



## Practice

### 5.4 The Slope-Intercept Form

Give the coordinates of the point where each line crosses the  $y$ -axis.

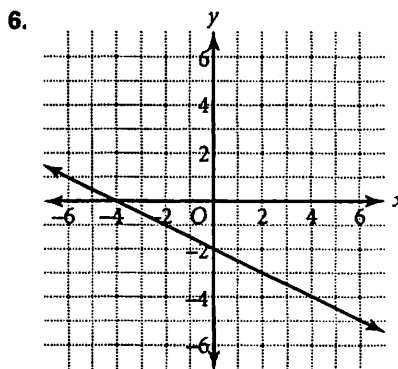
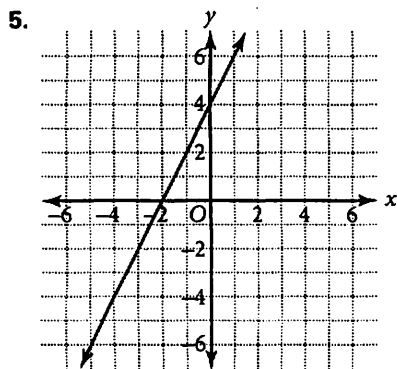
1.  $y = 3x + 4$  \_\_\_\_\_

2.  $y = 2x - 3$  \_\_\_\_\_

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

4.  $y = 2 - x$  \_\_\_\_\_

Write an equation for the graph of each line.



Write an equation for each line.

7. with a slope of 2 and a  $y$ -intercept of 4 \_\_\_\_\_

8. with a slope of  $-3$  and a  $y$ -intercept of 1 \_\_\_\_\_

9. through  $(0, -4)$  and with a slope of 2 \_\_\_\_\_

10. through  $(0, 6)$  and with a slope of  $\frac{1}{2}$  \_\_\_\_\_

11. with a slope of  $-\frac{3}{4}$  and a  $y$ -intercept of  $-3$  \_\_\_\_\_

12. through  $(0, 1)$  and with a slope of 1.5 \_\_\_\_\_

Write an equation for the line containing each pair of points.

13.  $(3, 8), (2, 6)$  \_\_\_\_\_

14.  $(0, -6), (-3, 3)$  \_\_\_\_\_

15.  $(-2, -4), (5, -1)$  \_\_\_\_\_

16.  $(-1, -2), (-3, -4)$  \_\_\_\_\_

# WINTER SLOPES

What two basic types of skiing are practiced on snowy slopes throughout the world?

(Hint: One includes slalom racing and the other includes ski-jumping.)

Find the slope for each pair of coordinate points and identify the answer in the opposite column. Write in front of each exercise number the corresponding letter (in parenthesis). The letters next to odd-numbered problems will spell out one of the answers to the question; the letters next to even-numbered problems will spell out the other.



**Tip:** To find the slope of a line given two points,  $(x_1, x_2)$  and  $(y_1, y_2)$ , use the formula  $m = (y_2 - y_1)/(x_2 - x_1)$ . For example, the slope of a line with points  $(2, 4)$  and  $(3, 6)$  is  $m = (6 - 4)/(3 - 2) \rightarrow m = 2/1 \rightarrow m = 2$ .

- |                             |               |
|-----------------------------|---------------|
| ___ 1. $(2, 3), (4, 2)$     | (N) 2         |
| ___ 2. $(-1, 0), (1, 0)$    | (L) 3         |
| ___ 3. $(-2, 3), (4, 21)$   | (I) 5         |
| ___ 4. $(-6, 5), (-7, 8)$   | (P) 1         |
| ___ 5. $(-2, -2), (-1, -1)$ | (D) undefined |
| ___ 6. $(8, -4), (-4, 8)$   | (O) -3        |
| ___ 7. $(-3, 5), (3, 8)$    | (C) 7         |
| ___ 8. $(-7, 1), (-7, -1)$  | (N) 0         |
| ___ 9. $(10, 12), (12, 16)$ | (E) -2        |
| ___ 10. $(9, -8), (13, 12)$ | (R) -1        |
| ___ 11. $(-1, 2), (0, 0)$   | (A) $-1/2$    |
| ___ 12. $(6, -5), (8, 9)$   | (I) $1/2$     |

Answer: \_\_\_\_\_