

READY, SET, GO!

Name _____

Period _____

Date _____

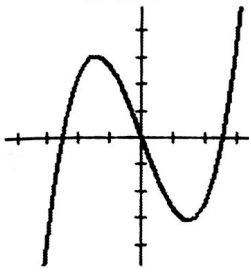
READY

Topic: Identifying *even* and *odd* functions from a graph

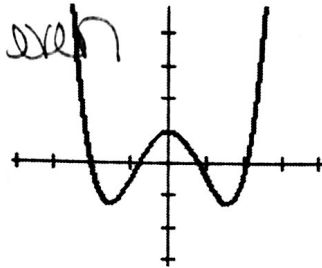
The *graphs* of even and odd functions make it easy to identify the type of function. Remember that an **even** function has a line of symmetry along the y -axis, while an **odd** function has 180° rotational symmetry.

Label the following functions as *even*, *odd*, or *neither*.

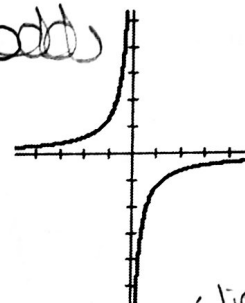
1. *odd*



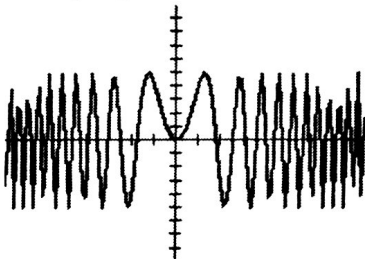
2. *even*



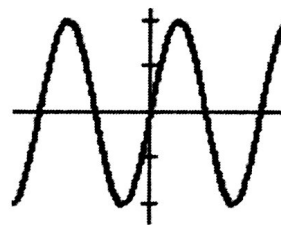
3. *odd*



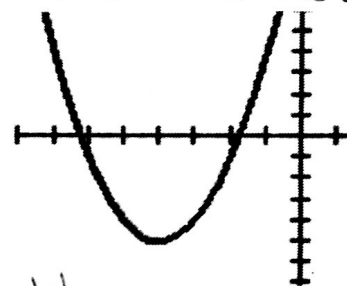
4. *even*



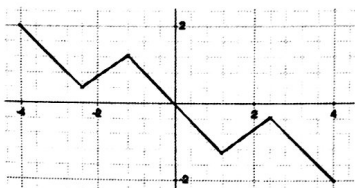
5. *odd*



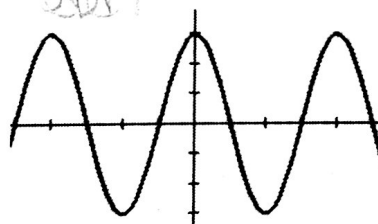
6. *neither* (line of symmetry is not the y -axis)



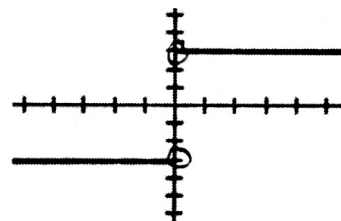
7. *odd*



8. *even*



9. *odd*



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SET

Topic: Describing transformations on functions

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

10. $y = x^2 + 5$
 translated up 5 units

11. $y = x^2 - 1$
 translated down 1 unit

12. $y = -x^2$
 reflected over the x-axis

13. $y = 4x^2$
 vertical stretch by a factor of 4

Match the equation with the correct graph. The scale of the x-axis is 90° . The scale of the y-axis is 1.

