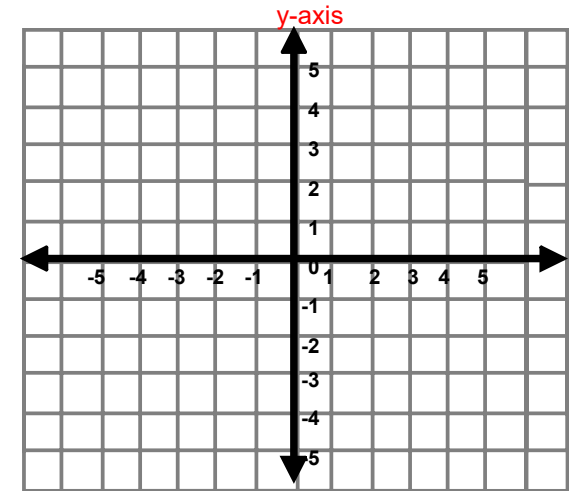


4.4 - 4.7 Review

Graphing Linear Equations

Graph the following equation using slope-intercept form.

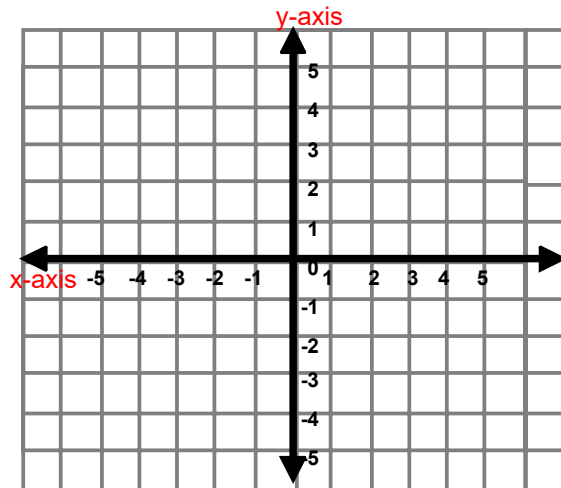
1) $y = 2x - 3$



Graphing Linear Equations

Graph the following equation using slope-intercept form.

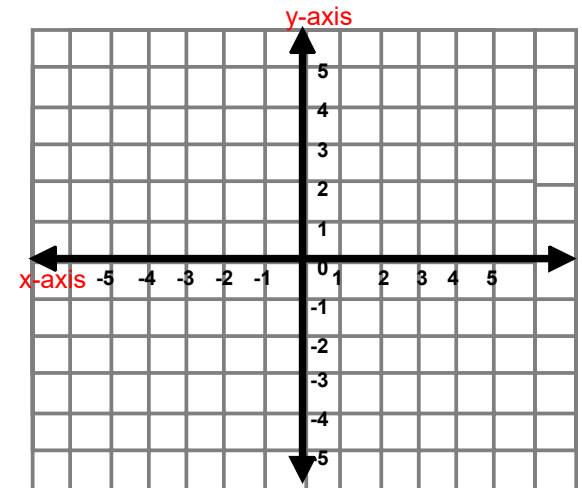
2) $y = -3x + 1$



Graphing Linear Equations

Graph the following equation using slope-intercept form.

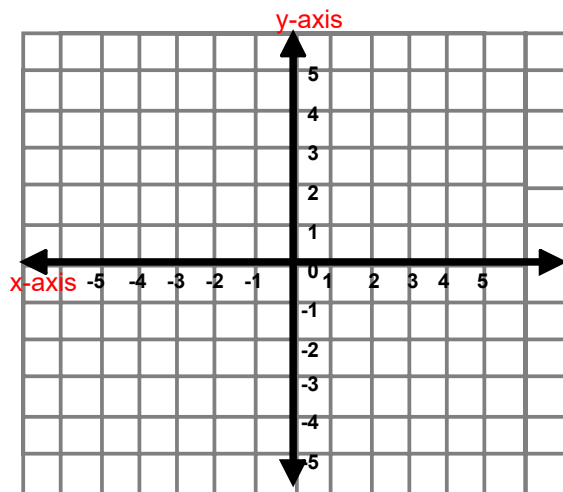
3) $y - 2 = \frac{3}{2}x$



Graphing Linear Equations

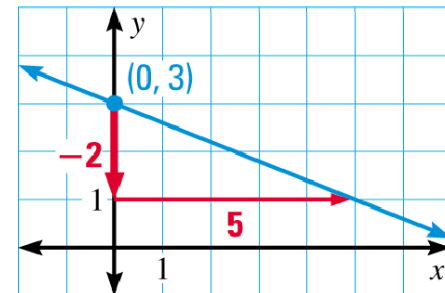
Graph the following equation using slope-intercept form.

