



## Writing Linear Equations in Standard Form

Name: \_\_\_\_\_

Date: \_\_\_\_\_

- Slope-Intercept Form:  $y = mx + b$ , where  $m$  equals slope and  $b$  is the  $y$ -intercept
- Point-Slope Form:  $y - y_1 = m(x - x_1)$ , where  $m$  equals the slope,  $(x_1, y_1)$  is a point on the graph
- Standard Form:  $Ax + By = C$ , where all  $A, B$ , and  $C$  stand for constant integers

Directions: Write each equation in standard form using integers.

1.  $y = 3x + 1$

2.  $y = \frac{1}{2}x - 3$

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

4.  $y = -2x$

5.  $y = \frac{7}{2}x + \frac{1}{4}$

6.  $y = -\frac{2}{5}x + \frac{9}{20}$

Write an equation in standard form given two points.

7.  $(-3, 1)$  and  $(5, 4)$

8.  $(5, -6)$  and  $(2, 3)$

9.  $(-1, -2)$  and  $(1, 4)$

10.  $(-2, 0)$  and  $(0, -2)$

Write the linear equation in standard form given the following information.

11. Passes through (2, 3) and has a slope of 3

12. Slope of  $-\frac{3}{2}$ , passing through (2, -3)

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

14.  $y + 5 = -\frac{1}{3}(x - 9)$

15. Write an equation of a line in standard form that has the same slope as the line  $3x - 5y = 7$  and the same  $y$ -intercept as the line  $2y - 9x = 8$ .

16. Write the equation of the line in standard form.

