Pre-Calculus
Chapter 8
Trig WS Practice #3

Name _____
Period _____
A# _____

Know your unit circle! Find the value of each expression without using a calculator or unit circle.

1. $\sin 60^\circ$
2. $\cos 135^\circ$
3. $\sin \frac{3\pi}{4}$
4. $\cos\left(-\frac{\pi}{4}\right)$
5. $\sin 225^\circ$
6. $\cos 150^\circ$
7. $\cos 90^\circ$
8. $\cos\left(\frac{3\pi}{4}\right)$
9. $\sin \pi$

Solve each equation over the domain of $0^\circ \le \theta < 360^\circ$ without using a calculator.

10. $\cos\theta = \frac{1}{2}$
11. $\sin\theta = -\frac{1}{2}$
12. $\cos\theta = -\frac{\sqrt{3}}{2}$

Solve each equation over the domain of $0 \le x < 2\pi$ without using a calculator.

13. $\tan x = 1$
14. $\tan x = -1$
15. $\sin x = \frac{\sqrt{2}}{2}$

Solve the equation over the domain of $0^\circ \le \theta < 360^\circ$. Round answers to the nearest tenth of a degree.

16. $4\cos\theta + 8 = 5$
17. $5\sin 3\theta = 3$

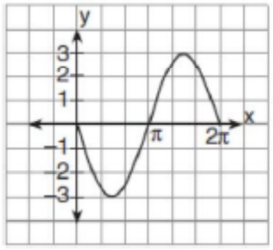
Solve the equation over the domain $0 \le x < 2\pi$. Round answers to the nearest tenth of a radian.

18. $4\sin x - 4 = -1$

19. $3\cos 2x = 1$

20.

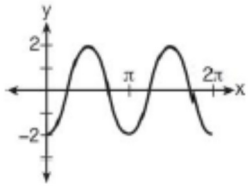
Which equation is represented on the graph shown below?



1) $y = 3\sin x$
2) $y = -3\sin x$
3) $y = 3\cos x$
4) $y = -\sin 3x$

21.

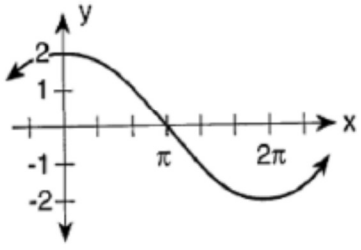
Which equation represents the graph below?



1) $y = -2\sin 2x$
2) $y = -2\sin\frac{1}{2}x$
3) $y = -2\cos 2x$
4) $y = -2\cos\frac{1}{2}x$

22.

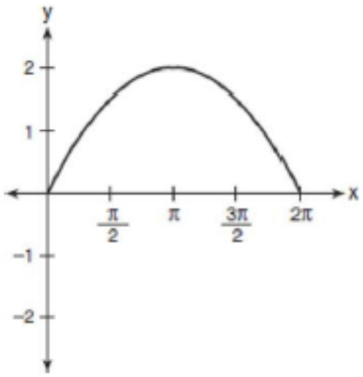
Which equation is represented in the graph below?



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

23.

Which equation is represented by the accompanying graph?



1) $y = 2\sin\frac{1}{2}x$
2) $y = 2\sin x$
3) $y = \sin\frac{1}{2}x$
4) $y = \sin 2x$