

Date: _____

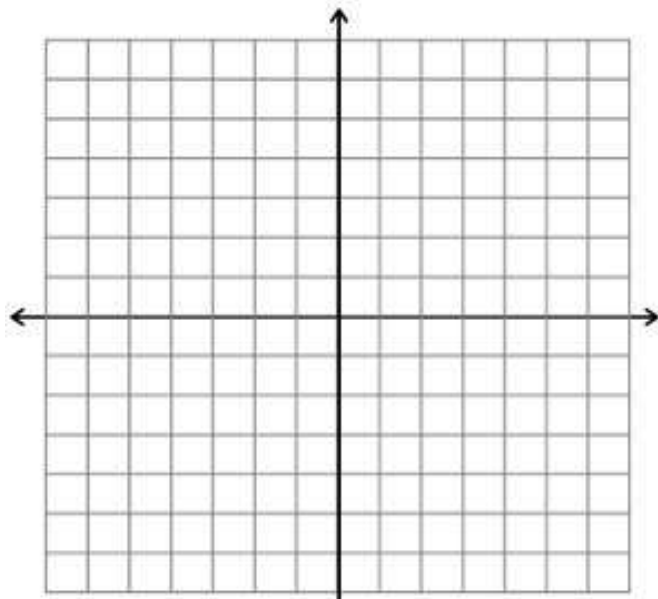
Special Slopes and Equations

Example 1

Graph the following pairs of lines and state their slope.

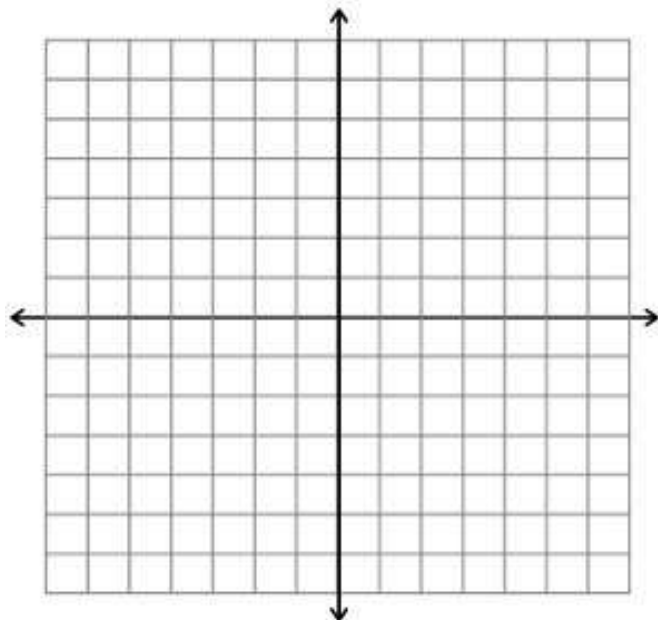
a. $y = \frac{3}{2}x - 4$

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



b. $y = -2x + 3$

$$y = -2x - 2$$



What do you notice?

Lines with the same slope are _____.

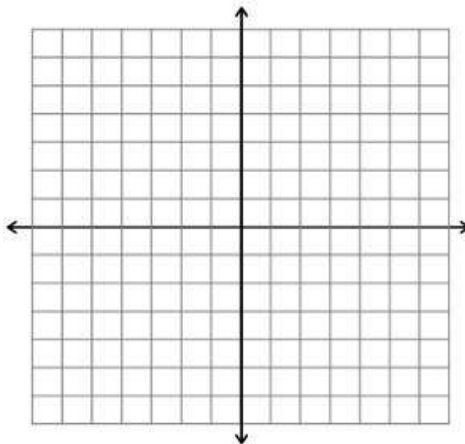
Parallel lines have the same _____.

Example 2

Graph the line that goes through the following pairs of points. Determine the slope of the line and give its equation.

a) $A(5,3)$ and $B(-2,3)$

b) $C(3,-4)$ and $D(-5,-4)$



Points on horizontal lines have the same _____ coordinate.

The slope of a horizontal line is _____.

