NAME DATE PERIOD

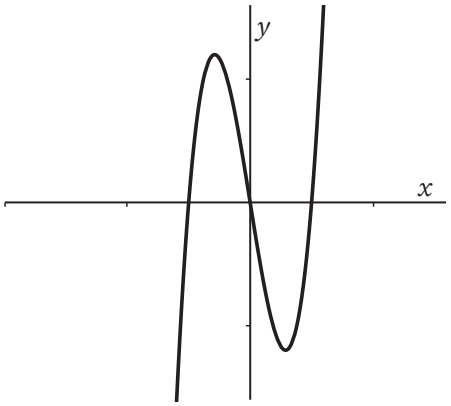
Lesson 4: More Ferris Wheels

Solidify Understanding

Ready

Identify the following functions as even, odd, or neither.

1.

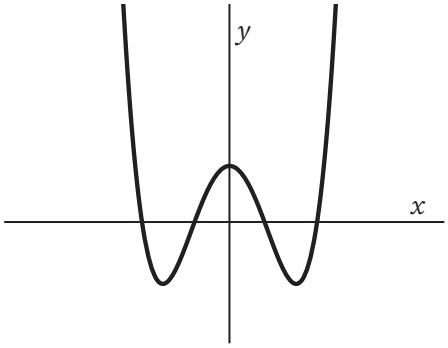


A. even

B. odd

C. neither

2.



A. even

B. odd

C. neither

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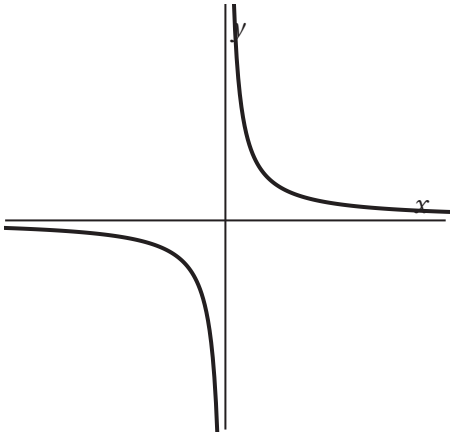
3.

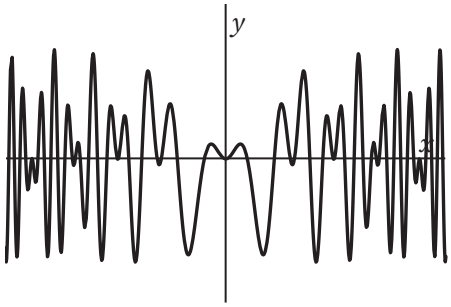


A. even

B. odd

C. neither

4.



A. even

B. odd

C. neither

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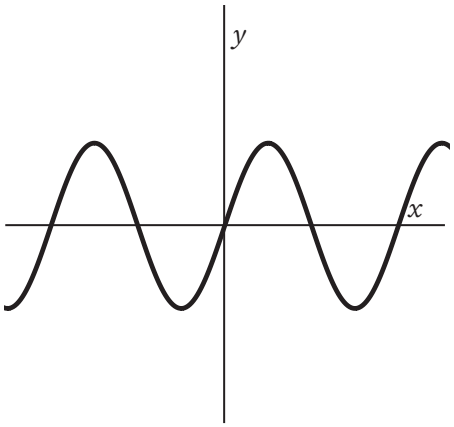
5.

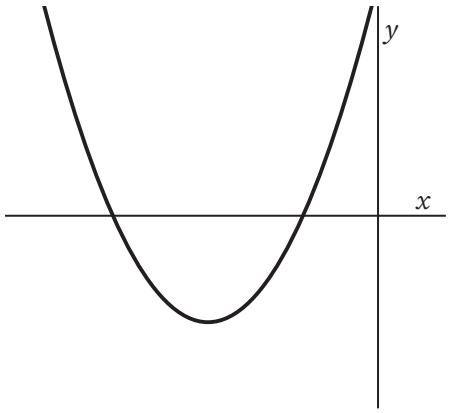


A. even

B. odd

C. neither

6.

