EXAMPLE 2 on p. 303 for Exs. 14–19

GRAPHING EQUATIONS **Graph the equation.**

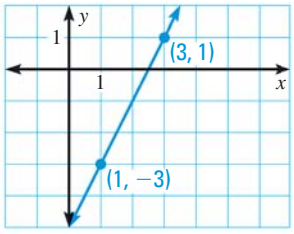
14. $y - 5 = 3(x - 1)$ **15.** $y + 3 = -2(x - 2)$ **16.** $y - 1 = 3(x + 6)$

17. $y + 8 = -(x + 4)$ **18.** $y - 1 = \frac{3}{4}(x + 1)$ **19.** $y + 4 = -\frac{5}{2}(x - 3)$

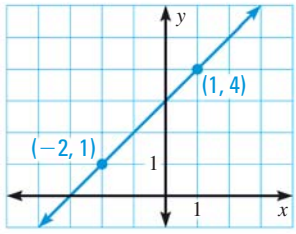
EXAMPLE 3 on p. 303 for Exs. 20–30

USING A GRAPH **Write an equation in point-slope form of the line shown.**

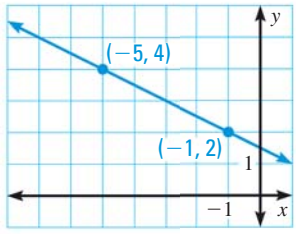
20.



21.



22.



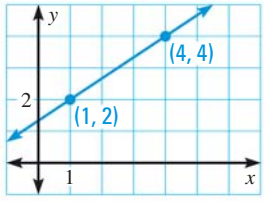
WRITING EQUATIONS **Write an equation in point-slope form of the line that passes through the given points.**

23. (7, 2), (2, 12) **24.** (6, −2), (12, 1) **25.** (−4, −1), (6, −7)

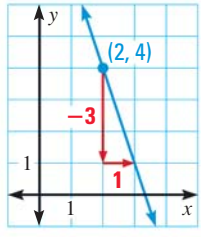
26. (4, 5), (−4, −5) **27.** (−3, −20), (4, 36) **28.** (−5, −19), (5, 13)

29. **ERROR ANALYSIS** *Describe* and correct the error in writing an equation of the line shown.

$m = \frac{4 - 2}{4 - 1} = \frac{2}{3}$ $\quad y - 2 = \frac{2}{3}(x - 4)$ ✗



30. **TAKS REASONING** The graph of which equation is shown?



Ⓐ $y + 4 = -3(x + 2)$ Ⓑ $y - 4 = -3(x - 2)$

Ⓒ $y - 4 = -3(x + 2)$ Ⓓ $y + 4 = -3(x + 2)$

TAKS REASONING **Tell whether the data in the table can be modeled by a linear equation. *Explain*. If possible, write an equation in point-slope form that relates y and x.**

31.

x	2	4	6	8	10
y	−1	5	15	29	47

32.

x	1	2	3	5	7
y	1.2	1.4	1.6	2	2.4

33.

x	1	2	3	4	5
y	2	−3	4	−5	6

34.

x	−3	−1	1	3	5
y	16	10	4	−2	−8

CHALLENGE **Find the value of k so that the line passing through the given points has slope m. Write an equation of the line in point-slope form.**

35. $(k, 4k)$, $(k + 2, 3k)$, $m = -1$ **36.** $(-k + 1, 3)$, $(3, k + 3)$, $m = 3$

= WORKED-OUT SOLUTIONS on p. WS1

= TAKS PRACTICE AND REASONING