

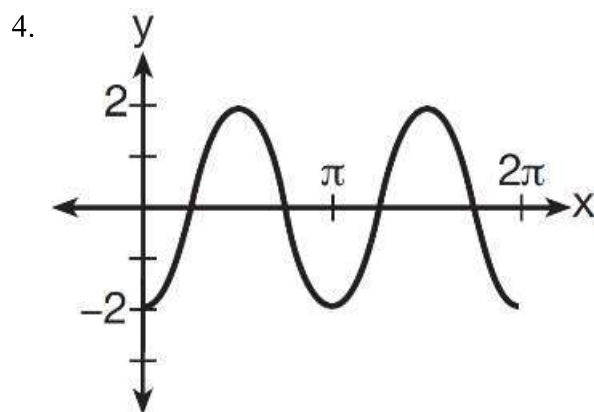
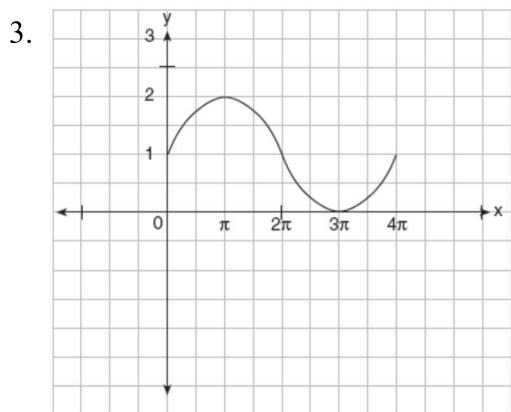
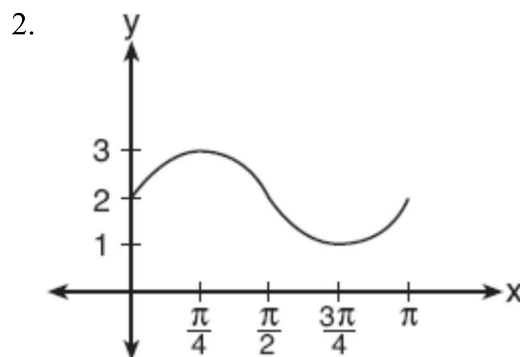
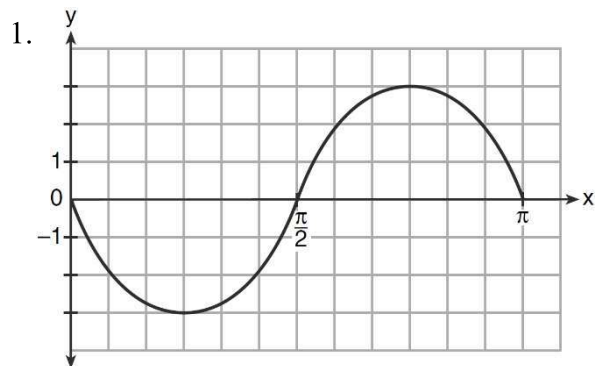
Name _____
Mr. Schlansky

Date _____
Algebra II

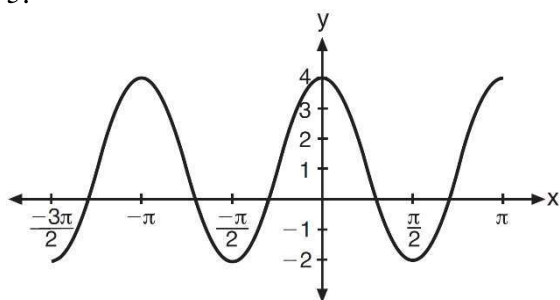


Writing Equations of Sinusoidal Graphs

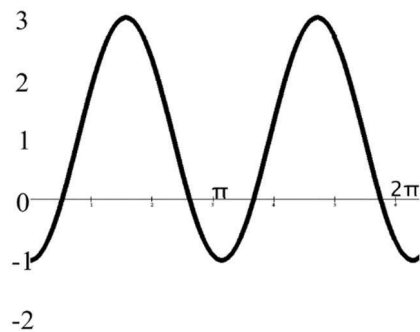
Write an equation for the graph of the trigonometric functions shown below.