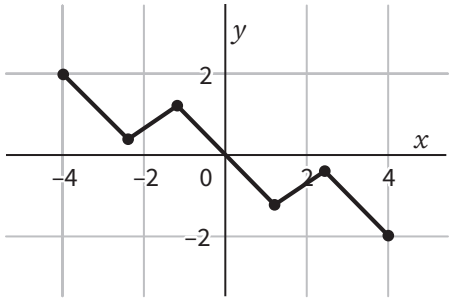


A. even

B. odd

C. neither

7.



A. even

B. odd

C. neither

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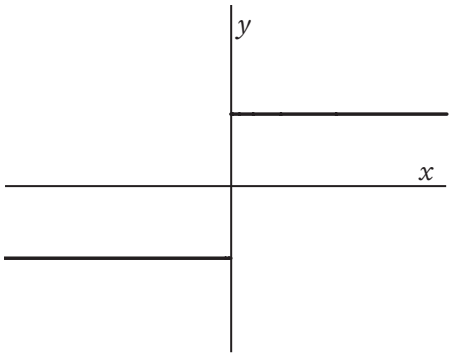
8.

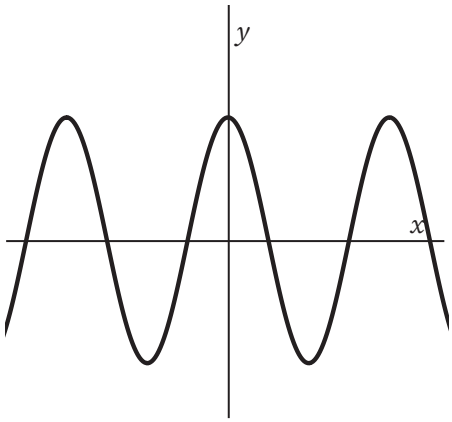


A. even

B. odd

C. neither

9.



A. even

B. odd

C. neither

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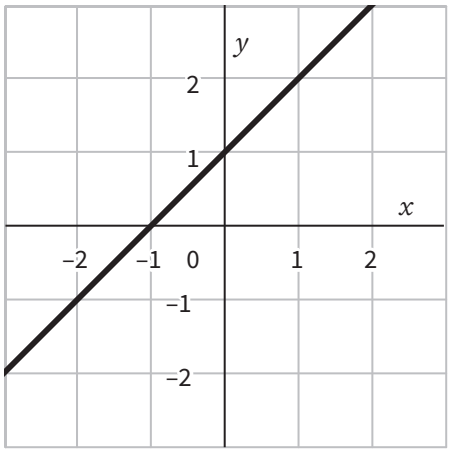
10.



A. even

B. odd

C. neither

Set

Describe the transformation(s) on the parabola in the following equations.

11. $y = x^2 + 5$

12. $y = x^2 - 1$

13. $y = -x^2$

14. $y = 4x^2$

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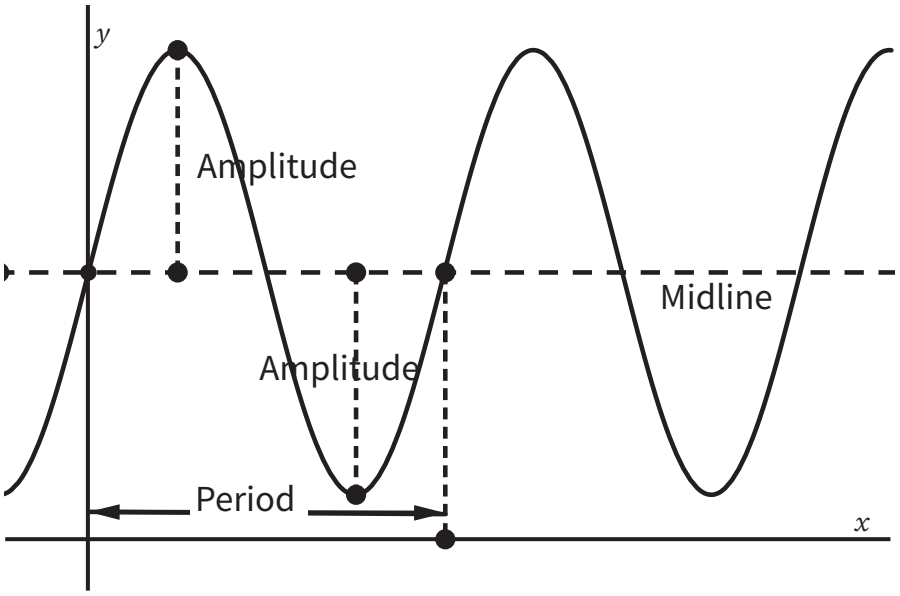
15. Given the equation $h(t) = 25\sin(18t) + 30$, fill in the actual values on the graph for the midline, the amplitude, and the period.



