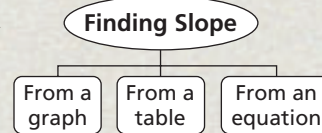


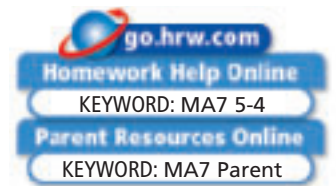
THINK AND DISCUSS

- The slope of a line is the difference of the ____?____ divided by the difference of the ____?____ for any two points on the line.
- Two points lie on a line. When you substitute their coordinates into the slope formula, the value of the denominator is 0. Describe this line.
- GET ORGANIZED** Copy and complete the graphic organizer. In each box, describe how to find slope using the given method.



5-4

Exercises



GUIDED PRACTICE

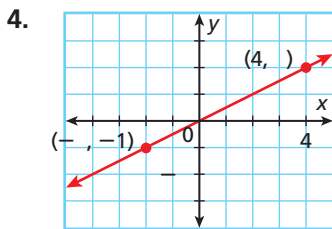
SEE EXAMPLE 1
p. 320

1 Find the slope of the line that contains each pair of points.

- $(3, 6)$ and $(6, 9)$
- $(2, 7)$ and $(4, 4)$
- $(-1, -5)$ and $(-9, -1)$

SEE EXAMPLE 2
p. 321

2 Each graph or table shows a linear relationship. Find the slope.

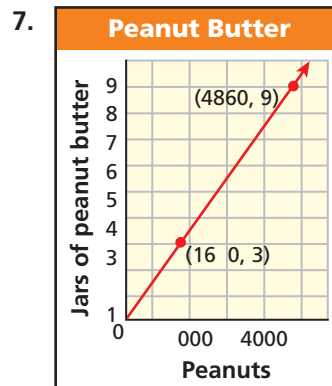
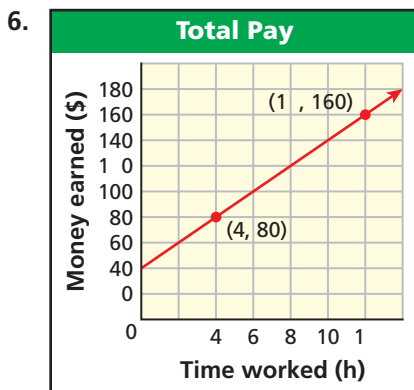


5.

x	y
0	25
2	45
4	65
6	85

SEE EXAMPLE 3
p. 322

3 Find the slope of each line. Then tell what the slope represents.



SEE EXAMPLE 4
p. 322

4 Find the slope of the line described by each equation.

- $8x + 2y = 96$
- $5x = 90 - 9y$
- $5y = 160 + 9x$

PRACTICE AND PROBLEM SOLVING

Independent Practice

For Exercises	See Example
11–13	1
14–15	2
16–17	3
18–20	4

Extra Practice

Skills Practice p. S12
Application Practice p. S32

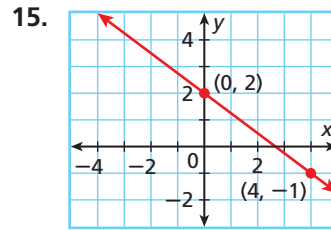
Find the slope of the line that contains each pair of points.

11. (2, 5) and (3, 1) 12. (–9, –5) and (6, –5) 13. (3, 4) and (3, –1)

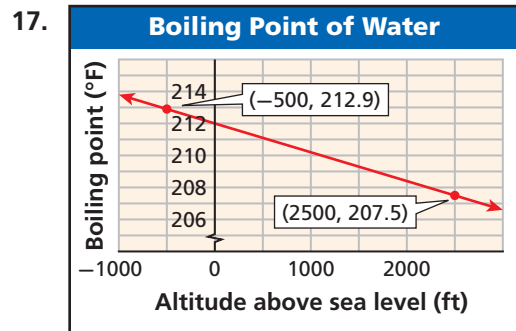
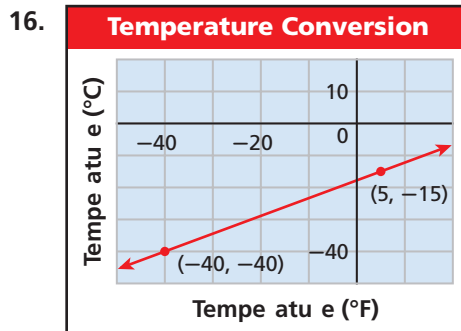
Each graph or table shows a linear relationship. Find the slope.

14.

x	y
1	18.5
2	22
3	25.5
4	29



Find the slope of each line. Then tell what the slope represents.



Find the slope of the line described by each equation.

18. $7x + 13y = 91$ 19. $5y = 130 - 13x$ 20. $7 - 3y = 9x$
21. **/// ERROR ANALYSIS ///** Two students found the slope of the line that contains (–6, 3) and (2, –1). Who is incorrect? Explain the error.

A

m	$\frac{-1 - 3}{2 - (-6)}$	$\frac{-4}{8}$	$-\frac{1}{2}$
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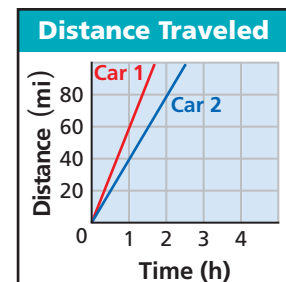
B

m	$\frac{-1 - 3}{-6 - 2}$	$\frac{-4}{-8}$	$\frac{1}{2}$
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22. **Environmental Science** The table shows how the number of cricket chirps per minute changes with the air temperature.

Temperature (°F)	40	50	60	70	80	90
Chirps per minute	0	40	80	120	160	200

- a. Find the rates of change.
b. Is the graph of the data a line? If so, what is the slope? If not, explain why not.
23. **Critical Thinking** The graph shows the distance traveled by two cars.
- a. Which car is going faster? How much faster?
b. How are the speeds related to slope?
c. At what rate is the distance between the cars changing?



24. **Write About It** You are given the coordinates of two points on a line. Describe two different ways to find the slope of that line.