a. $y = \sin 2x$

b. $y = (\sin x) + 2$

c. $y = 3 \sin x$

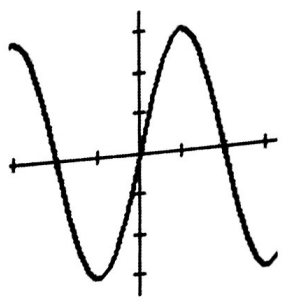
d. $y = -(\sin x) - 2$

e. $y = -2 \sin x$

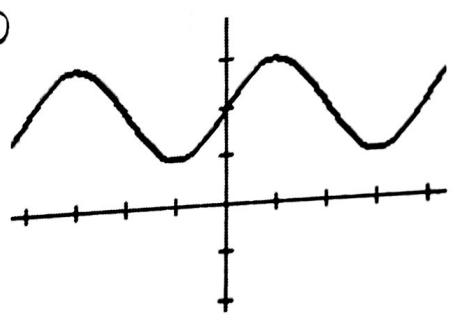
f. $y = 3 \sin 2x$

5i
 5
 5i

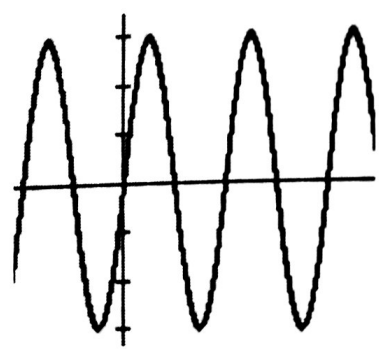
14. c



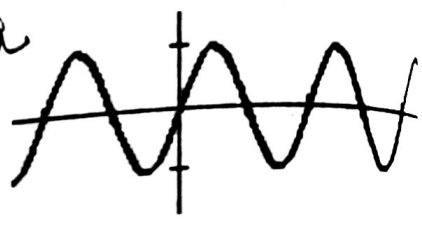
16. b



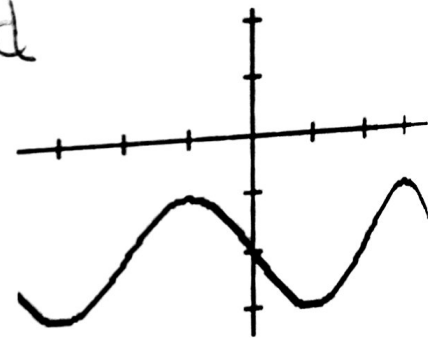
18. f



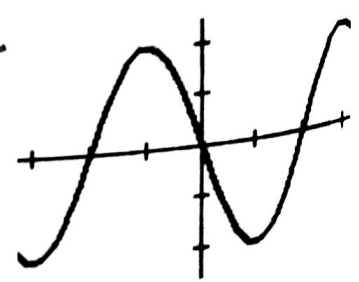
15. a



17. d



19. e



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GO

Topic: Recognizing positive and negative angles of rotation

A positive angle of rotation is counter-clockwise. Let's find out why. In the following examples, indicate whether the customary direction of rotation is **counter-clockwise** by placing a (+) sign next to it or **clockwise** by placing a (-) sign next to it.

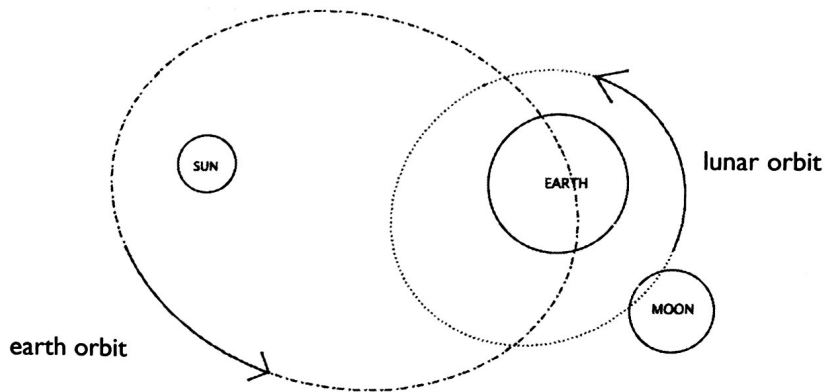
20. + Sprinters racing around a track
21. + The direction you turn the pages as you read a book
22. + A car in America traveling through a roundabout
23. + Turning a water faucet to the on position
24. - A car in Australia circling in a roundabout (See sign.)



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25. + The rotation of the earth around the sun according to the diagram below.
26. + The rotation of the moon around the earth. (See diagram)



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