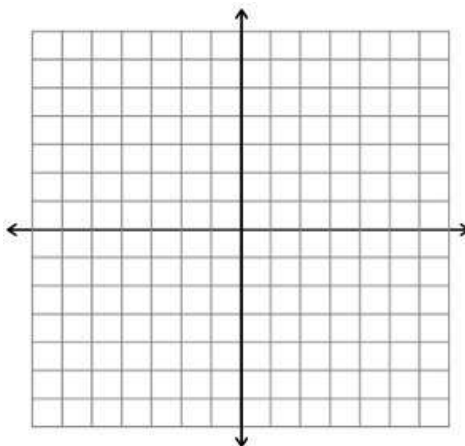
The equation of a horizontal line looks like _____.

Example 3

Graph the line that goes through the following pairs of points. Determine the slope of the line and give its equation.

a) $A(-5,1)$ and $B(-5,-7)$

b) $C(6,4)$ and $D(6,-2)$



Points on vertical lines have the same _____ coordinate.

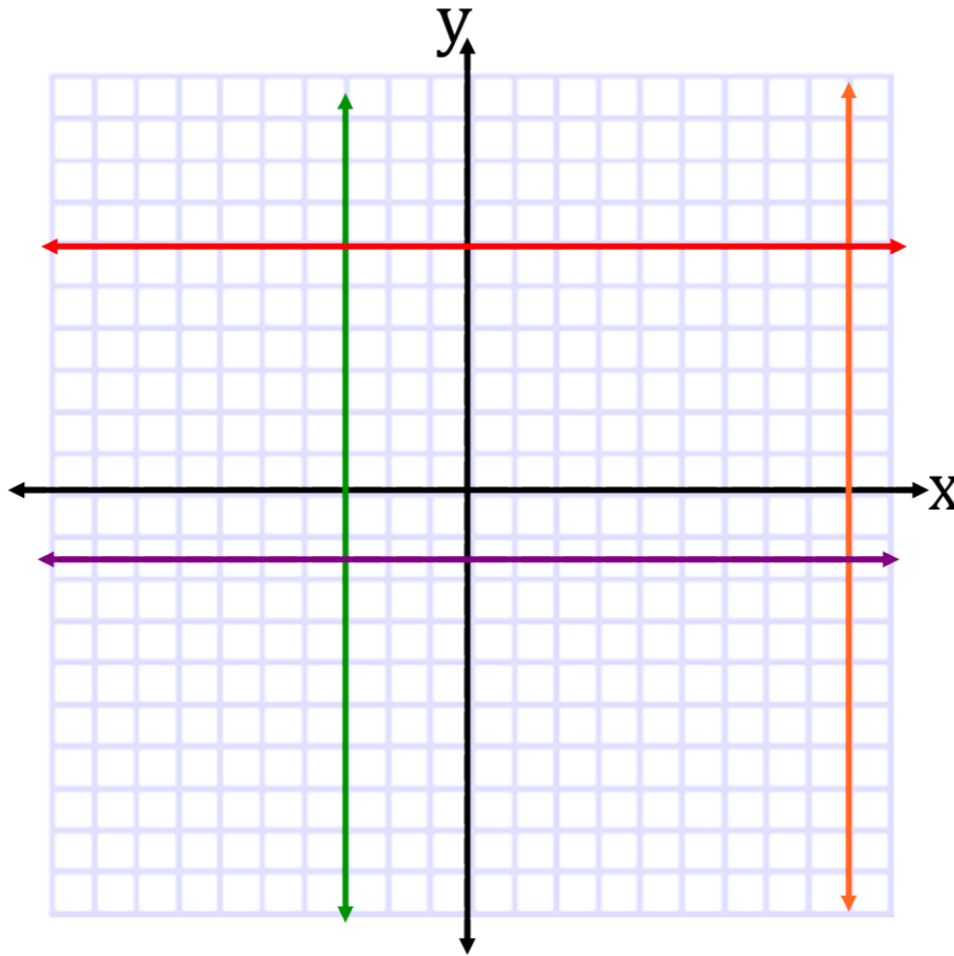
The slope of a vertical line is _____.

The equation of a vertical line looks like _____.

Example 4

Determine the slope and equation of each of the given lines.

a.



b. Through $(-3, 7)$ and $(-3, 2)$.

