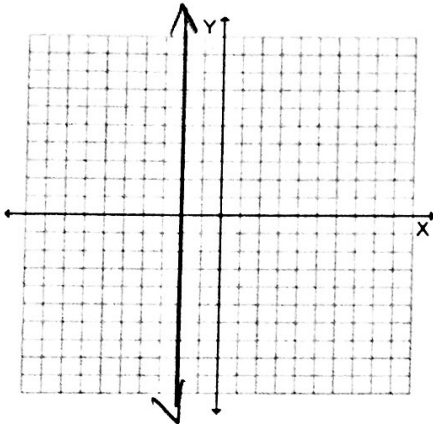


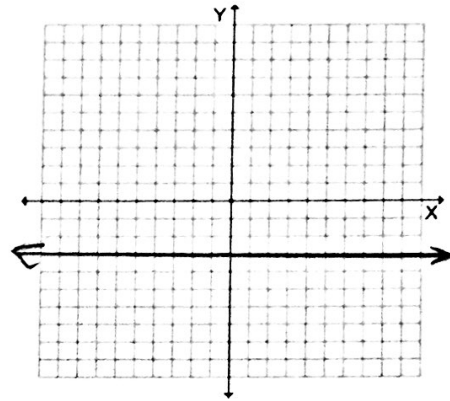
I can graph equations of horizontal and vertical lines.

Graph the following.

1. a) $x = -2$



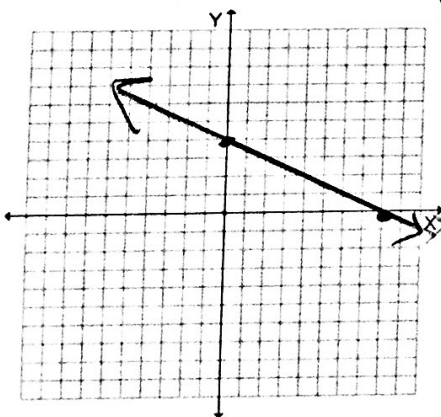
b) $y = -3$



I can graph linear equations in standard form using intercepts.

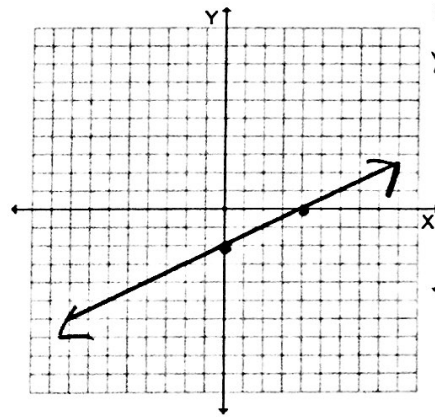
Use intercepts to graph the linear equation. Label the points corresponding to the intercepts

2. a) $x + 2y = 8$



y-int:
 $x=0$ $2y=8$
 $y=4$
 $(0, 4)$
x-int
 $y=0$ $x=8$
 $(8, 0)$

b) $-\frac{1}{2}x + y = -2$



y-int
 $x=0$ $y=-2$
 $(0, -2)$
x-int
 $y=0$
 $-\frac{1}{2}x = -2$
 $x=4$
 $(4, 0)$

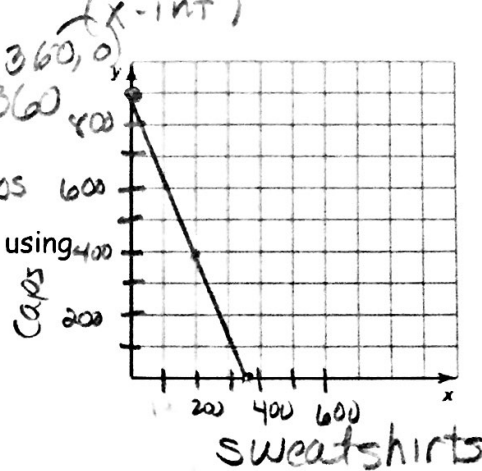
I can use linear equations in standard form to solve real-life problems.