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



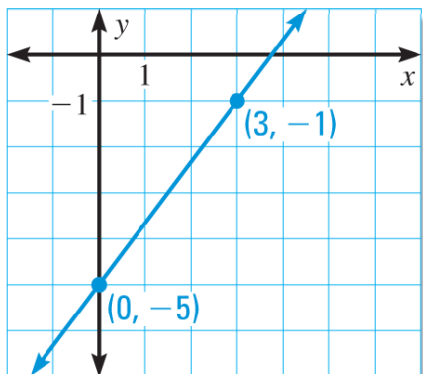
Example

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



Example

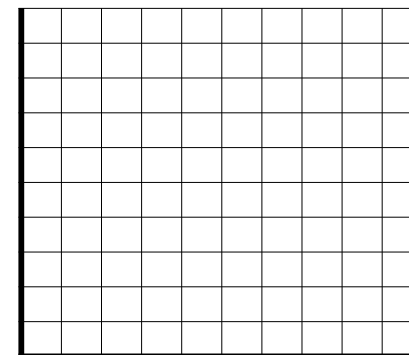
- 5) Write an equation of the line shown in slope-intercept form.



APPLICATION



- 6) The cost y (in dollars) of taking a taxi x miles is $y = 2.5x + 2$.
(a) Graph the equation. (b) Interpret the y -intercept and the slope.



Writing an Equation of Line from Two Points

- Step 1) Find the slope between the two points
- Step 2) Plug the slope into slope-intercept form
- Step 3) Find the y-int. using one of the two points

Example

- 7) Write an equation of the line that passes through the points (2, -1), (0, 6).

Writing an Equation of Line from Two Points

- Step 1) Find the slope between the two points
- Step 2) Plug the slope into slope-intercept form
- Step 3) Find the y-int. using one of the two points

Example

- 8) Write an equation of the line that passes through the points (3, -1), (0, -4).

Practice

- 9) Write an equation of the line that passes through the points (4, -3), (3, -6).

Translating Word Problems into Slope-Intercept Form

- 10) For babysitting, Nicole charges a flat fee of \$3, plus \$5 per hour. Write an equation for the cost, y , after x hours of babysitting.
- 11) A canoe rental service charges a \$20 transportation fee and \$30 dollars an hour to rent a canoe. Write and graph an equation representing the cost, y , of renting a canoe for x hours.

Translating Word Problems into Standard Form

- 12) A 100-point test has x questions worth 2 points apiece and y questions worth 4 points apiece.

What is the total that is given? _____

What do the variables stand for:

$x =$ _____, $y =$ _____

- a. Write an equation that describes all possible numbers of questions that may be on the test.
- b. If you have 24 questions worth 4 points apiece, how many questions will be worth 2 points apiece?

Translating Word Problems into Standard Form

- 13) The Ramy family bought 4 sandwiches and 3 salads. They spent \$24. Let x be the cost of a sandwich and y be the cost of a salad.

What is the total that is given? _____

What do the variables stand for:

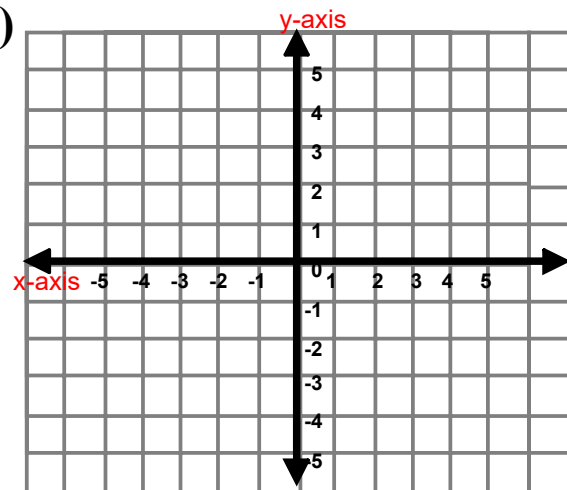
$x =$ _____, $y =$ _____

- a. Write an equation.
- b. If each sandwich costs \$3.75, how much did each salad cost?

Example

- 14) Graph the equation

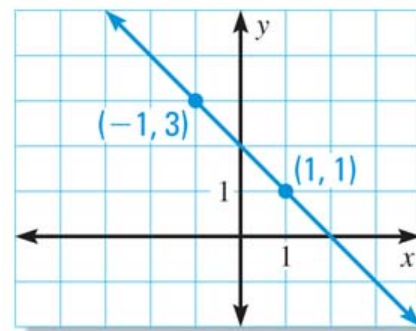
$$y + 2 = \frac{2}{3}(x - 3)$$



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

Example

- 15) Write an equation of the line the graph in point-slope form.



Practice

Write an equation in point-slope form of the line that passes through the given point and has the given slope m .

16) $(4, -10); m = 2$

Practice

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

17)