Match the graph with the correct equation.

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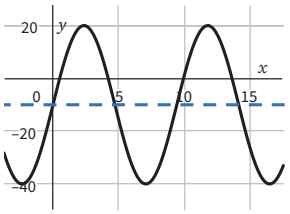
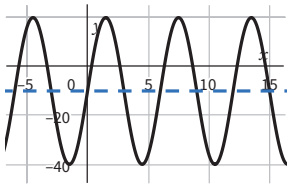
16. Match the graph with the correct equation.

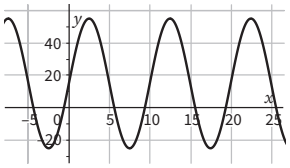
A. _____



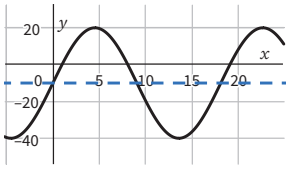
C. _____



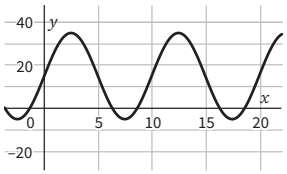
E. _____



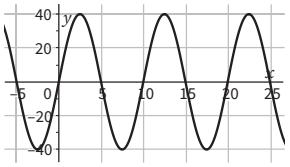
B. _____



D. _____



F. _____



1. $y = 30\sin(20x) - 10$
2. $y = 30\sin(40x) - 10$
3. $y = 30\sin(60x) - 10$
4. $y = 20\sin(36x) + 15$
5. $y = 40\sin(36x) + 15$
6. $y = 40\sin(36x)$

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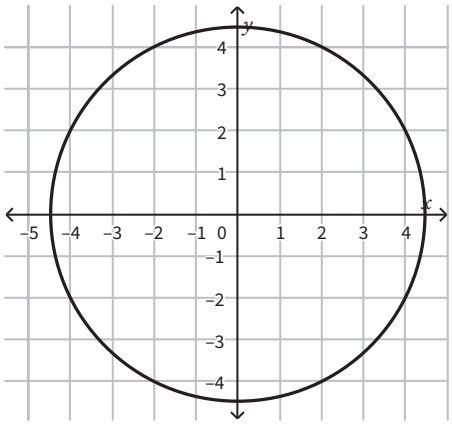
Go

17. Consider the point $(-4, 2)$, which is on the circle $x^2 + y^2 = 20$.



a. What is the radius of the circle?

b. Label the point $(-4, 2)$ on the circle.

c. Sketch the angle of rotation in standard form showing the initial and terminal rays.

d. For the angle of rotation you just drew, what is the value of sine at the point $(-4, 2)$? $\sin\theta =$

e. What is the measure of the angle of rotation?

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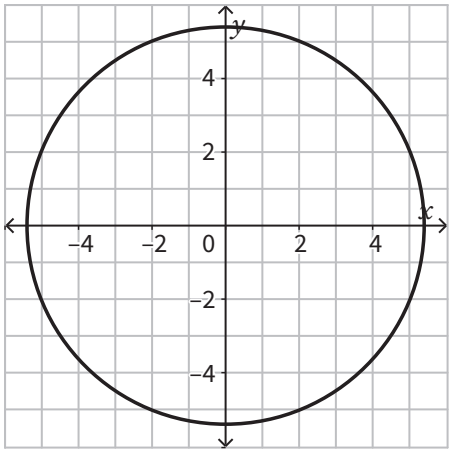
18. Consider the point $(2, -5)$, which is on the circle $x^2 + y^2 = 29$.



a. What is the radius of the circle?
$r =$ _____

b. Label the point $(2, -5)$ on the circle.

c. Sketch the angle of rotation in standard form showing the initial and terminal rays.

d. For the angle of rotation you just drew, what is the value of sine at the point $(2, -5)$? $\sin\theta =$

e. What is the measure of the angle of rotation?