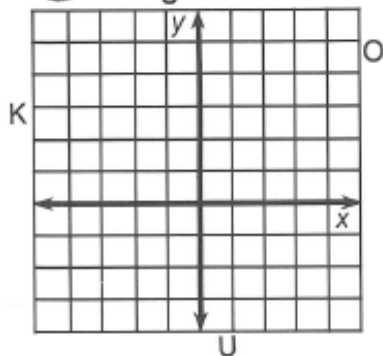
c. Through $(-1, -1)$ and $(5, -1)$.

Homework:

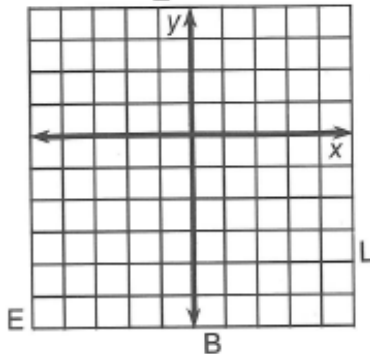
Whom Should You See at the Bank If You Need To Borrow Money?

Use the slope and y-intercept to graph each equation below. The graph, if extended, will cross a letter. Print this letter in each box that contains the number of that exercise.

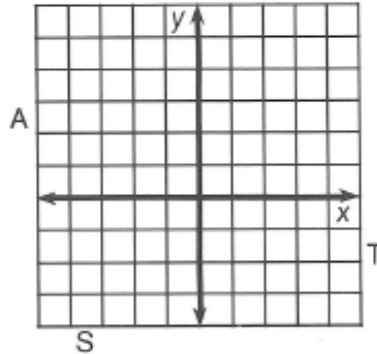
① $y = \frac{2}{3}x + 1$



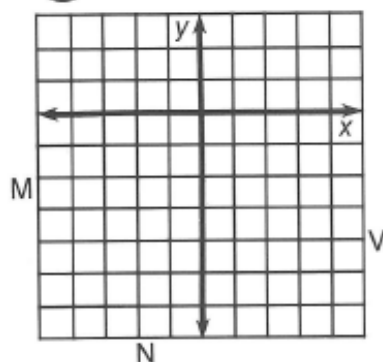
② $y = \frac{1}{2}x - 3$



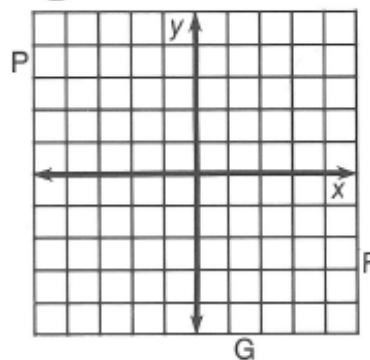
③ $y = -\frac{3}{4}x + 2$



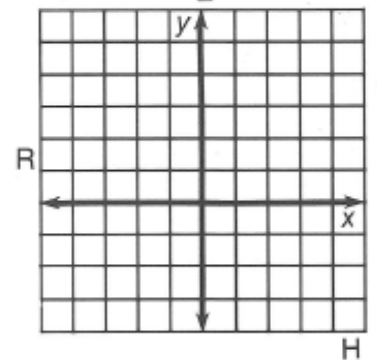
④ $y = 2x - 4$



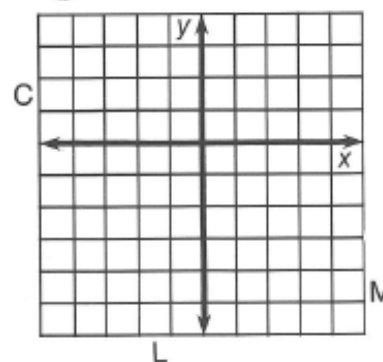
⑤ $y = -3x - 1$



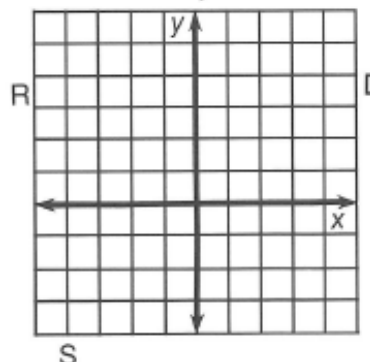
⑥ $y = -\frac{3}{2}x + 3$



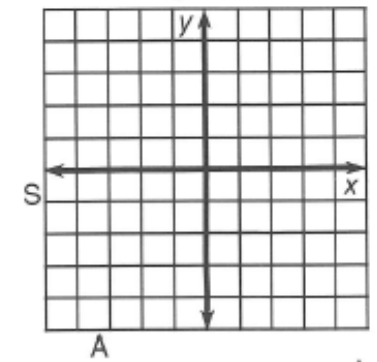
⑦ $y = 4x - 2$



⑧ $y = -\frac{1}{4}x + 2$



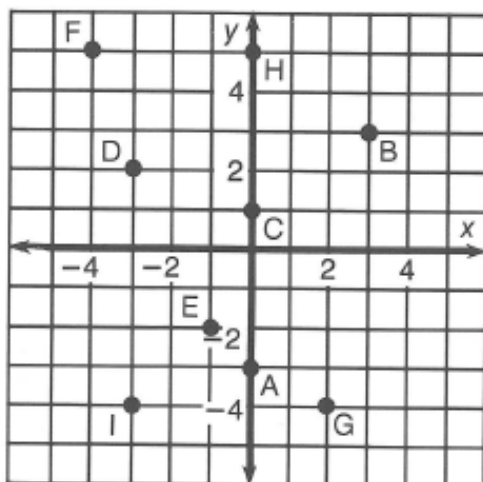
⑨ $y = \frac{5}{3}x$



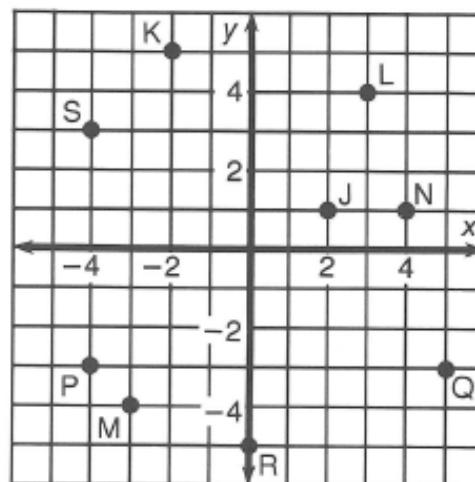
3	6	2	7	1	9	4	9	8	8	9	4	5	2	8
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What Did the Ape Think of the Grape's House?

