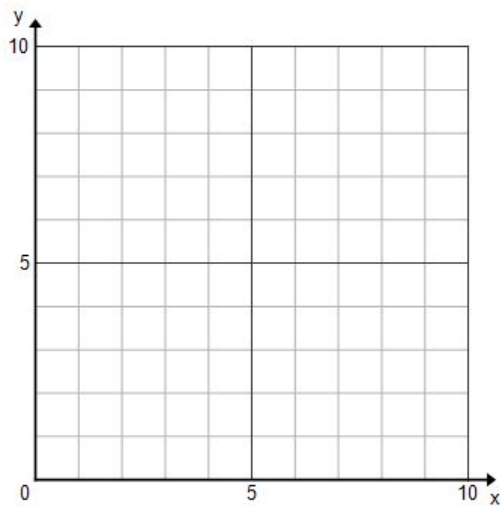
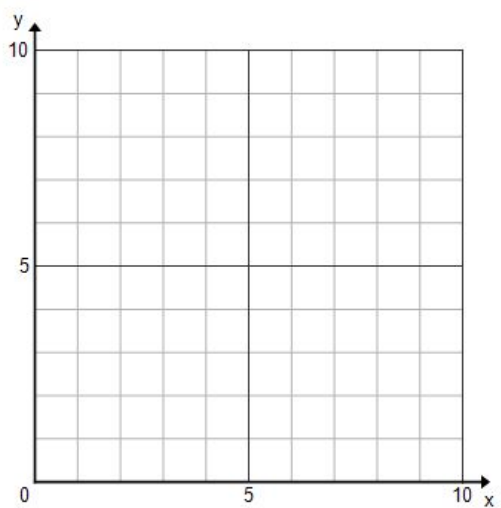


Graph the situation Mrs. Sheridan does, and then find the equations of the piecewise.

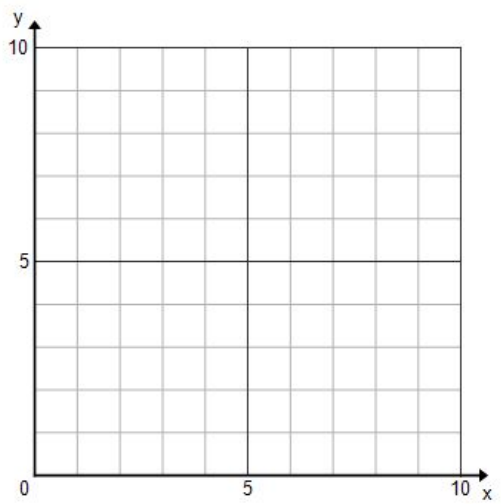
1.



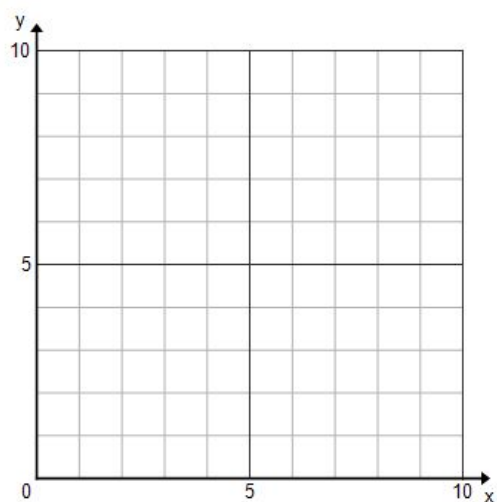
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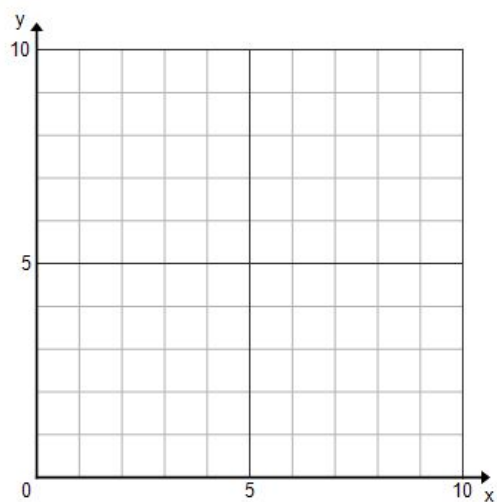
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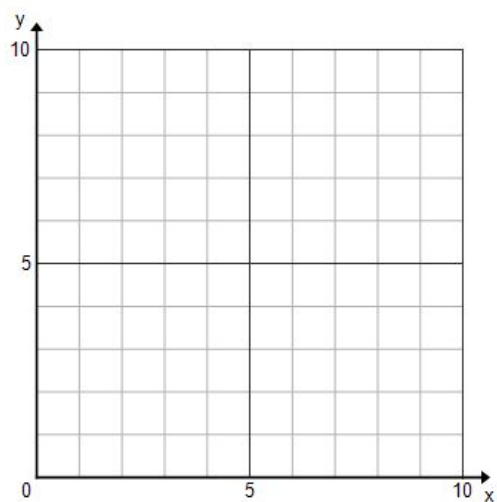
4.



5.