3. The school band is selling sweatshirts and baseball caps to raise \$9000 to attend a band competition. Sweatshirts cost \$25 each and baseball caps cost \$10 each. The equation $25x + 10y = 9000$ models this situation, where x is the number of sweatshirts sold and y is the number of baseball caps sold.

a. Graph the equation. Find and interpret the intercepts.
 $x=0$ $10y=9000$ $y=900$ (0, 900) $y=0$ $25x=9000$ $x=360$ (360, 0)

b. If 258 sweatshirts are sold, how many baseball caps are sold?
 $25(258) + 10y = 9000$ $10y = 2550$ $y = 255$ caps

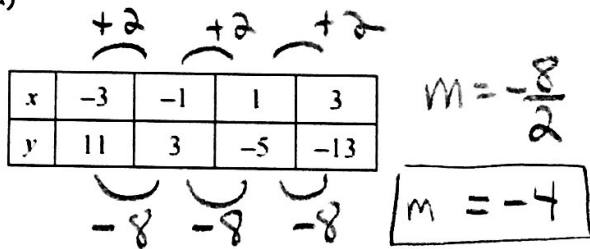
c. Find two more possible solutions in the context of the problem, using the graph.
 100 sweatshirts
 650 caps
 800 sweatshirts
 400 caps



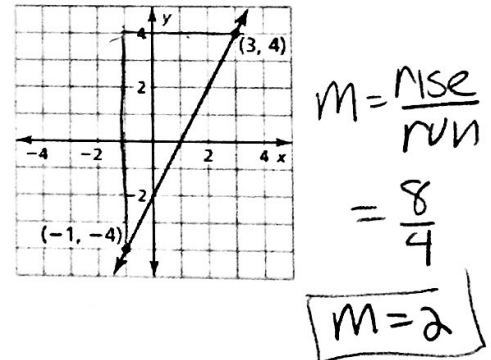
I can find the slope of a line.

Find the slope of the line.

4. a)



b)



I can use the slope-intercept form of a linear equation.

Find the slope and y-intercept of the graph of the linear equations.

5. a) $y = -2x + 8$

$m = -2$

$b = 8$

b) $x - 2y = 6$

$-2y = -x + 6$

$y = \frac{1}{2}x - 3$

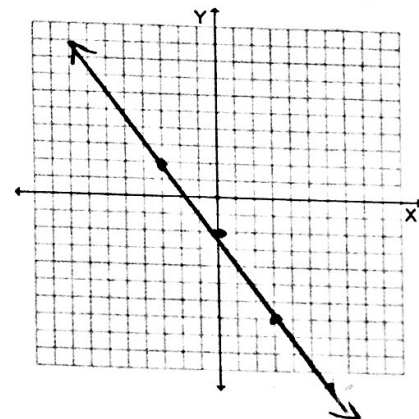
$m = \frac{1}{2}$

$b = -3$

Graph the function from the given description. Identify the slope, y-intercept, and x-intercept of the graph.

6. A linear function f models a relationship in which the dependent variable decreases 4 units for every 3 units the independent variable increases. The value of the function at $x = 0$ is -2.

$m = -\frac{4}{3}$ $b = -2$



I can use slopes and y-intercepts to solve real-life problems

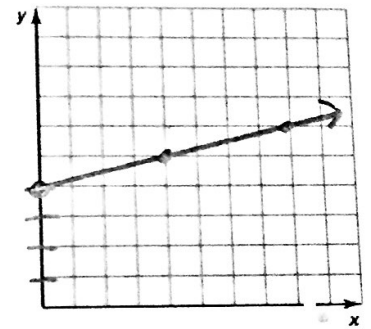
7. A linear function f models the length of a spider web. On average, the length of the web increases 0.25 inches every hour.

a) Graph f when $f(0) = 4$.

b) Identify the slope and interpret the y-intercept of the graph.

$b = 4$ $m = .25 = \frac{1}{4}$

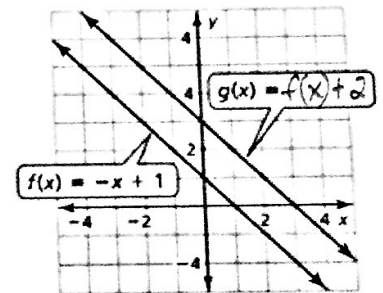
c) How long will the spider web be in 6 hours?



I can vertically translate graphs of linear functions.

