

8.EE.B.6 ADDITIONAL PRACTICE

Answer Key

Use the graph to the right to answer questions 1-2.

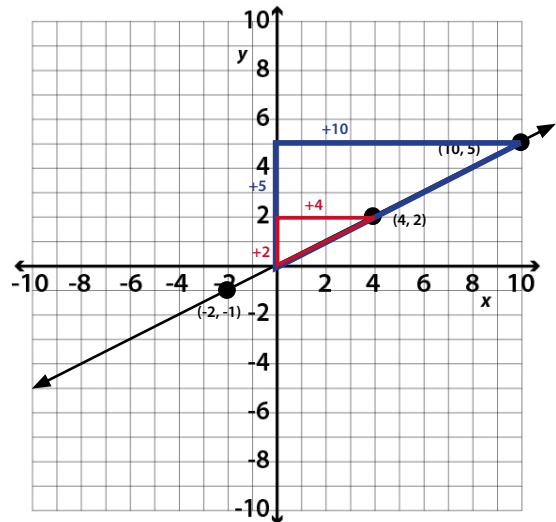
- 1) What is the slope of the line? Draw a right triangle on the graph between the two points you selected to illustrate how you determined the slope.

slope = $\frac{1}{2}$; Graphs may vary.

Two options are shown. $\frac{2}{4} = \frac{1}{2}$ $\frac{5}{10} = \frac{1}{2}$

- 2) Max used the origin and the point (4, 2) to determine the slope as $\frac{2}{4}$. Angela predicted that the slope would be greater if she used the origin and the point (10, 5). Is Angela correct? Explain why or why not.

No, Angela is not correct. The slope between (0, 0) and (10, 5) is still $\frac{1}{2}$, which is the same slope that Max got ($\frac{2}{4} = \frac{1}{2}$).



Use the graph to the right to answer questions 3-4.

- 3) What is the slope of the line? Using two different pairs of points, draw similar triangles to prove that the slope is the same, regardless of the points chosen.

slope = 15; Graphs may vary.

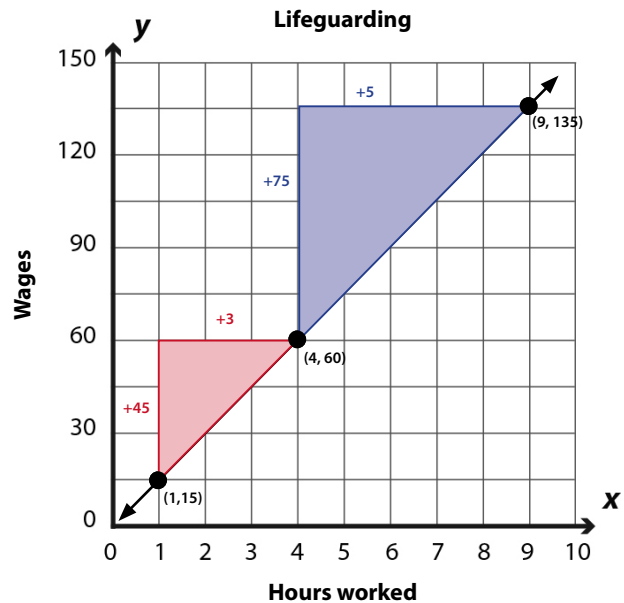
One option is shown.

(1, 15) (4, 60) & (4, 60) (9, 135)

$$\frac{45}{3} = \frac{15}{1} \quad \frac{75}{5} = \frac{15}{1}$$

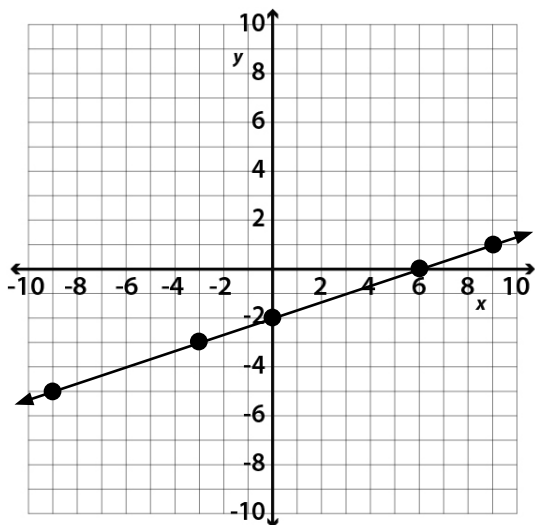
- 4) What is the equation of the line represented in the graph?

$y = 15x$



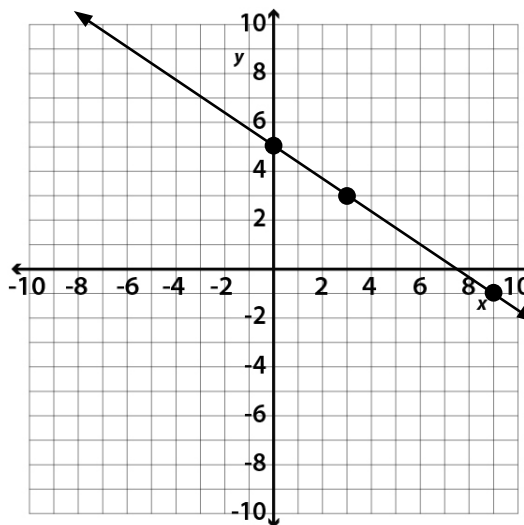
8.EE.B.6 ADDITIONAL PRACTICE (cont'd) Answer Key

5) What is the equation of the line below?



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

6) What is the equation of the line below?



$$y = -\frac{2}{3}x + 5$$

7) The equation $y = -x$ represents a line on a graph. What is the slope of the line? What is the y-intercept of the line?

$$\text{slope} = -1, \text{y-intercept} = 0$$

8) A line on a graph has a slope of $\frac{1}{4}$ and a y-intercept of -3. Write the equation of the line in slope-intercept form.

$$y = \frac{1}{4}x - 3$$

9) What is the equation of a line that has a slope of -2 and passes through the point (1, 5)?

$$y = -2x + 7$$

10) What is the equation of a line that passes through the points (-3, 7) and (9, -1)?

$$y = -\frac{2}{3}x + 5$$