Name _____

3-1A Lesson Master

SKILLS Objective A

In 1–3, find a. the slope, b. the *y*-intercept, and c. the *x*-intercept (if any) of the given line.

1. $y = \frac{2}{3}x - 5$ a. _____   b. _____   c. _____

2. $y = 0.72x + 13.85$ a. _____   b. _____   c. _____

3. $y = -5$ a. _____   b. _____   c. _____

4. Find the slope of the line through (–2, 5) and (3, –7). _____

PROPERTIES Objective E

5. **True or False** The lines $y = 2x + 3$ and $y = 3x + 2$ are parallel. _____

6. Tell whether each situation represents a slope of $\frac{2}{5}$.

   a. A vertical change of 2 units for each horizontal change of 5 units. _____

   b. A vertical change of 0.4 units for each horizontal change of 1 unit. _____

   c. A vertical change of –4 units for each horizontal change of –10 units. _____

7. For what values of *m* does $y = mx + b$ model constantly decrease? _____

USES Objective G

8. Ms. Adams has 32 ounces of water in a bottle. She can drink 5 ounces an hour.

   a. How much water does she have left after *n* hours? _____

   b. How many hours will it take her to finish the bottle of water? _____

9. The temperature of an oven is 350°F before being turned off. The temperature drops at a constant rate to 190°F in 20 minutes.

   a. Convert the rate of change to °F per minute. _____

   b. Find how long it takes for the oven to cool to 150°F. _____

Name _____

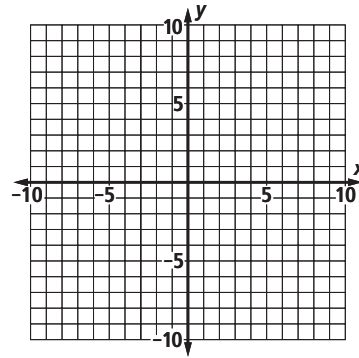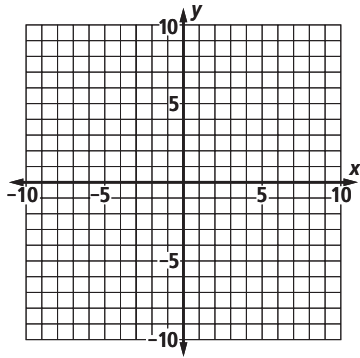**3-1A**   **page 2**

REPRESENTATIONS Objective M

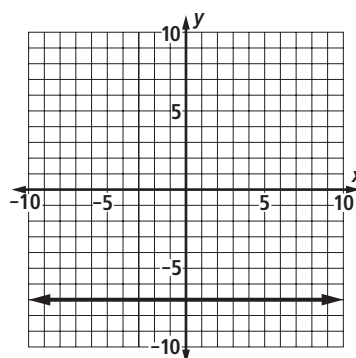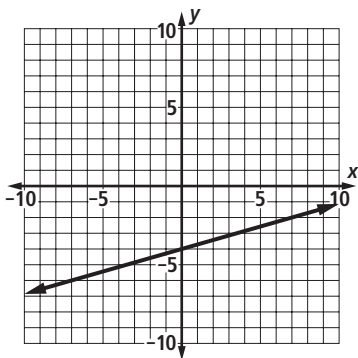**In 10 and 11, graph the lines. Identify the coordinates of at least two points on each line.**

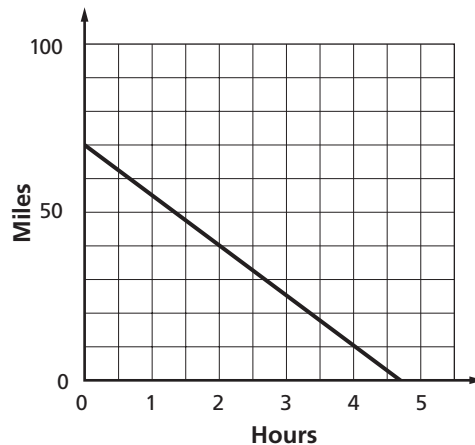**10.** $y = -\frac{3}{4}x + 7$ **11.** $y = -2$

_____   _____

In 12 and 13, find an equation of the given line. Key points have integer coordinates.

12. _____ **13.** _____

14. Mackenna is training for a bicycle trip. One day, she starts at her home and heads to her grandparents' house, where she will spend the night. The graph at the right shows her distance from her grandparents' house.

   a. Use the points (0, 70) and (2, 40) to find Mackenna's speed on this trip. _____

   b. Find an equation for her distance from her grandparents' house after she has biked for x hours.

   _____

   c. How many hours will this trip take?

   _____