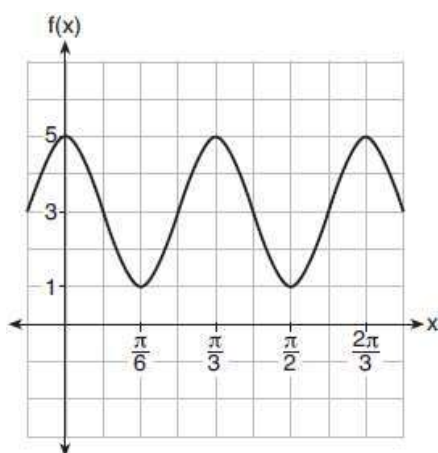
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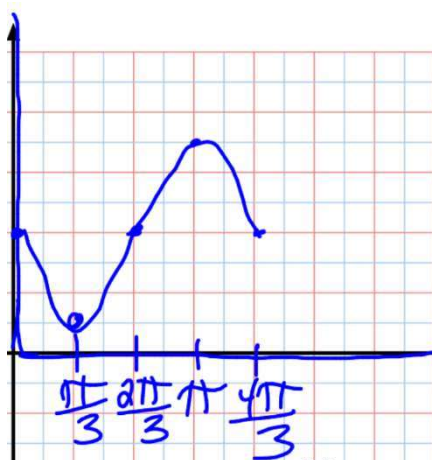
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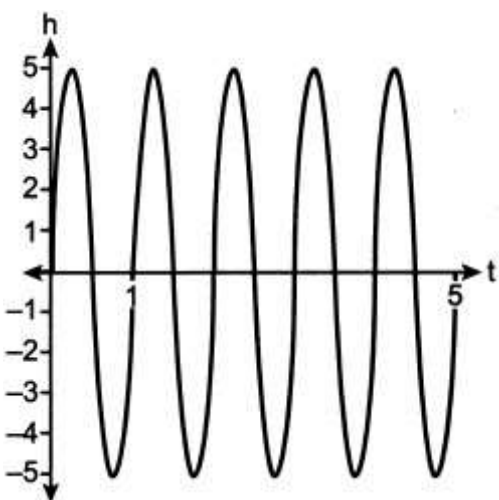
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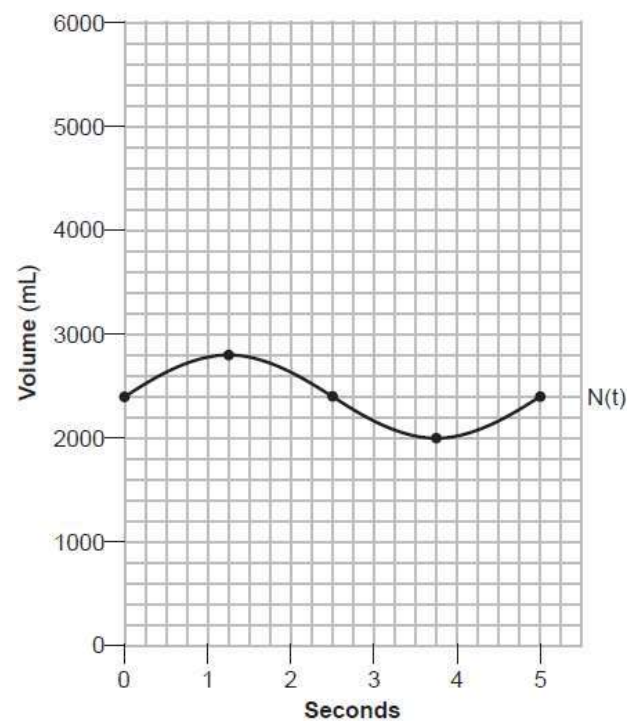
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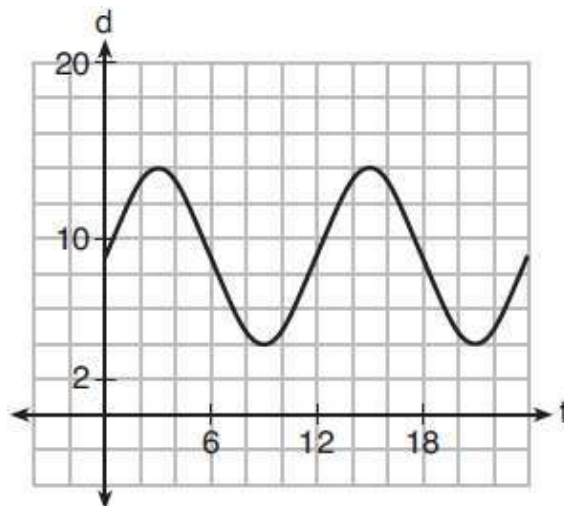
10.



11. The depth of the water at a marker 20 feet from the shore in a bay is depicted in the graph below.

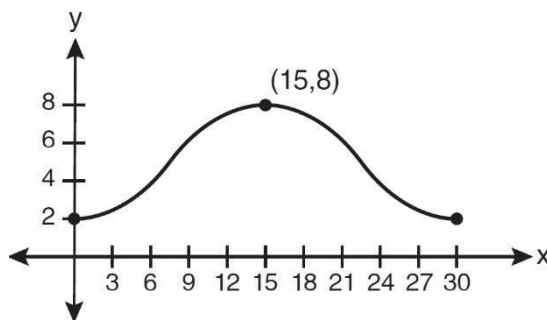
If the depth, d , is measured in feet and time, t , is measured in hours since midnight, what is an equation for the depth of the water at the marker?

- 1) $d = 5 \cos\left(\frac{\pi}{6}t\right) + 9$
- 2) $d = 9 \cos\left(\frac{\pi}{6}t\right) + 5$
- 3) $d = 9 \sin\left(\frac{\pi}{6}t\right) + 5$
- 4) $d = 5 \sin\left(\frac{\pi}{6}t\right) + 9$



12. Which equation is graphed in the diagram below?

- 1) $y = 3 \cos\left(\frac{\pi}{30}x\right) + 8$
- 2) $y = 3 \cos\left(\frac{\pi}{15}x\right) + 5$
- 3) $y = -3 \cos\left(\frac{\pi}{30}x\right) + 8$
- 4) $y = -3 \cos\left(\frac{\pi}{15}x\right) + 5$



13. Which equation is represented by the graph below?

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

