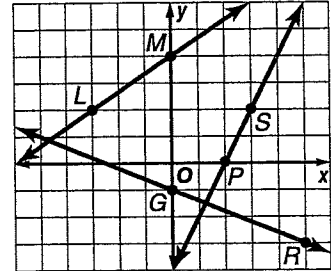## 3-4 Practice

Slopes of Lines

Determine the slope of the line that contains the given points.

1. $B(-4, 4), R(0, 2)$

2. $I(-2, -9), P(2, 4)$

Find the slope of each line.

3. $\overleftrightarrow{LM}$

4. $\overleftrightarrow{GR}$

5. a line parallel to $\overleftrightarrow{GR}$

6. a line perpendicular to $\overleftrightarrow{PS}$

Determine whether $\overleftrightarrow{KM}$ and $\overleftrightarrow{ST}$ are *parallel, perpendicular,* or *neither*.
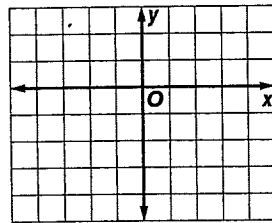
7. $K(-1, -8), M(1, 6), S(-2, -6), T(2, 10)$

8. $K(-5, -2), M(5, 4), S(-3, 6), T(3, -4)$

9. $K(-4, 10), M(2, -8), S(1, 2), T(4, -7)$

10. $K(-3, -7), M(3, -3), S(0, 4), T(6, -5)$
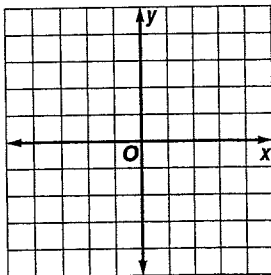
Graph the line that satisfies each condition.
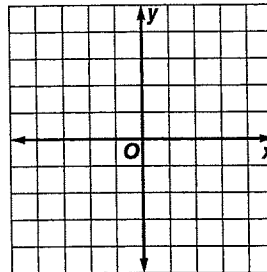
11. slope $= -\dfrac{1}{2}$, contains $U(2, -2)$
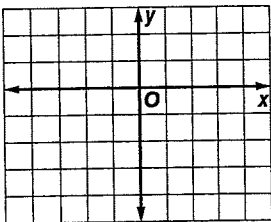
12. slope $= \dfrac{4}{3}$, contains $P(-3, -3)$

13. contains $B(-4, 2)$, parallel to $\overleftrightarrow{FG}$ with $F(0, -3)$ and $G(4, -2)$

14. contains $Z(-3, 0)$, perpendicular to $\overleftrightarrow{EK}$ with $E(-2, 4)$ and $K(2, -2)$

15. PROFITS After Take Two began renting DVDs at their video store, business soared. Between 2000 and 2005, profits increased at an average rate of $9,000 per year. Total profits in 2005 were $45,000. If profits continue to increase at the same rate, what will the total profit be in 2009?

3-5 Practice

Equations of Lines

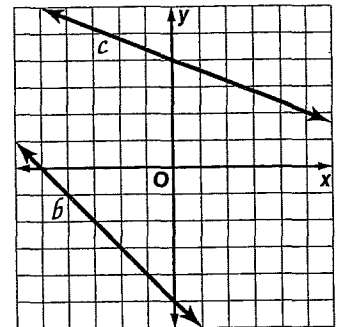**Write an equation in slope-intercept form of the line having the given slope and y-intercept.**

1. $m: \frac{2}{3}$, y-intercept: -10 **2.** $m: -\frac{7}{9}, \left(0, -\frac{1}{2}\right)$ **3.** $m: 4.5, (0, 0.25)$

Write equations in point-slope form and slope-intercept form of the line having the given slope and containing the given point.

4. $m: \frac{3}{2}, (4, 6)$ **5.** $m: -\frac{6}{5}, (-5, -2)$

6. $m: 0.5, (7, -3)$ **7.** $m: -1.3, (-4, 4)$

Write an equation in slope-intercept form for each line.

8. b **9.** c

10. parallel to line b, contains $(3, -2)$

11. perpendicular to line c, contains $(-2, -4)$

Write an equation in slope-intercept form for the line that satisfies the given conditions.

12. $m = -\frac{4}{9}$, y-intercept $= 2$ **13.** $m = 3$, contains $(2, -3)$

14. x-intercept is -6, y-intercept is 2   **15.** x-intercept is 2, y-intercept is -5

16. passes through $(2, -4)$ and $(5, 8)$ **17.** contains $(-4, 2)$ and $(8, -1)$

18. COMMUNITY EDUCATION A local community center offers self-defense classes for teens. A $25 enrollment fee covers supplies and materials and open classes cost $10 each. Write an equation to represent the total cost of x self-defense classes at the community center.

Lesson 3-4