

LESSON
5.3**Practice B**

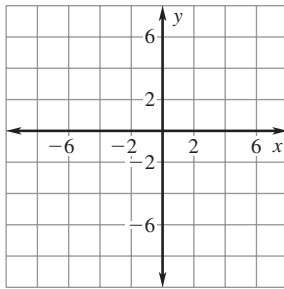
For use with pages 302–308

Write an equation in point-slope form of the line that passes through the given point and has the given slope m .

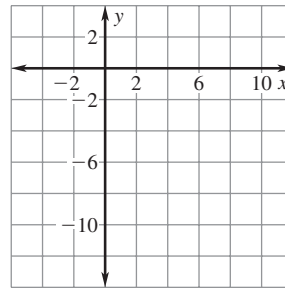
1. $(1, 9)$; $m = -3$
2. $(4, -10)$; $m = 2$
3. $(-5, 6)$; $m = 4$
4. $(-2, -8)$; $m = 3$
5. $(-4, -7)$; $m = -\frac{1}{2}$
6. $(-9, 2)$; $m = -5$
7. $(6, -4)$; $m = \frac{2}{3}$
8. $(0, 15)$; $m = \frac{4}{5}$
9. $(-8, 0)$; $m = 2$

Graph the equation.

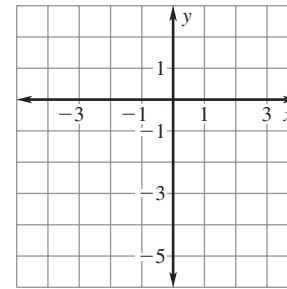
10. $y - 6 = 3(x - 4)$



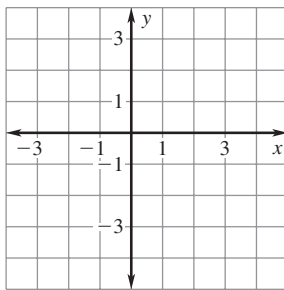
11. $y + 1 = 2(x - 5)$



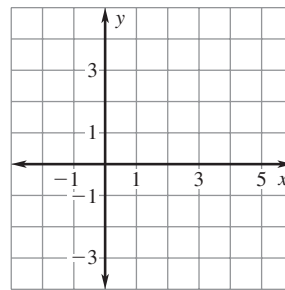
12. $y - 2 = -4(x + 3)$



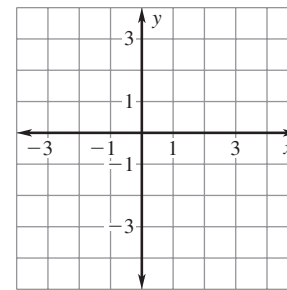
13. $y + 2 = -(x - 1)$



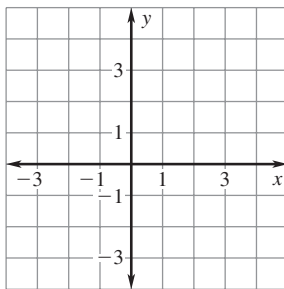
14. $y = \frac{1}{2}(x - 5)$



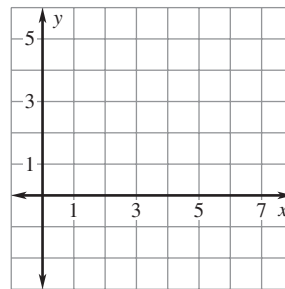
15. $y + 3 = 5x$



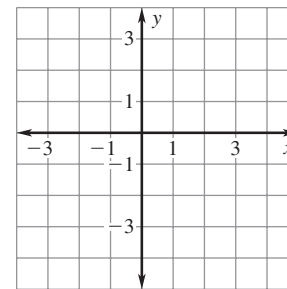
16. $y + 1 = \frac{2}{3}(x + 1)$



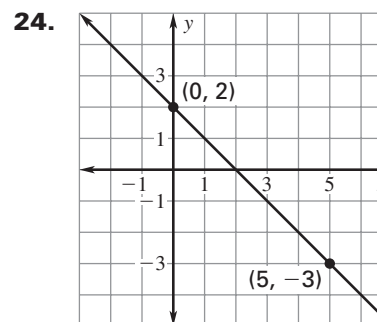
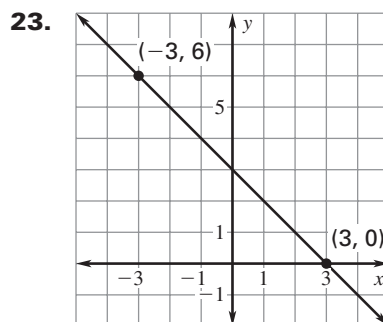
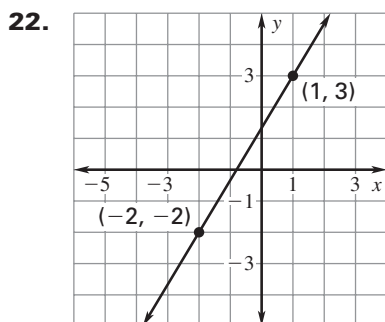
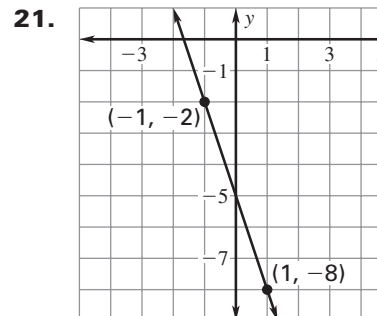
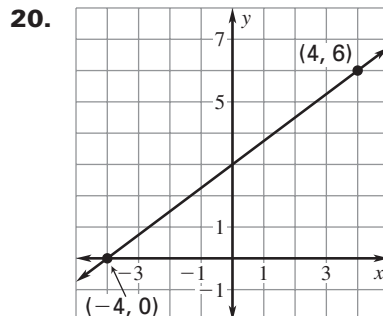
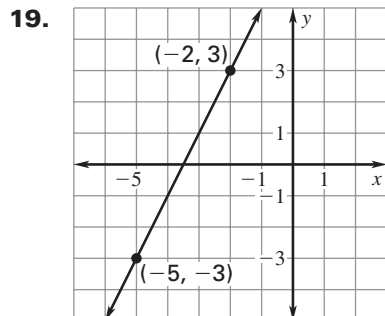
17. $y - 2 = -\frac{1}{2}(x - 3)$



18. $y + \frac{1}{2} = 2(x - 1)$



LESSON
5.3
Practice B *continued*
 For use with pages 302–308

Write an equation of the line shown.

