

4.6 Traveler

Tuesday, November 29, 2016 10:37 AM

Geometry Honors

Name:

4.6 Slope review traveler style

1. Find the slope between (-3,8) and (2,7).

$$m = -\frac{1}{5}$$

2. What is slope?

steepness + direction rise over run

$$\frac{y_2 - y_1}{x_2 - x_1} = m$$

3. What are x and y intercepts?

plug in 0 for y → plug in 0 for x

4. Write the equation of the line between (-2, 6) and (0, 8).

$$\frac{8-6}{0-2} = \frac{2}{-2} = -1 = m$$

$$y = x + 8$$

5. What is slope intercept form of an equation of a line?

$$y = mx + b$$

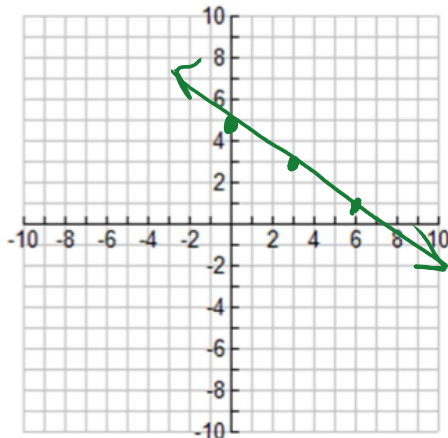
6. What is standard form of an equation of a line?

$$Ax + By = C$$

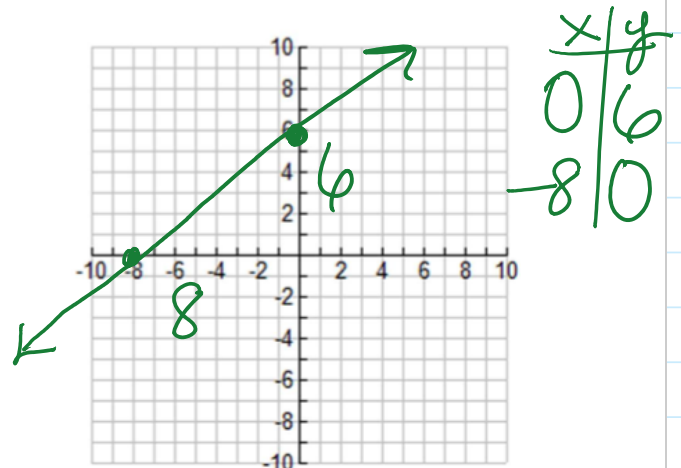
7. What is point slope form of an equation of a line?

$$y - y_1 = m(x - x_1)$$

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



9. Graph $3x - 4y = -24$.



10. What are parallel lines and what kind of slopes do they have?

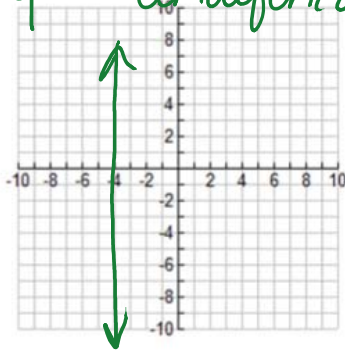
Same slope - never intersect!

11. What are perpendicular lines and what kind of slopes do they have?

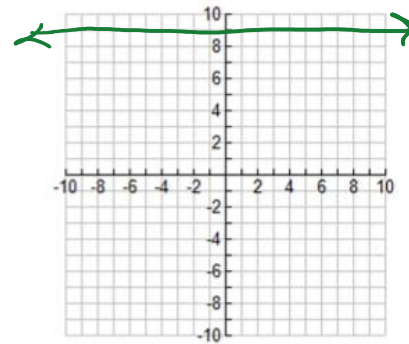
intersect at 90° and have opp reciprocal slopes

12. Draw a vertical line below and write the equation. What is the slope?

$x = -4$ undefined slope



13. Draw a horizontal line below and write the equation. What is the slope?



$y = 9$
slope of 0

14. What are collinear points?

points on the same line

15. A line has a slope of $-\frac{3}{2}$ and goes through (6,5) and (11, k). What is the value of k?

$$\frac{k-5}{11-6} = -\frac{3}{2}$$

$$\frac{k-5}{5} = -\frac{3}{2}$$

$$k = -5/2$$

$$2k-10 = -15$$

$$2k = -5$$

16. Write the equation of the line given in the table below:

X	Y
-5	3
-4	1
-3	-1
-2	-3
-1	-5
0	-7

$$y = -2x - 7$$

$$m = \frac{-5+3}{-1+2} = \frac{-2}{1} = -2$$

$$y - 1 = -2(x + 4) \text{ done.}$$

$$y - 3 = -2(x + 5)$$

$$y + 7 = -2(x - 0)$$

$$y + 9 = -2(x - 1)$$