For each exercise, draw the line indicated and write its equation. Find your answer in the answer section and notice the two letters next to it. Print these letters in the two boxes at the bottom of the page that contain the number of that exercise.



- ① Equation of $\overleftrightarrow{AB}$ _____
- ② Equation of $\overleftrightarrow{CB}$ _____
- ③ Equation of $\overleftrightarrow{DE}$ _____
- ④ Equation of $\overleftrightarrow{FG}$ _____
- ⑤ Equation of $\overleftrightarrow{HI}$ _____



- ⑥ Equation of $\overleftrightarrow{JK}$ _____
- ⑦ Equation of $\overleftrightarrow{LM}$ _____
- ⑧ Equation of $\overleftrightarrow{NS}$ _____
- ⑨ Equation of $\overleftrightarrow{PQ}$ _____
- ⑩ Equation of $\overleftrightarrow{RQ}$ _____

Answers:

① DE $y = -\frac{1}{4}x + 2$

② TT $y = \frac{2}{5}x$

③ EA $y = -2x + 3$

④ SA $y = \frac{4}{3}x - 1$

⑤ NE $y = \frac{2}{3}x + 1$

⑥ VI $y = \frac{2}{5}x - 5$

⑦ TH $y = -\frac{3}{2}x + 2$

⑧ OU $y = -x + 3$

⑨ TH $y = -2x - 4$

⑩ AS $y = 2x - 3$

⑪ GH $y = -\frac{3}{2}x - 1$

⑫ TI $y = \frac{4}{3}x$

⑬ HE $y = 3x + 5$

⑭ TW $y = -3$

⑮ SH $y = \frac{2}{3}x + 5$

5	5	3	3	6	6	4	4	7	7	9	9	1	1	8	8	10	10	2	2
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