Name _____ Date _____

# 3.4 Practice B

**In Exercises 1–3, graph the linear equation.**

**1.** $y = 1$ **2.** $x = -2$ **3.** $y = 0$

**In Exercises 4–7, find the *x*- and *y*-intercepts of the graph of the linear equation.**

**4.** $-5x + 7y = -35$ **5.** $-6x - 9y = 54$

**6.** $4x - 3y = 1$ **7.** $x - 5y = 2$

**In Exercises 8–13, use intercepts to graph the linear equation. Label the points corresponding to the intercepts.**

**8.** $-6x + 3y = -18$ **9.** $-3x + 8y = -24$

**10.** $-x + 4y = 9$ **11.** $2x - y = 3$

**12.** $-\frac{1}{3}x + y = -3$ **13.** $-\frac{3}{2}x + y = 15$

**14.** Your club is ordering enrollment gifts engraved with your club logo. Key chains cost \$5 each. Wristbands cost \$2 each. You have a budget of \$150 for the gifts. The equation $5x + 2y = 150$ models the total cost, where $x$ is the number of key chains and $y$ is the number of wristbands.

**a.** Graph the equation. Interpret the intercepts.

**b.** Your club decides to order 18 key chains. How many wristbands can you order?

**15.** Describe and correct the error in finding the intercepts of the graph of the equation.

| | |
|---|---|
| $6x + 9y = 18$ | $6x + 9y = 18$ |
| $6x + 9(0) = 18$ | $6(0) + 9y = 18$ |
| $6x = 18$ | $9y = 18$ |
| $x = 3$ | $y = 2$ |

The $x$-intercept is at $(0, 3)$, and the $y$-intercept is at $(2, 0)$.

**16.** Write an equation in standard form of a line whose $x$-intercept is an integer and $y$-intercept is a fraction. Explain how you know that the $x$-intercept is an integer and the $y$-intercept is a fraction.