

Name:

**8.5 Classwork: Analytic geometry**

**8.F.A.3**

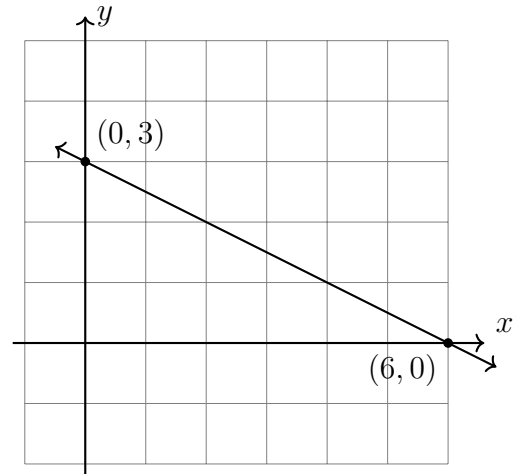
1. A line is plotted in the graph below.

(a) Write down the  $y$ -intercept of the line.

(b) What is the slope of the line?

(c) What is the  $x$ -intercept of the line?

(d) Write down its equation in slope-intercept form.



2. Find the slope of the line through the points  $(-1, 4)$  and  $(1, 6)$ .

3. A line has a slope of  $\frac{3}{5}$  and passes through the point  $(10, 7)$ .

(a) Write the equation of the line in the form  $(y - y_1) = m(x - x_1)$ .

(b) Rewrite the equation of the line in the form  $y = mx + b$ .

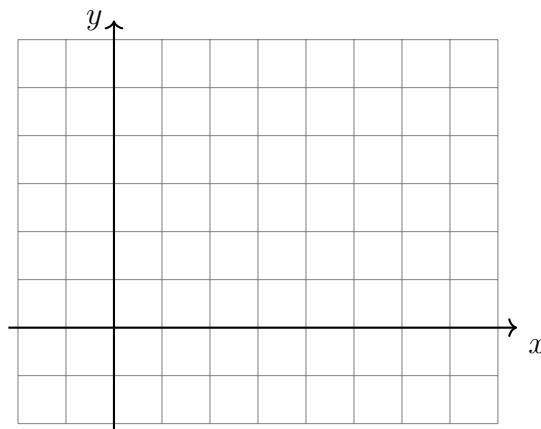
## Systems of equations

## HSG.REI.C.6

4. Graph and label the two equations. Mark their intersection as an ordered pair.

$$f(x) = -\frac{1}{2}x + 4$$

$$g(x) = \frac{1}{3}x - 1$$



5. Dr. Huson buys six pizza pies for the Pi Day party, some plain, some special with all the toppings. Plain pizzas cost \$10 and “everything” pizzas \$15. The total cost was \$75. How many of each pizza did he buy?

Let  $x$  be the number of plain pizzas and  $y$  be the number of pizzas with everything.

- (a) Write an equation and graph a line to represent a total of six pizzas.
- (b) Make a second equation and line representing the \$75 total cost.
- (c) Mark the intersection as an ordered pair and state the number of each type of pizza.

