

Slope Extension Problems

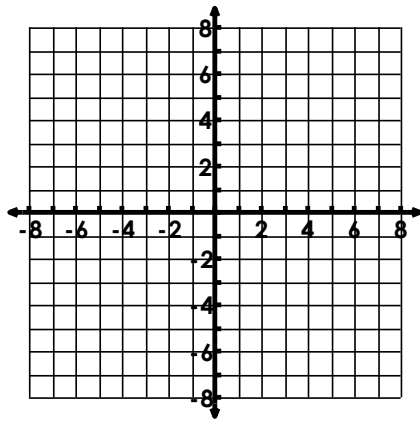
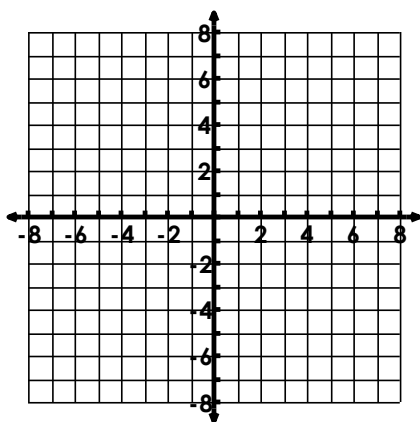
1. The slope of the line that passes through the points $(-2, y)$ and $(-5, 7)$ is $-2/3$. What is the value of y ?
2. A line with slope of -3 passes through $(-8, p)$ and $(2, 3p)$. Find the value of p .

3. Using a graph, tell whether the following statements are true or false. Use the graph to show why or why not.

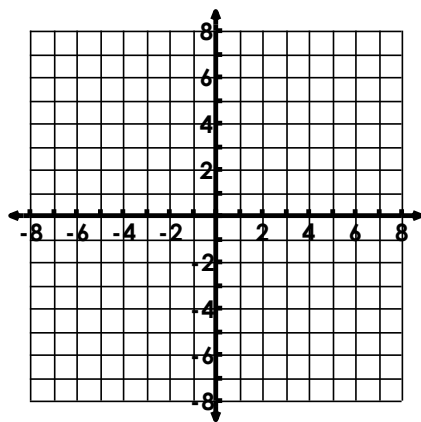
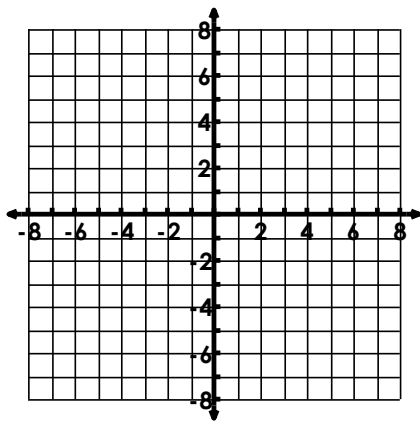
For a line with a positive slope....

a. The x-intercept and y-intercept can both be 0.

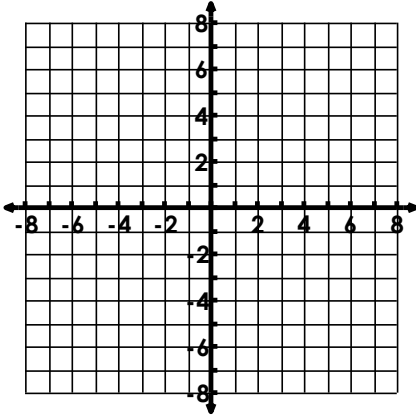
b. The x-intercept and y-intercept must have opposite signs.



c. The slope can be equal to y-intercept & x-intercept. d. The line can only go through 2 quadrants.



4. Graph a family of lines of the form $y = 3x + c$ on the same x-y plane, where c is any real number. Describe the pattern in the graph. What does the c value do to the graph?



5. Find two points that have a slope of -9. Two numbers must be negative.

6. Use the picture of the slide to answer the following:

The top and bottom of the slide are parallel to the ground.

a. What is the slope of the main portion of the slide?

b. How does the slope change if the bottom of the slide is only 12 inches above the ground? Does the slide become steeper? Explain why or why not.