Write an equation of the line that passes through the given points.

25. $(9, 4), (17, 6)$

26. $(-3, 10), (4, 2)$

27. $(3, -8), (7, -2)$

28. $(-4, -4), (2, 5)$

29. **Bryce Canyon National Park** From 1990 to 2000, the number of thousand visits by people to Bryce Canyon National Park increased by about 23.9 thousand visits per year. In 2000, there were about 1102.4 thousand visits to the park.

- Write an equation that gives the number of thousand visits as a function of the number of years since 1990.
- How many visits were made to the park in 1995?

30. **Airmail Letter Rates** The table shows the cost of mailing different weights of airmail letters to Canada in 2005.

Weight (oz)	2	3	4	8
Cost (dollars)	0.85	1.10	1.35	2.35

- Explain why the situation can be modeled using a linear equation.
 - Write an equation that gives the cost (in dollars) as a function of the weight of an airmail letter (in ounces).
 - How much does it cost to mail a 5-ounce airmail letter to Canada?
31. **New Mexico** The population density of New Mexico increased at a relatively constant rate from 1980 to 1999. In 1985, the population density was about 11.62 people per square mile. In 1999, the population density was about 14.28 people per square mile. Write an equation that gives the population density (in people per square mile) as a function of the number of years since 1980. What was the population density in 1990?