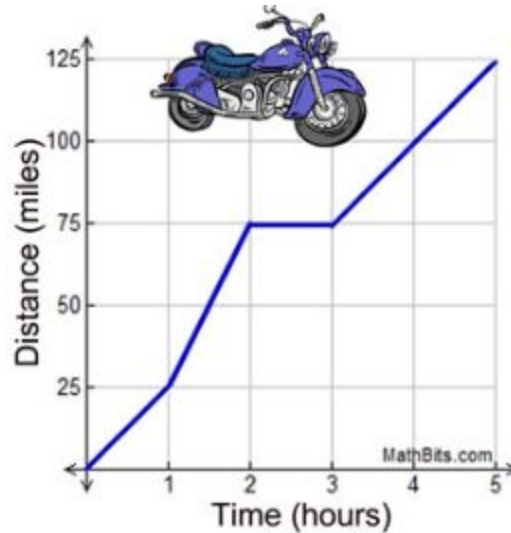


6.



7.

_____ from [__ , __]
 _____ from [__ , __]
 _____ from [__ , __]
 _____ from [__ , __]



8. Find an equation of the line with slope of $-\frac{4}{5}$ and an x-intercept of (10, 0).

9. The graph of $y = |x|$ has been reflected over the x-axis, Shrunk by a factor of $\frac{1}{4}$, and is translated 5 units down and 3 units left. Write the equation of the function represented by the given transformations.

10. Tommy has an iPod. It has 32gb of ram. It takes 2 mg for the IOS system. He loves to download movies. Each movie takes 3 gb to download.

What is the equation?

Label the following as a slope, y-intercept, x-intercept, or none.

- When Tommy runs runs out of memory _____
- He downloads 4 movies and he has 18gb left of memory. _____
- The amount of Memory available to store movies.. _____
- How much each movie per gb to store. _____

11. We put a buggy car outside the classroom. we start it at 600 cm. It travels 33cm per minute. Complete the table.

Distance (d)	Time in minutes (t)
600	
534	
	4
	5

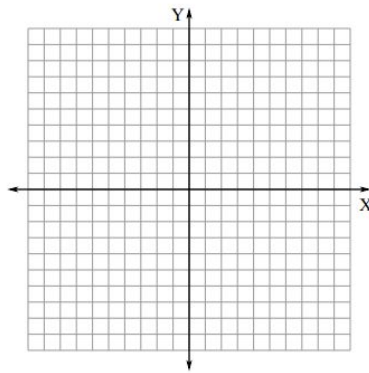
Write an equation using d and t for this situation.

12. Use the following points, (-4, 19) and (6, 16), to write the equation of the line in slope/intercept form.

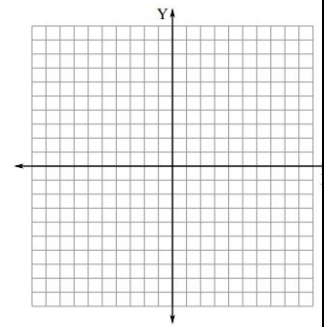
13. Graph and write the transformations:

a. $y = \frac{1}{2}|x+2| - 1$

b. $y = -3(x-8) + 7$



14. Graph:
 $2x - 4y = 10$



15. A line passes through the points (5,-1) and (6,-4). Pick the equation below that is equivalent.

- a. $y = \frac{1}{3}(x-5) - 1$
- b. $y - 6 = -3(x+4)$
- c. $y = \frac{1}{3}x + 4$
- d. $y + 4 = -3(x-6)$

16. Given the equation $V = \frac{4}{3}\pi r$, solve for r .

17. Given the equation, $y = -3|x-4| - 1$, describe the transformation(s) involved from the parent function $y = |x|$.

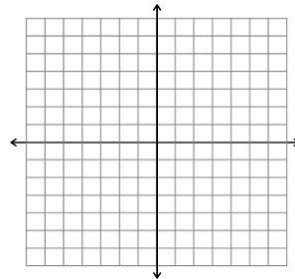
(Circle the best underlined answer(s) and fill in the blank(s).)

Does the above have a reflection in the x-axis?
Yes/No

The graph **stretches** / **shrinks** by a factor of ____ and is translated ____ units **up** / **down** and ____ units **left** / **right**.

18. Graph the equation $y = |x|$, and then graph the equation $y = -\frac{1}{2}|x-3|$.

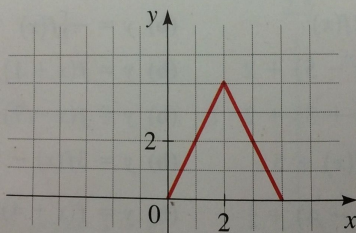
Describe the transformation:



19. Using the graph below find the following:

The graph of f is given. Sketch the graphs of the following functions.

- (a) $y = f(x-2)$
- (b) $y = f(x) - 2$
- (c) $y = 2f(x)$
- (d) $y = -f(x) + 3$
- (e) $y = f(-x)$
- (f) $y = \frac{1}{2}f(x-1)$



20. Equation of the Graph at the left:

End Behavior:

Domain:

Range:

Interval of increasing:

Interval of decreasing:

