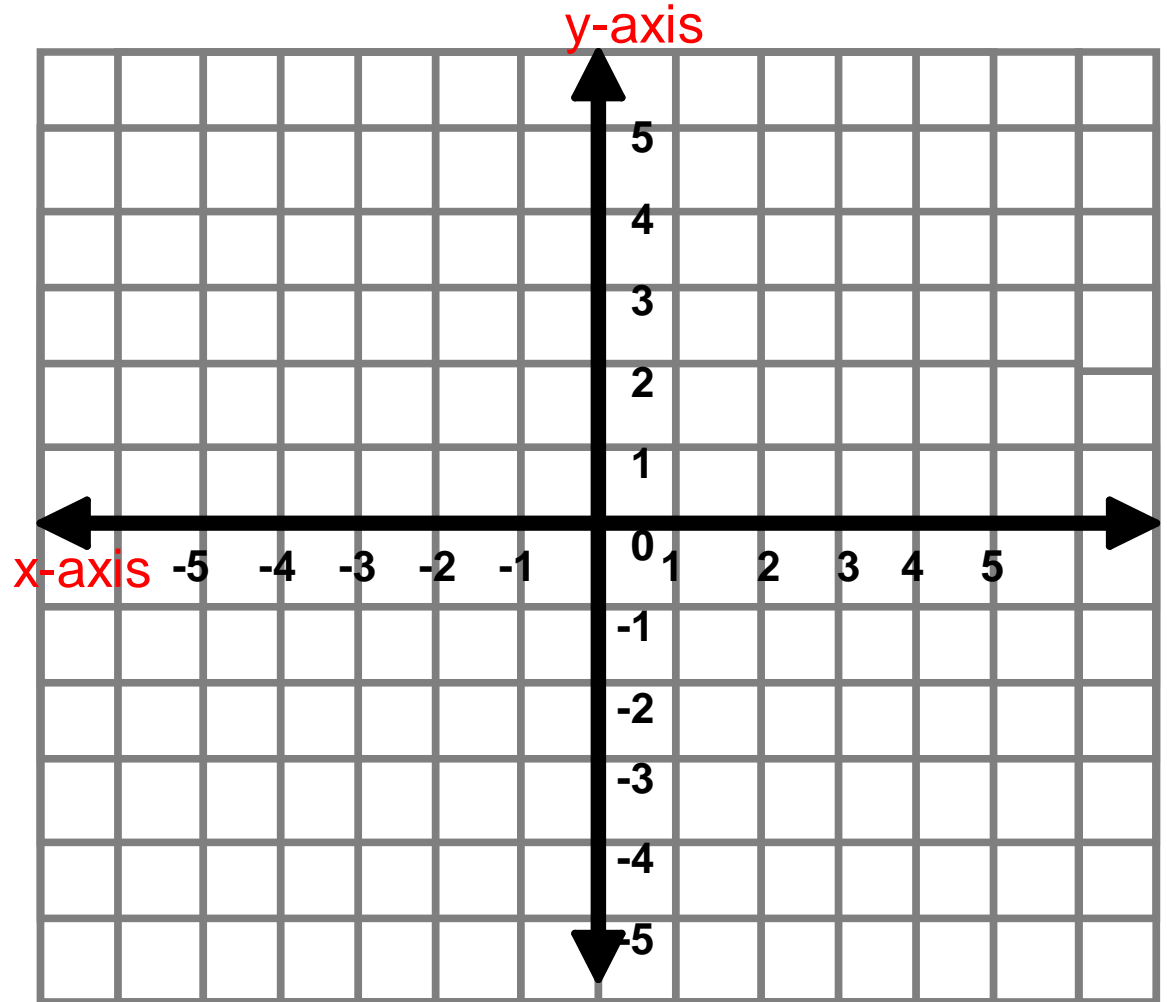# Chapters 4 & 6 Review

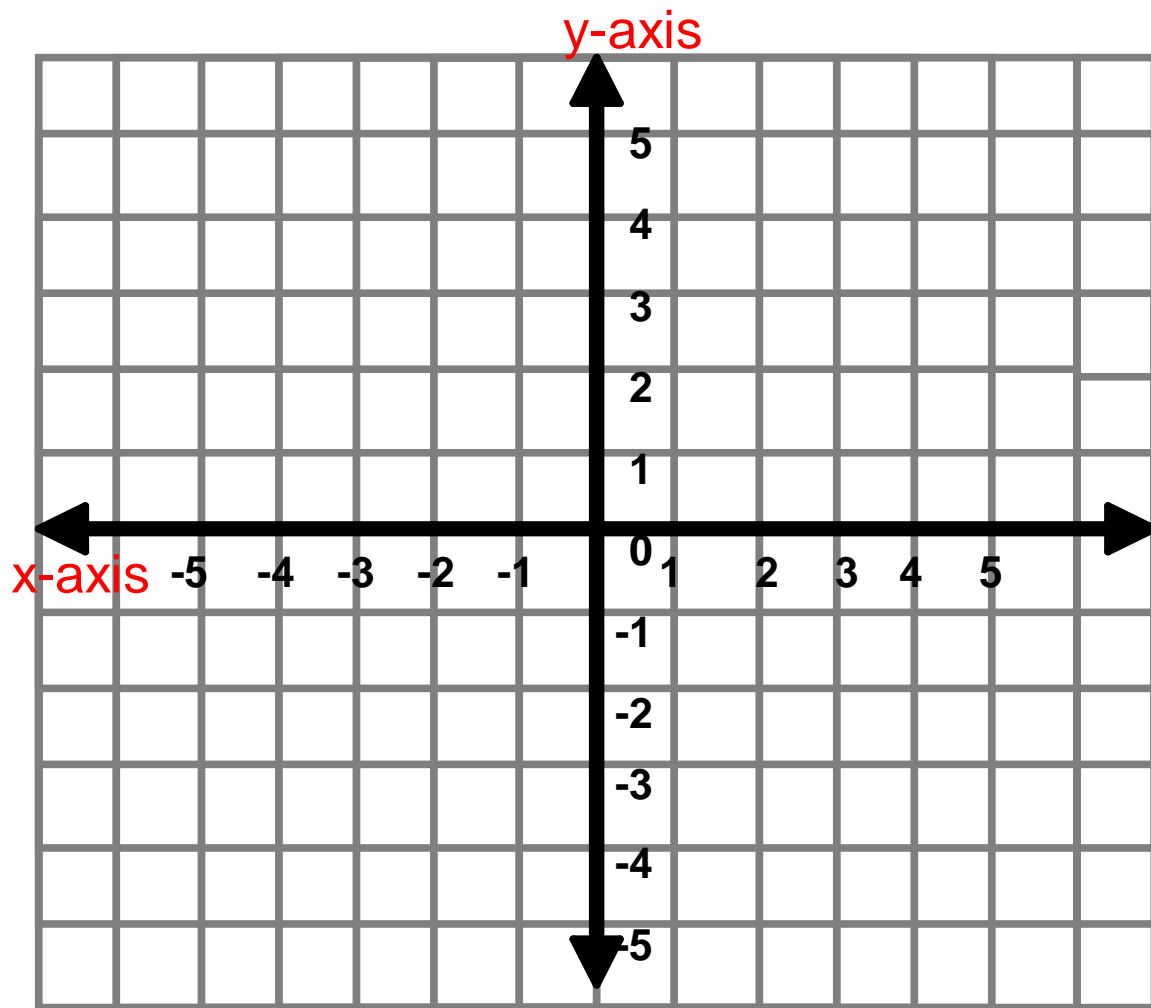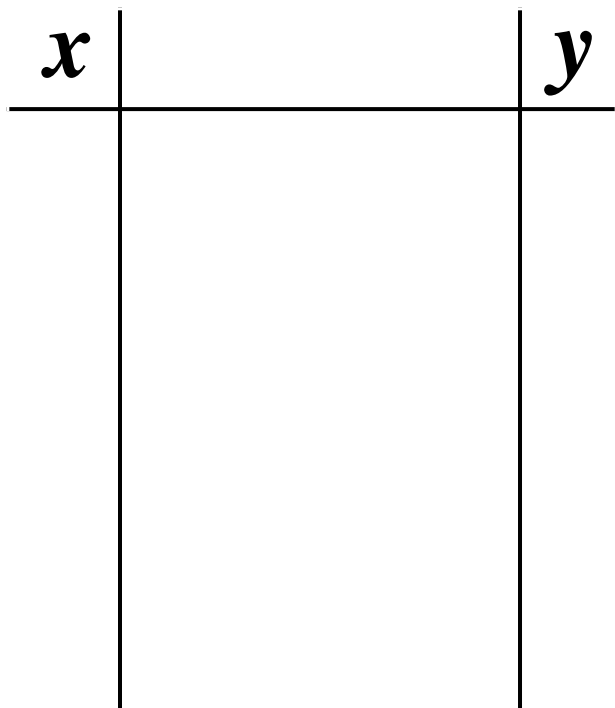# Graphing Using a Chart

1) Graph $y = 2x - 3$

x	y
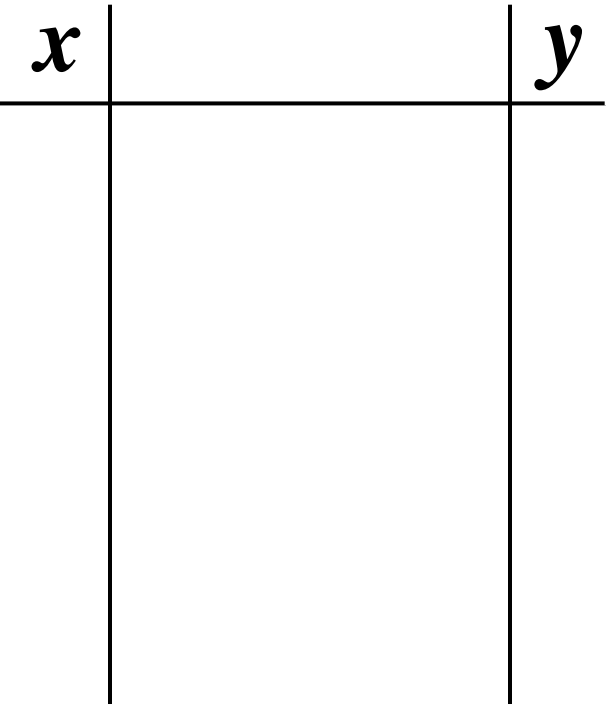
2) Graph the linear equation.

$$-3x + y = -1$$

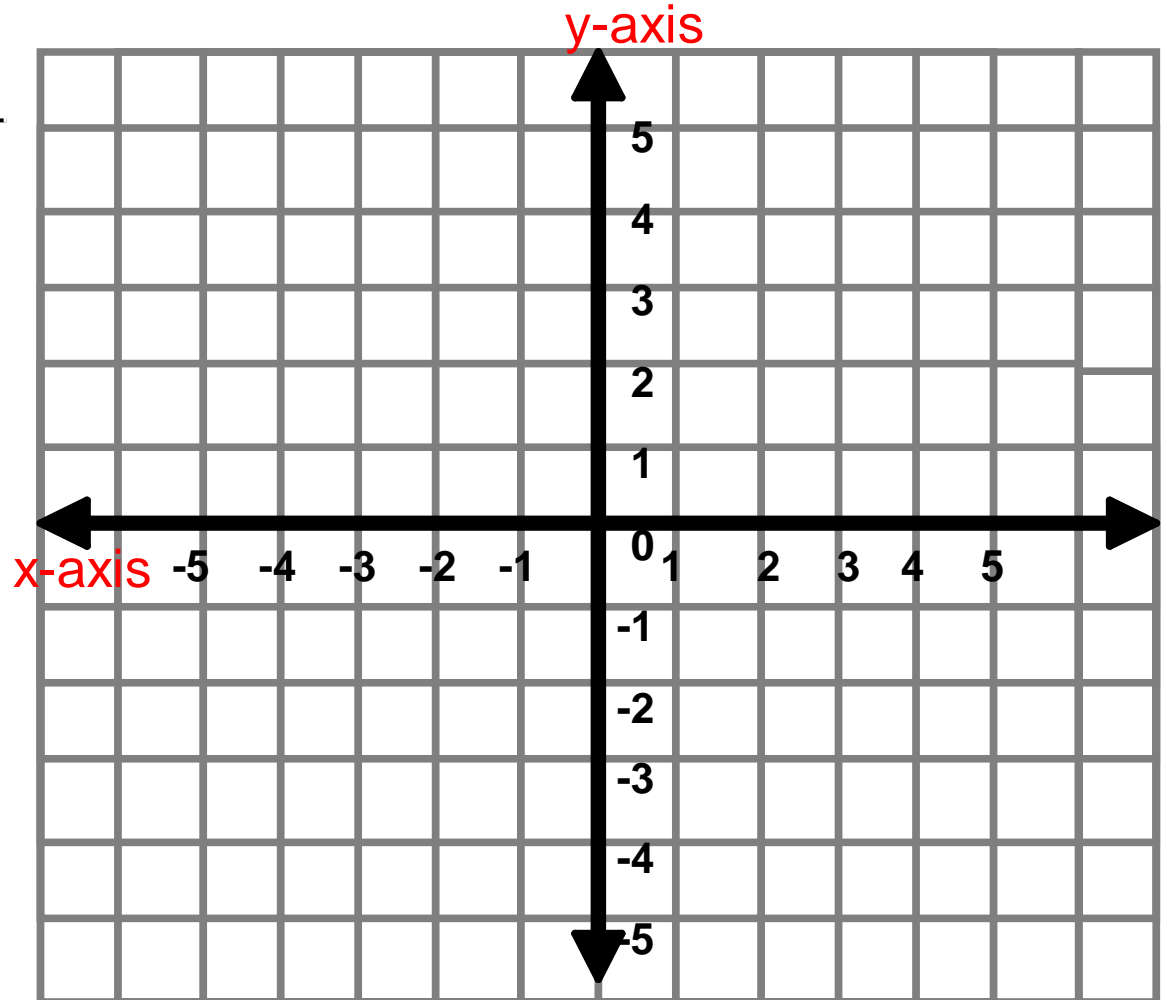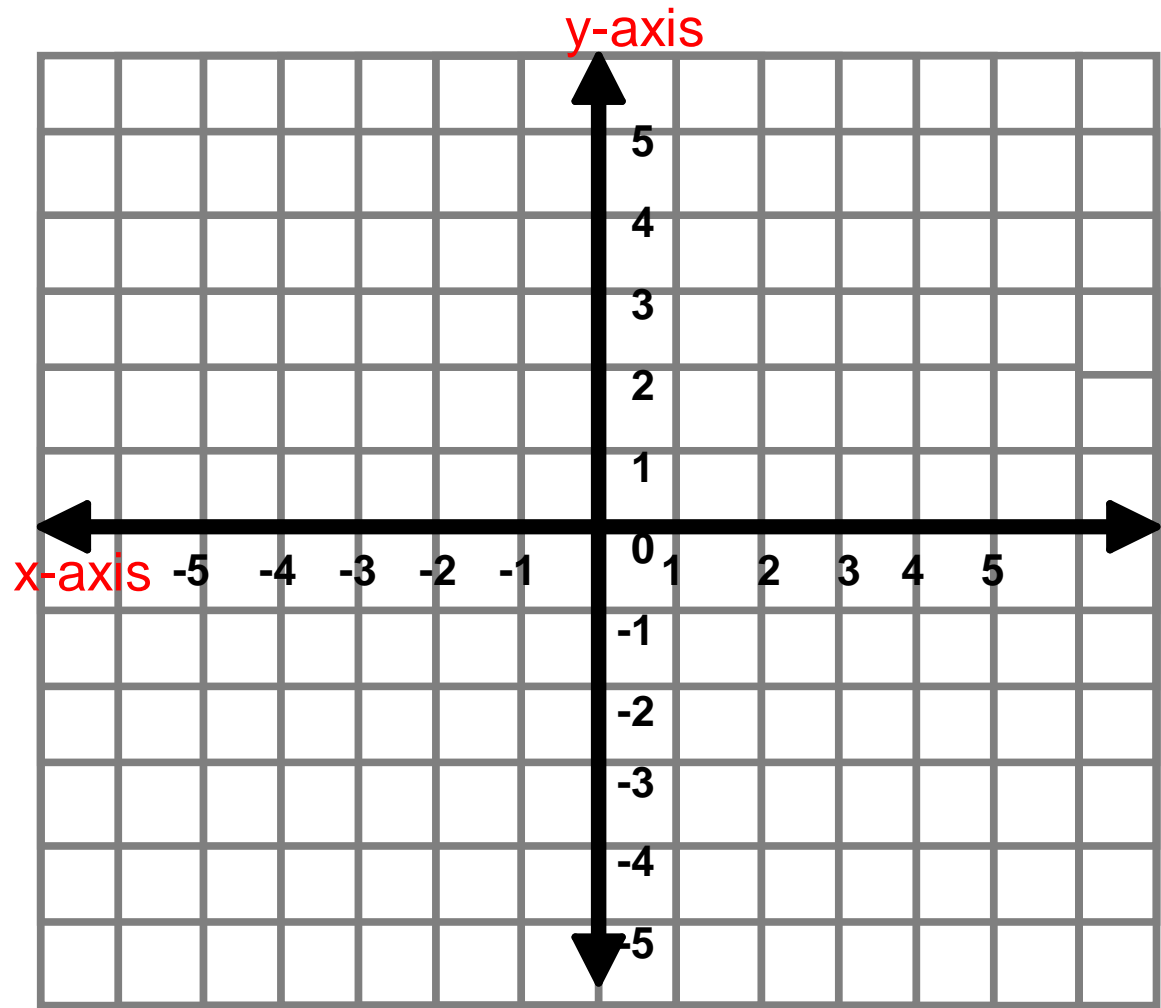| x	y

Using a T-Chart

3) Graph $y = \dfrac{1}{2}x + 1$ using T-chart.

x	y

y-axis

x-axis -5 -4 -3 -2 -1 0 1 2 3 4 5

5
4
3
2
1
-1
-2
-3
-4
-5

Graphing Horizontal and Vertical Lines

4) $y = 4$

x	y

y-axis

x-axis   -5   -4   -3   -2   -1   0   1   2   3   4   5

5
4
3
2
1
-1
-2
-3
-4
-5
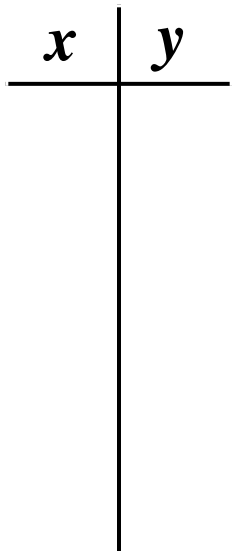
Graphing Horizontal and Vertical Lines

5) $x = 3$

x	y
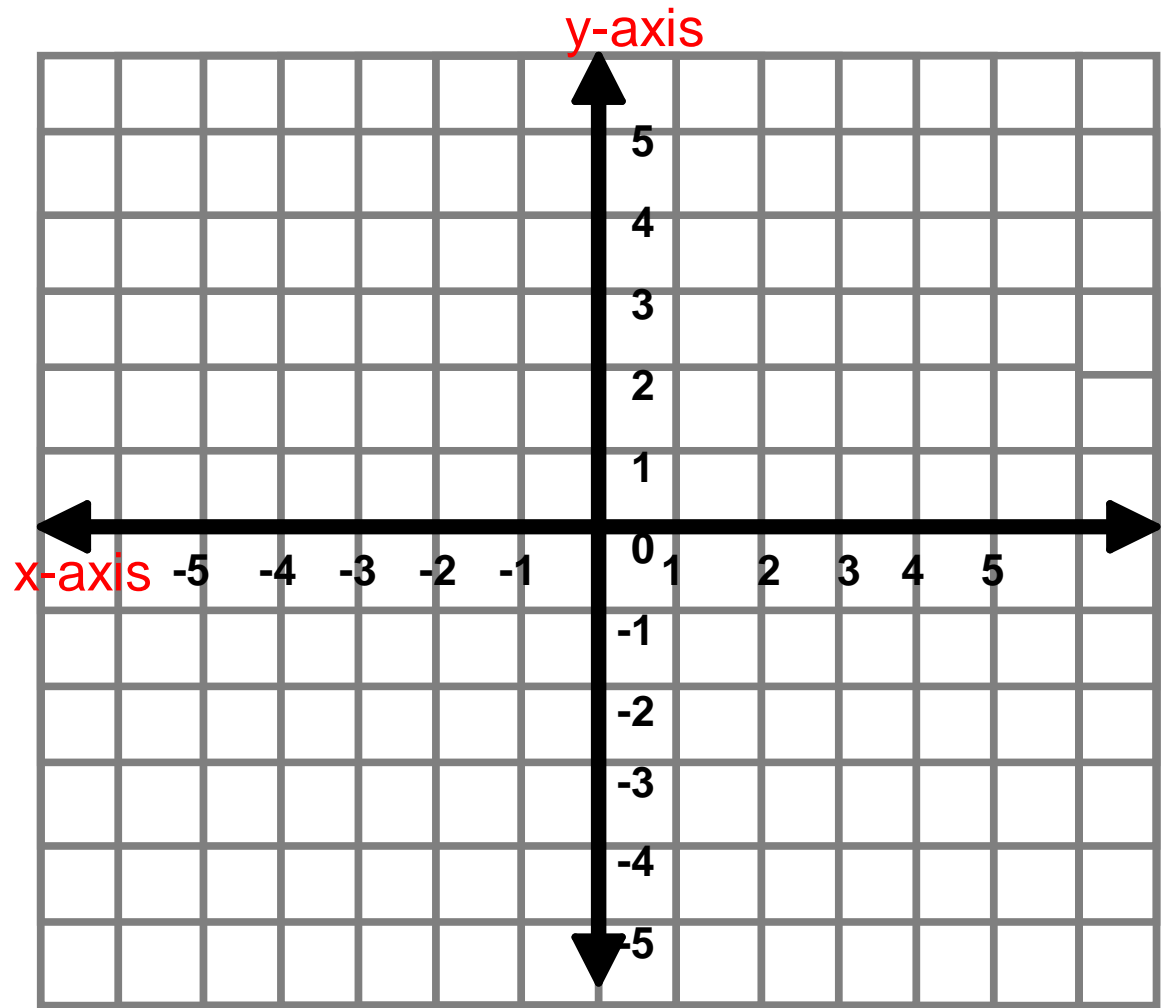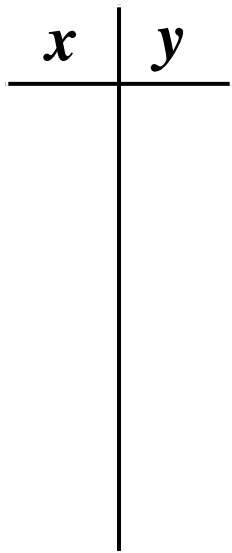
SLOPE FORMULA

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

Find the slope between the two points:

6) $(0, 7)$ *and* $(-4, -1)$

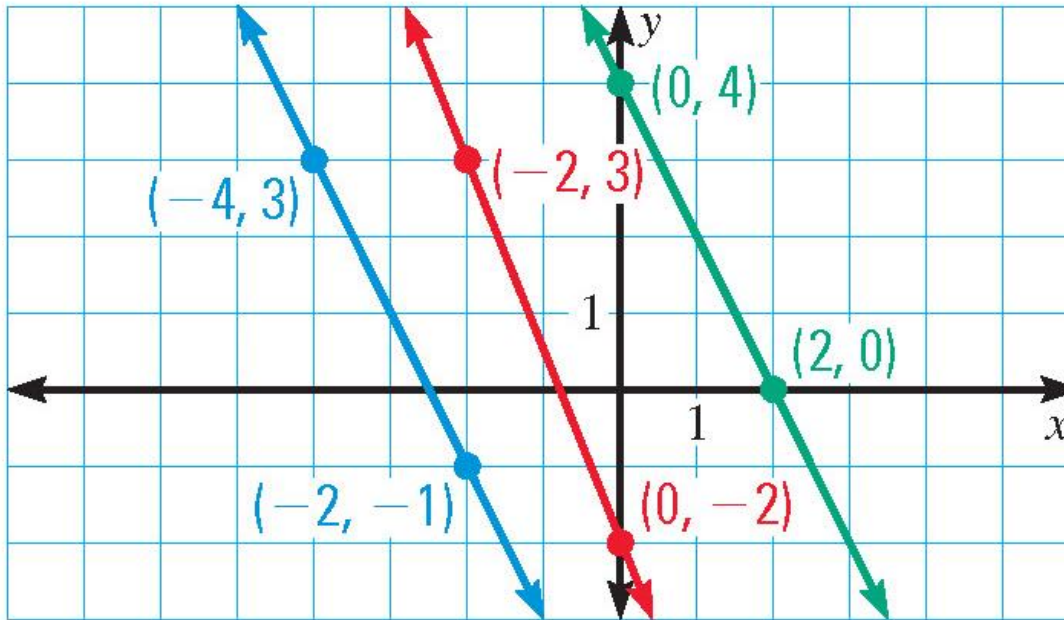7) $(-2, 5)$ *and* $(9, 5)$

Determine which lines are parallel.

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$
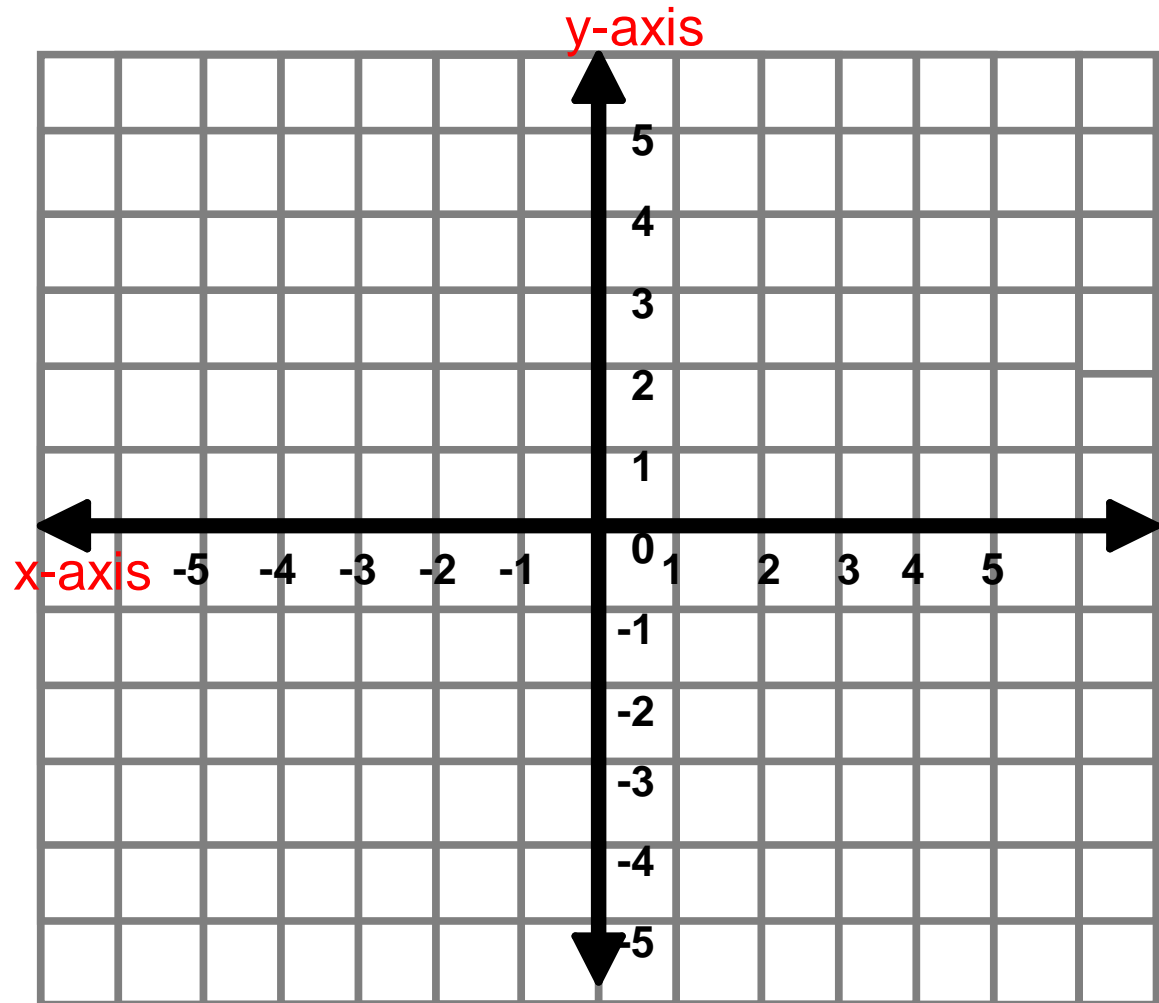
8)

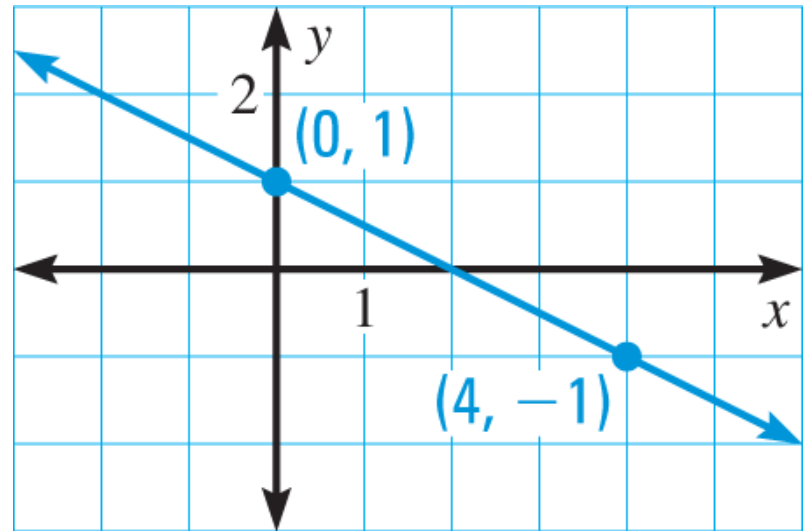**Graph the function using the slope-intercept form of a line.**

9)　　$y = 3x - 2$

Practice

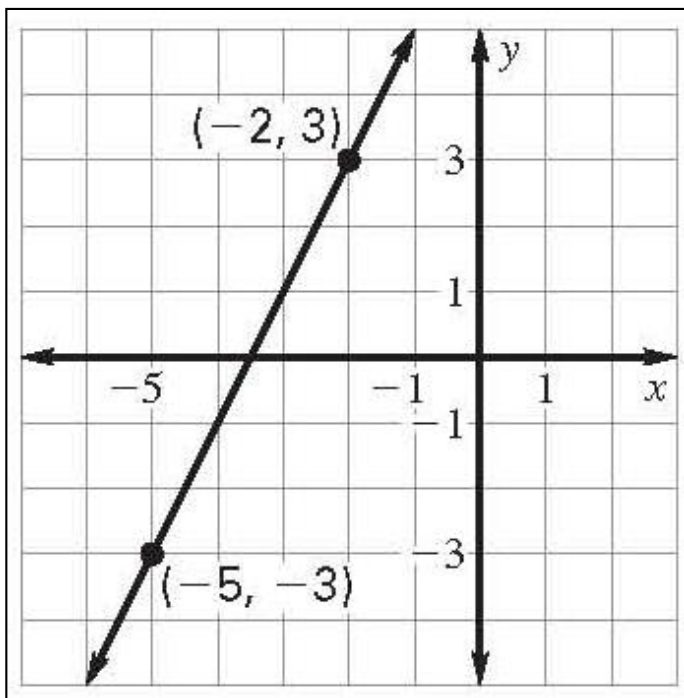**10) Write an equation of the line shown in slope-intercept form.**

Write an equation in point-slope form of the line shown.

11)

The graph shows a line passing through the points $(-2, 3)$ and $(-5, -3)$.

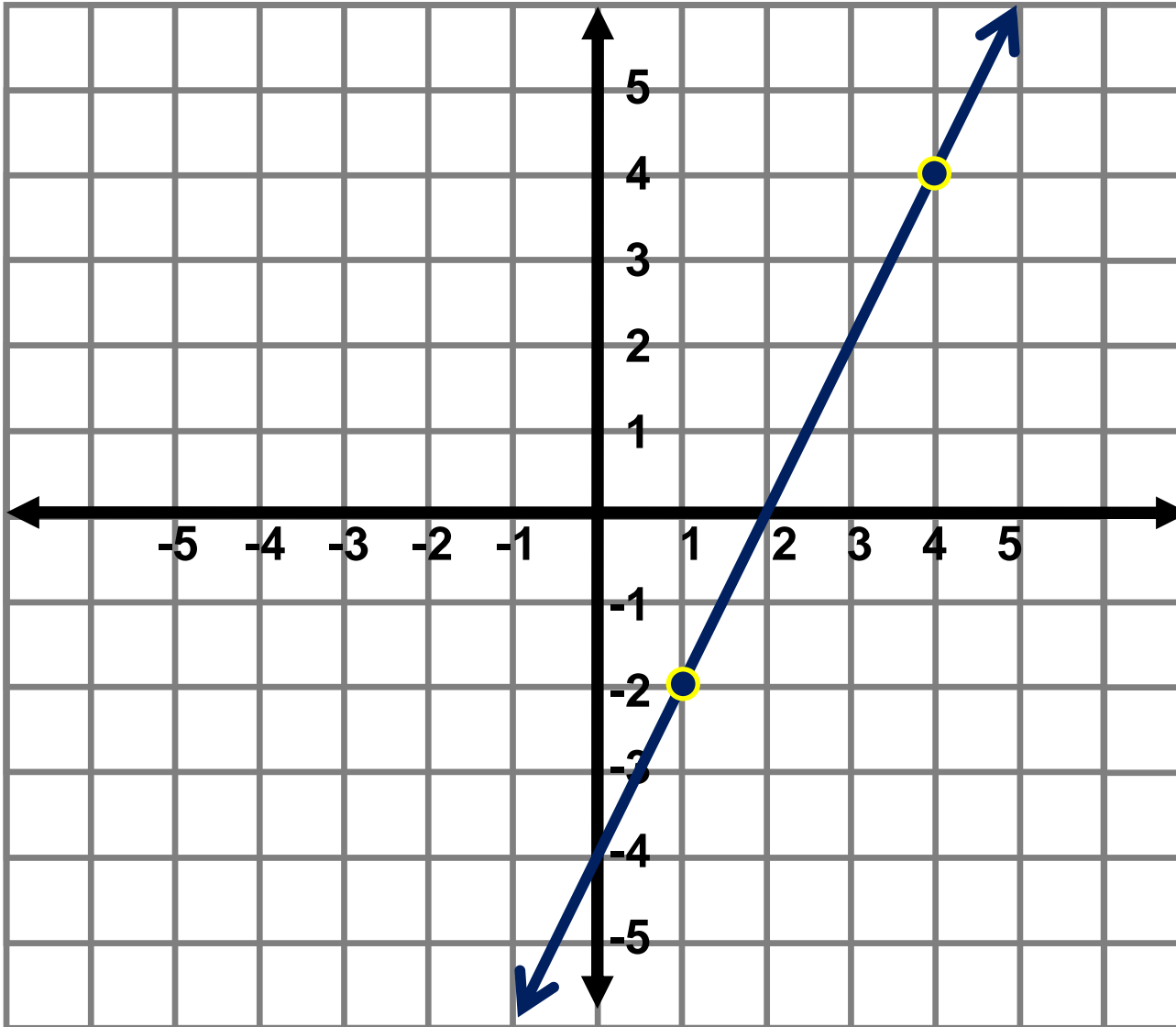**12) What is the equation of this line in slope-intercept form?**
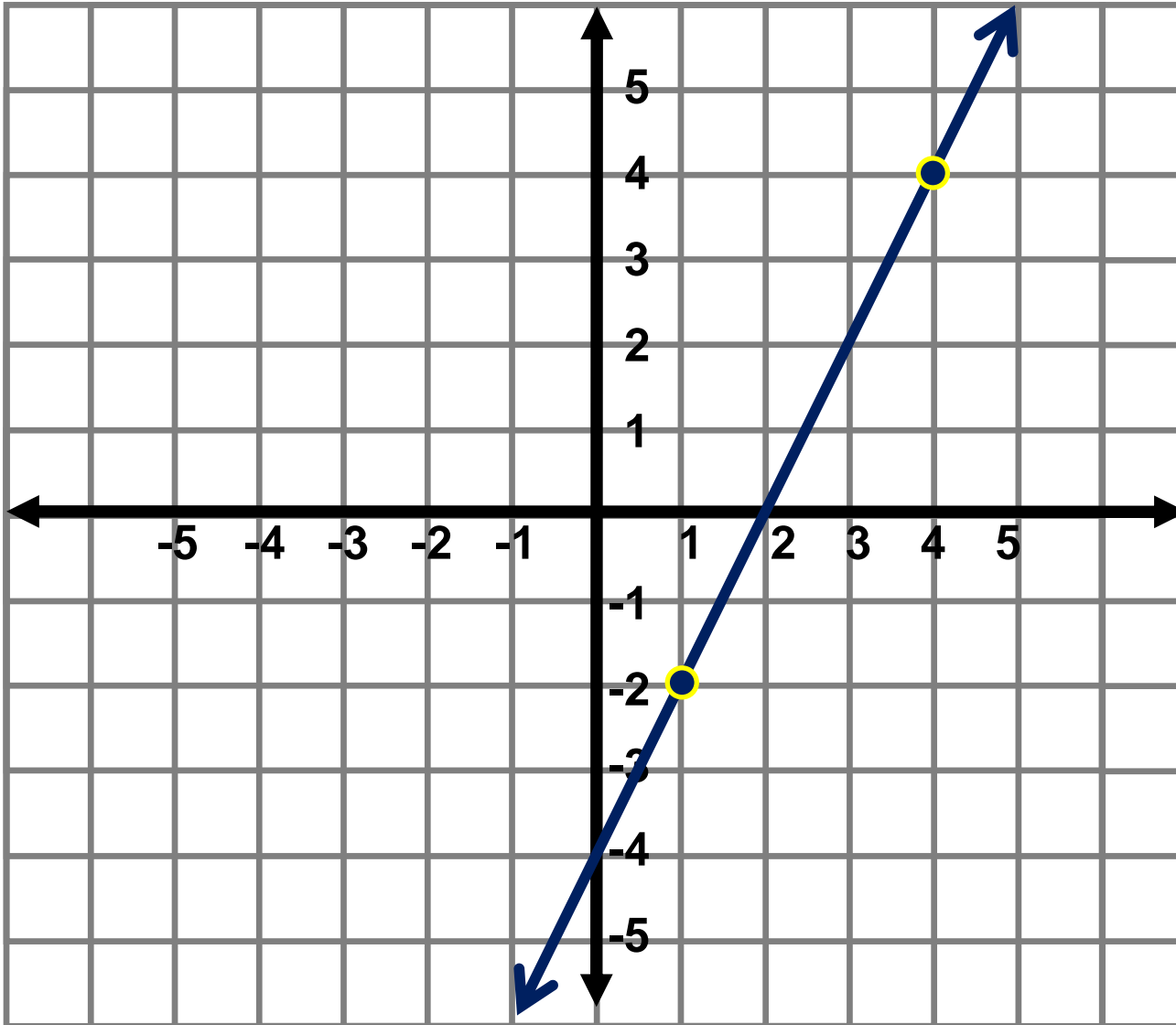
13) What is the equation of this line in point-slope form?

