State whether each equation or function is linear. Write yes or no. If no, explain.

1.
$$\frac{x}{2} - y = 7$$

2.
$$\sqrt{x} = y + 5$$

3.
$$g(x) = \frac{2}{x-3}$$

4.
$$x = 3 + y$$

5.
$$f(x) = 7$$

6.
$$\frac{3}{x} - \frac{1}{4} = \frac{4}{3}$$

Write each equation in standard form. Identify A, B, and C.

7.
$$x + 7 = y$$

8.
$$x = -3y$$

9.
$$5x = 7y + 3$$

10.
$$y = \frac{2}{3}x + 8$$

11.
$$-0.4x = 10$$

12.
$$0.75y = -6$$

Find the *x*-intercept and the *y*-intercept of the graph of each equation. Then graph the equation.

13.
$$2x + y = 6$$

14.
$$3x - 2y = -12$$

15.
$$y = -x$$

16.
$$x = 3y$$

17.
$$\frac{3}{4}y - x = 1$$

18.
$$y = -3$$