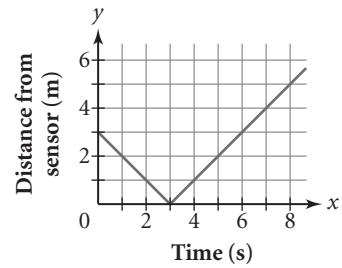


Lesson 8.4 • Stretching and Shrinking Graphs

Name _____ Period _____ Date _____

1. Greta and Tom are using a motion sensor for a “walker” investigation. They find that this graph models the data for Greta’s walk.



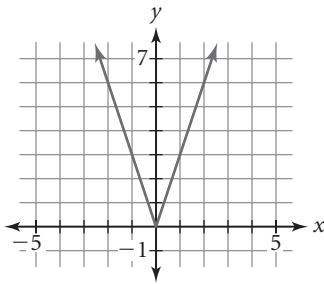
- a. Write an equation for this graph.
- b. Describe Greta’s walk.

2. Tom walks so that his distance from the sensor is always half Greta’s distance from the sensor.

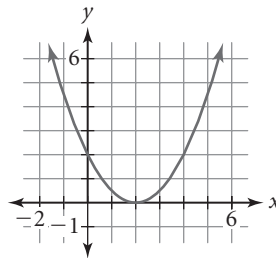
- a. Sketch a graph that models Tom’s walk.
- b. Write an equation for the graph in 2a.

3. Write an equation for each graph.

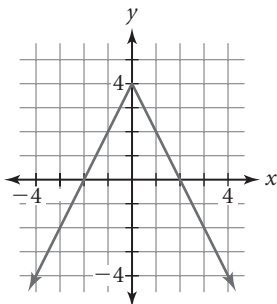
a.



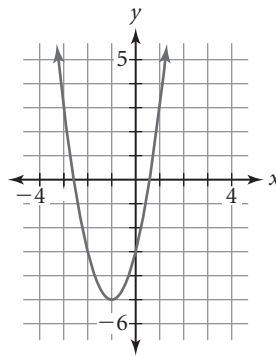
b.



c.



d.



4. Graph each function on your calculator. Then describe how each graph relates to its parent function.

a. $y = 0.25|x - 4| - 3$

b. $y = -0.5(x + 3)^2 + 2$

c. $y = 3(x + 5) - 4$

5. Draw this triangle on graph paper or on your calculator. Then draw the image defined by each of the definitions in 5a–c. Describe how each image relates to the original figure.

a. $(2x, 2y)$

b. $(x, 2y)$

c. $(0.5x, 0.5y)$

d. $(3x, y)$