Practice

14)   Write an equation of the line that passes through the points (0, -5), (4, -9).

Example

15)   Write in slope-intercept form the equation of the line that passes through the points (-1, -1) and (1, 5).

16) $-3x + 9y = -18$

<u>***x*-intercept**</u>

Plug-in ***y=0*** into the equation and solve for ***x***.

<u>***y*-intercept**</u>
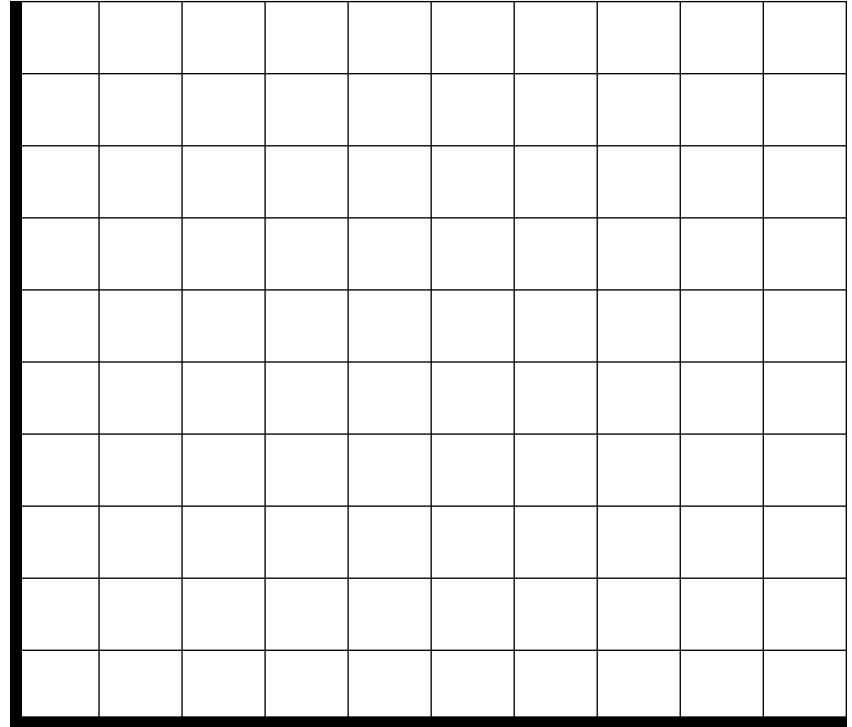
Plug-in ***x=0*** into the equation and solve for ***y***.
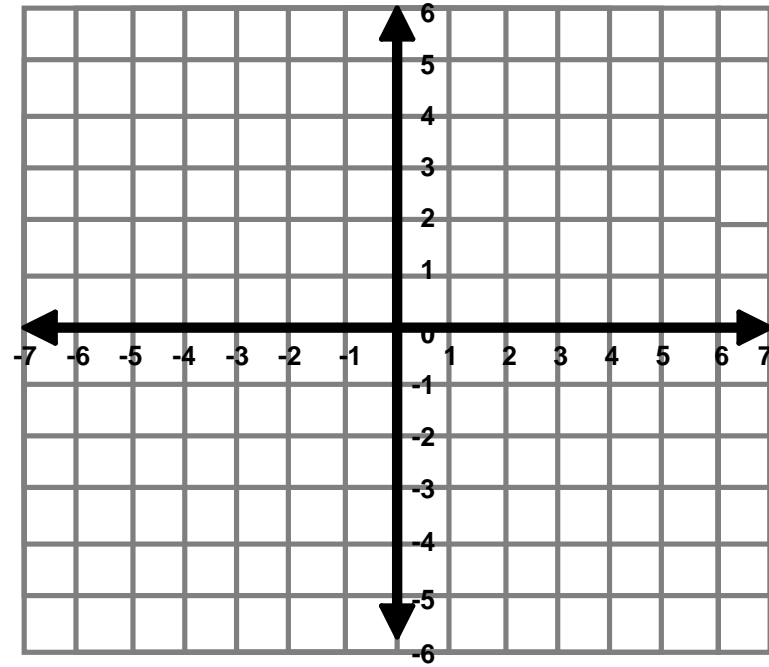
Graph the equation using the intercepts.

17) You have \$12 to spend on apples and bananas. Graph the equation $2x + 3y = 12$, where x is the number of apples and y is the number of bananas.

Interpret the intercepts.

In your own words, describe what a function is? How is it different from other relationships?

18) a) What variable represents the input in a function?

b) What are two other names for the input?

19) a) What variable represents the output in a function?

b) What are two other names for the output?

Tell whether the pairing is a function.

20) $\{(1, 3), (2, 0), (4, 4)\}$ **21)** $\{(-1, 1), (7, 2), (8, 5)\}$ **22)** $(0, -5), (2, -1), (9, 7)\}$

Determine whether the relation is a function.
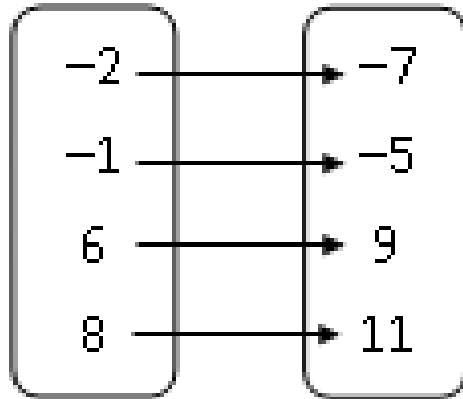
23)

x	2	3	4	5
y	4	7	10	13

24)

x	3	4	3	2
y	−2	3	2	4

List the ordered pairs shown in the mapping diagram.

25)

Input	Output
−2 →	−7
−1 →	−5
6 →	9
8 →	11

26)

Input	Output
−6	5
−3	6
0	7
3	