# 4.4 EXERCISES

## SKILL PRACTICE

1. **VOCABULARY** Copy and complete: The __?__ of a nonvertical line is the ratio of the vertical change to the horizontal change between any two points on the line.

2. **WRITING** Without calculating the slope, how can you tell that the slope of the line that passes through the points $(-5, -3)$ and $(2, 4)$ is positive?

3. **ERROR ANALYSIS** *Describe* and correct the error in calculating the slope of the line passing through the points $(5, 3)$ and $(2, 6)$.

$$m = \frac{6 - 3}{5 - 2} = \frac{3}{3} = 1 \quad ✗$$
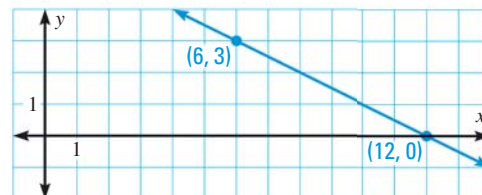
**EXAMPLES 1, 2, 3, and 4**
on pp. 235–236 for Exs. 4–18

**FINDING SLOPE** Tell whether the slope of the line is *positive, negative, zero,* or *undefined*. Then find the slope if it exists.

4.


5.


6.
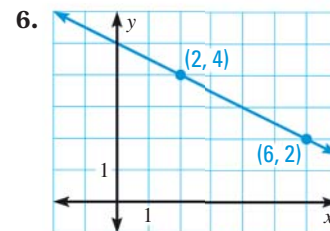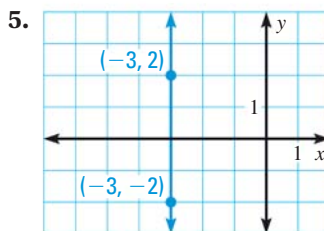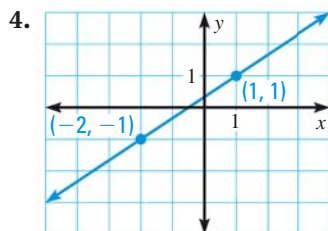

7. **ERROR ANALYSIS** *Describe* and correct the error in calculating the slope of the line shown.

$$m = \frac{12 - 6}{0 - 3} = \frac{6}{-3} = -2 \quad ✗$$



**FINDING SLOPE** Find the slope of the line that passes through the points.

8. $(-2, -1)$ and $(4, 5)$

9. $(-3, -2)$ and $(-3, 6)$

10. $(5, -3)$ and $(-5, -3)$

11. $(1, 3)$ and $(3, -2)$

12. $(-3, 4)$ and $(4, 1)$

13. $(1, -3)$ and $(7, 3)$

14. $(0, 0)$ and $(0, -6)$

15. $(-9, 1)$ and $(1, 1)$

16. $(-10, -2)$ and $(-8, 8)$

17. 🔻 **TAKS REASONING** The slope of the line that passes through the points $(-2, -3)$ and $(8, -3)$ is __?__.

Ⓐ positive  Ⓑ negative  Ⓒ zero  Ⓓ undefined

18. 🔻 **TAKS REASONING** What is the slope of the line that passes through the points $(7, -9)$ and $(-13, -6)$?

Ⓐ $-\frac{3}{20}$  Ⓑ $\frac{3}{20}$  Ⓒ $\frac{3}{4}$  Ⓓ $\frac{5}{2}$