8. Use the graphs of f and g to describe the transformation of the graph of f to the graph of g .

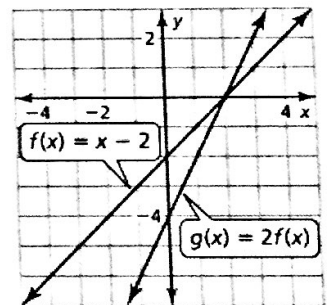
up 2 units
vertical shift



I can vertically stretch and shrink graphs of linear functions.

9. Use the graphs of f and g to describe the transformation of the graph of f to the graph of g .

vertical stretch by a factor of 2

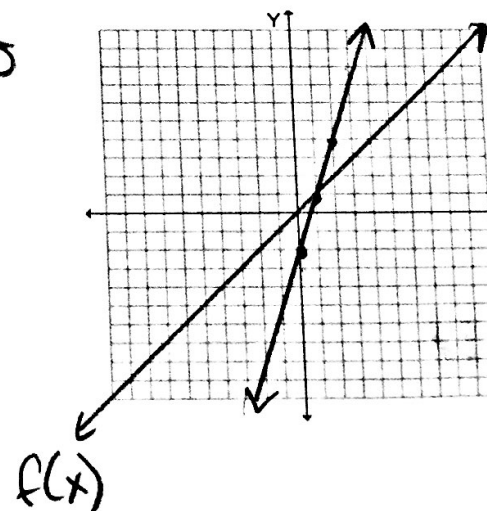


I can combine transformations of linear functions.

10. Graph f and h . Describe the transformation from the graph of f to the graph of h .

$f(x) = x$, $h(x) = 3x - 2$

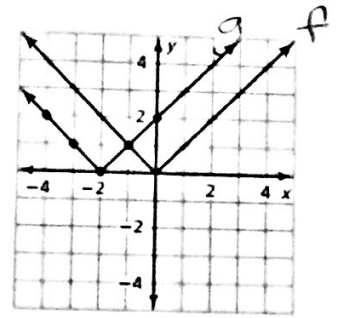
vertical shift down 2 units
vertical stretch by a factor of 3



I can translate graphs of absolute value functions.

11. Use the graphs at the right describe the transformation from the graph of $f(x) = |x|$ to the graph of $g(x) = |x + 2|$.

horizontal shift
2 units to the left

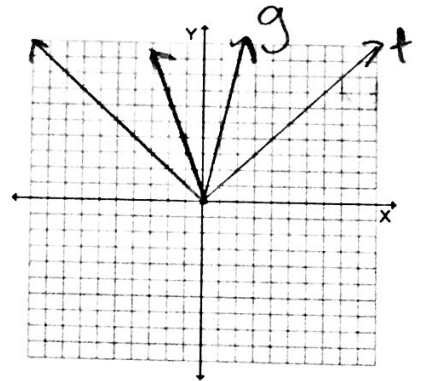


I can stretch and shrink graphs of absolute value functions.

12. Graph the functions on the same set of axes. Compare the graph of $g(x)$ to the graph of $f(x)$. Describe the domain and range.

$$f(x) = |x|; \quad g(x) = 4|x|$$

vertical stretch
by a factor of
4



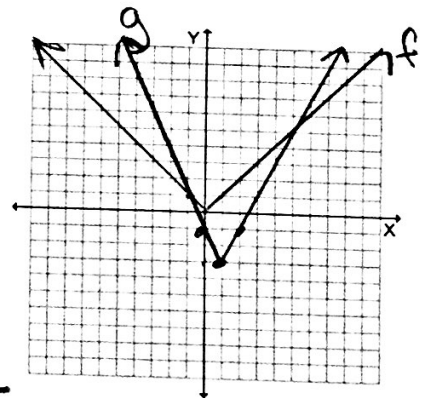
I can combine transformations of graphs of absolute value functions.

13. Graph the functions on the same set of axes. Compare the graph of $g(x)$ to the graph of $f(x)$. (Describe the transformations.) Describe the domain and range and identify the vertex.

$$f(x) = |x|; \quad g(x) = 2|x - 1| - 3$$

vertex (h, k)
 $(1, -3)$

vertical stretch by a factor of 2
vertical shift: down 3 unit
horizontal shift: right 1 unit



14. Without graphing, describe the transformations from the graph of $f(x) = |x|$ to $g(x) = 4|x - 1| + 2$.
- vertical stretch by a factor of 4,
vertical shift: up 2 units
horizontal shift: right 1 unit.
- vertex (h, k)
 $(1, 2)$