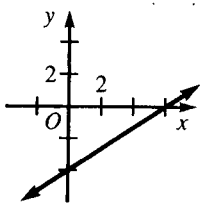
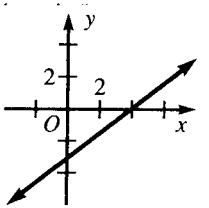
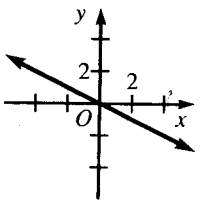
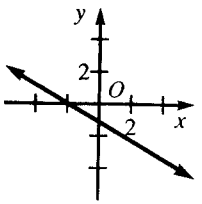
NAME _____ DATE _____

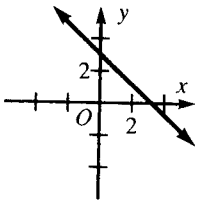
## 8–4 The Slope-Intercept Form of a Linear Equation

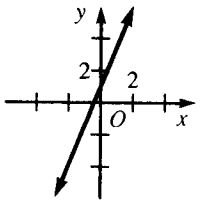
**13.** 

**14.** 

**15.** 

**16.** 

**17.** 

**18.** 

= 4

The slope is $\frac{}{2}$ and the $y$-intercept is 4.

The slope is $\frac{}{2}$ and the $y$-intercept is 0.

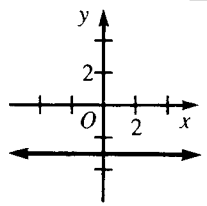
and the $y$-intercept is 4.

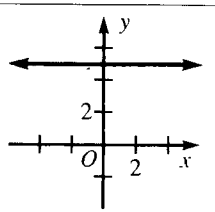
**Find the slope and the $y$-intercept.** **6.** $-\frac{1}{3}$; **−3**

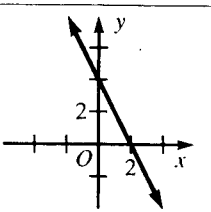
**1.** $y = x - 3$ **1; −3** **2.** $y = 2x + 3$ **2; 3** **3.** $y = -2$ **0; −2** **4.** $y = \frac{1}{3}x + 4$ $\frac{1}{3}$**; 4**

**5.** $y = -\frac{1}{2}x$ $-\frac{1}{2}$**; 0** **6.** $y = -\frac{1}{3}x - 3$ **7.** $y = -2x + 6$ **−2; 6** **8.** $y = -4x + 8$ **−4; 8**

**9.** $y = -x + 5$ **−1; 5** **10.** $y = x - 9$ **1; −9** **11.** $y = 3x - 2$ **3; −2** **12.** $y = 3$ **0; 3**

**19.** 

**20.** 

**21.** 

**Use only the slope and $y$-intercept to graph each equation. You may wish to verify your graphs on a computer or a graphing calculator.**

**Graphs given at the back of this Answer Key.**

**13.** $y = \frac{2}{3}x - 4$ **14.** $y = \frac{3}{4}x - 3$ **15.** $y = -\frac{1}{2}x$ **16.** $y = -\frac{3}{4}x - 1$

**17.** $y = -x + 3$ **18.** $y = 2x + 1$ **19.** $y = -3$ **20.** $y = 5$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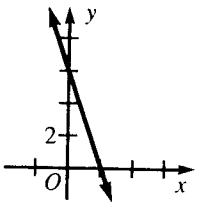
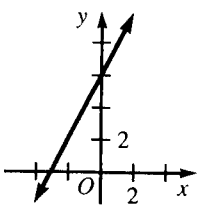
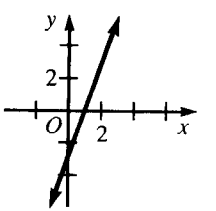
## 8–4 The Slope-Intercept Form of a Linear Equation *(continued)*

**22.** 

**23.** 

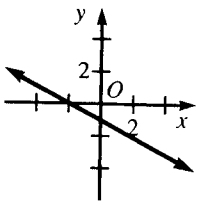
**24.** 

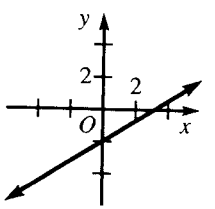
**Use only the slope and $y$-intercept to graph each equation. You may wish to verify your graphs on a computer or a graphing calculator.**

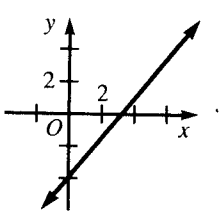
**Graphs given at the back of this Answer Key.**

**21.** $2x + y = 4$ **22.** $3x + y = 6$ **23.** $2x - y = -6$ **24.** $3x - y = 3$

**25.** $x + 2y = -2$ **26.** $2x - 3y = 6$ **27.** $4x - 3y = 12$ **28.** $x + 4y = 4$

**25.** 

**26.** 

**27.** 

**Determine whether the lines whose equations are given are parallel.**

**29.** $2x - y = 5$
$2x - y = 8$ **yes**

**30.** $x - 3y = 2$
$-2x + 6y = 12$ **yes**

**31.** $2x - y = 6$
$2y - x = 6$ **no**

**32.** $3x - y = 2$
$-6x + 2y = 8$ **yes**

**33.** $\frac{1}{2}x - \frac{1}{2}y = 4$
$2x - 2y = 3$ **yes**

**34.** $4x + \frac{1}{4}y = 2$
$4x + 4y = 2$ **no**

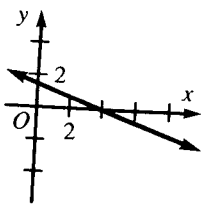
## Mixed Review Exercises

**Find the slope of the line through each pair of given points.**

**1.** $(-2, 1), (-1, 2)$ **1** **2.** $(1, 2), (3, -2)$ **−2** **3.** $(-3, 4), (-1, -2)$ **−3**

**Factor.** **$(2x + 3)(x + 2)$** **$2(x - 1)^2$** **$(2y + 5z)(2y - 5z)$**

**5.** $2x^2 + 7x + 6$ **6.** $2x^2 - 4x + 2$ **7.** $4y^2 - 25z^2$

**28.** 



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