $\frac{\sqrt{3} - 3}{3}$
 C. $\sqrt{3} - 1$ D. $\sqrt{3} + 1$

4. Which trigonometric function is shown in the graph shown?



- A. $f(x) = 2 \sin x$ B. $f(x) = 2 \cos x$
 C. $f(x) = \cos 2x$ D. $f(x) = \sin 2x$

5. In the accompanying diagram of a unit circle, the ordered pair $(-\frac{\sqrt{3}}{2}, -\frac{1}{2})$ represents the point where the terminal side of θ intersects the unit circle.



What is $m\angle\theta$?

- A. 210 B. 225 C. 233 D. 240

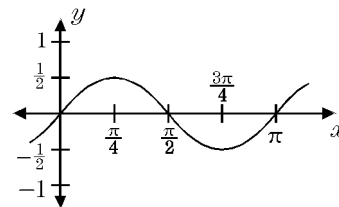
6. What is a positive coterminal angle to -670° ?

- A. -50° B. 570° C. 670° D. 50°

7. Which of the following could be a reference angle of -780° ?

- A. 210° B. -330°
 C. 60° D. 30°

8. Which equation is represented by the graph below?



- A. $y = 2 \sin \frac{1}{2}x$ B. $y = \frac{1}{2} \sin \frac{1}{2}x$
 C. $y = \frac{1}{2} \sin 2x$ D. $y = -\frac{1}{2} \cos 2x$

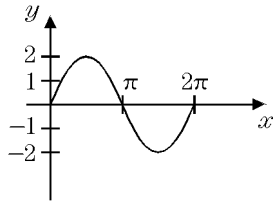
9. The number of degrees equal to $\frac{4}{9}\pi$ radians is
- A. 60 B. 80 C. 130 D. 270

10. What is 235° , expressed in radian measure?

- A. 235π B. $\frac{\pi}{235}$ C. $\frac{36\pi}{47}$ D. $\frac{47\pi}{36}$

11. Which is an equation of the graph shown below?

- A. $y = \sin 2x$
 B. $y = 2 \cos x$
 C. $y = \cos 2x$
 D. $y = 2 \sin x$



12. What is the amplitude of the graph of the equation $y = 2 \sin \frac{1}{2}x$?

- A. $\frac{1}{2}$ B. 2 C. π D. 2π

13. What is the period of the graph for the equation $y = \cos 2x$?

- A. π B. 2 C. 3 D. 4π

14. What is the period of the graph of the equation $y = 3 \cos 2x$?

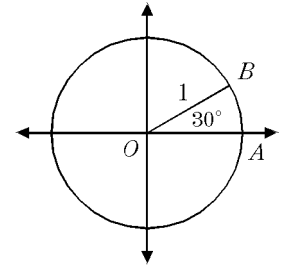
- A. π B. 2 C. 3 D. 2π

15. What is the minimum value of $f(\theta)$ in the equation $f(\theta) = 3 \sin 4\theta$?

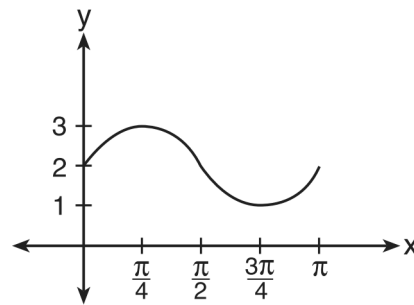
- A. -1 B. -2 C. -3 D. -4

16. In the accompanying diagram, the center of circle O is at the origin, radius $OB = 1$, and $m\angle AOB = 30^\circ$. What are the coordinates of point B ?

- A. $(\frac{1}{2}, \frac{\sqrt{3}}{2})$
 B. $(\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2})$
 C. $(\frac{\sqrt{3}}{2}, \frac{1}{2})$
 D. (1, 1)



17. The accompanying graph represents a portion of a sound wave.



Which equation best represents this graph?

- A. $y = 2 \sin \frac{1}{2}x$ B. $y = \sin \frac{1}{2}x + 2$
 C. $y = \sin 2x$ D. $y = \sin 2x + 2$

18. The value of $\sin \frac{7\pi}{6}$ is

- A. $\frac{1}{2}$ B. $-\frac{1}{2}$ C. $\frac{\sqrt{3}}{2}$ D. $-\frac{\sqrt{3}}{2}$

19. The value of $\sin(-210^\circ)$ is

- A. $\frac{\sqrt{3}}{2}$ B. $-\frac{\sqrt{3}}{2}$ C. $\frac{1}{2}$ D. $-\frac{1}{2}$

20. The value of $\sin \frac{\pi}{3} \cos \pi$ is

- A. $-\frac{\sqrt{3}}{2}$ B. $\frac{1}{2}$ C. $-\frac{1}{2}$ D. 0

21. What is the value of $\sin(-240^\circ)$?

- A. $\frac{1}{2}$ B. $-\frac{1}{2}$ C. $\frac{\sqrt{3}}{2}$ D. $-\frac{\sqrt{3}}{2}$

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1.
Answer: A
2.
Answer: A
3.
Answer: C
4.
Answer: B
5.
Answer: A
6.
Answer: D
7.
Answer: C
8.
Answer: C
9.
Answer: B
10.
Answer: D
11.
Answer: D
12.
Answer: B
13.
Answer: A
14.
Answer: A
15.
Answer: C
16.
Answer: C
17.
Answer: D
18.
Answer: B
19.
Answer: C
20.
Answer: A
21.
Answer: C