

LESSON
4.3**Practice C**

For use with the lesson "Write Linear Equations in Point-Slope Form"

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

1. $(9, -3); m = \frac{2}{3}$

2. $(-4, -6); m = \frac{5}{2}$

3. $(-14, 6); m = -\frac{3}{7}$

4. $(6, 5); m = -\frac{1}{4}$

5. $(20, -16); m = \frac{1}{3}$

6. $(-8, -17); m = -4$

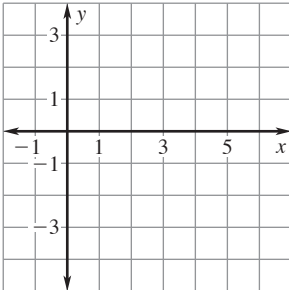
7. $(0, -13); m = 6$

8. $(-10, 0); m = -8$

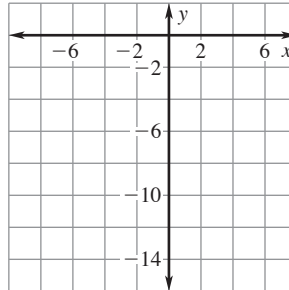
9. $(-10, -23); m = \frac{4}{3}$

Graph the equation.

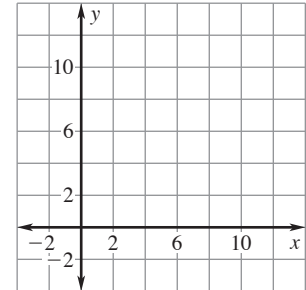
10. $y + 3 = 4(x - 5)$



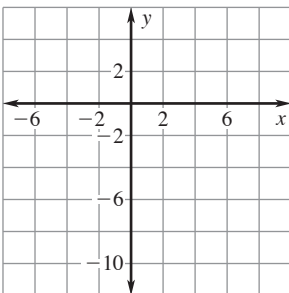
11. $y + 1 = -2(x + 6)$



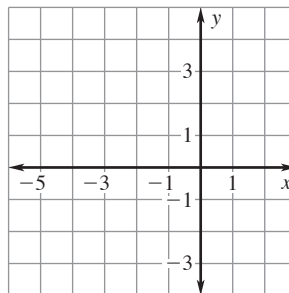
12. $y - 8 = -3(x - 8)$



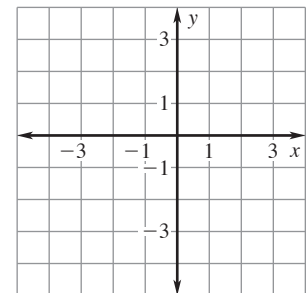
13. $y + 6 = \frac{1}{2}(x - 3)$



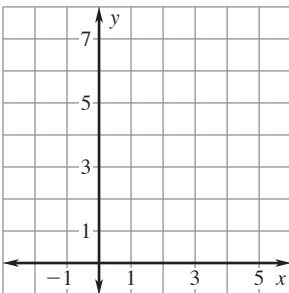
14. $y - 4 = -\frac{3}{2}(x + 5)$



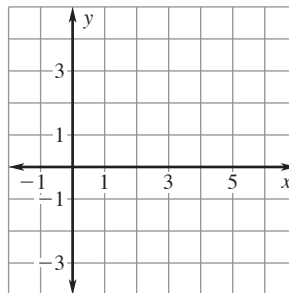
15. $y + 1 = -2(x + 1)$



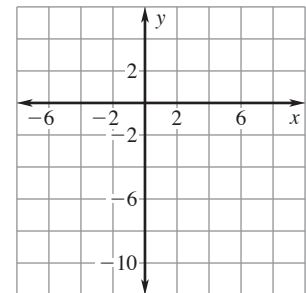
16. $y - 7 = -1(x + 2)$



17. $y = -3(x - 4)$



18. $y + 9 = 4x$



LESSON
4.3
Practice C *continued*
For use with the lesson "Write Linear Equations in Point-Slope Form"

Write an equation of the line that passes through the given points. Use the first point to write the equation.

19. $(14, 0), (-8, 8)$ 20. $(0, 20), (-2, 0)$
21. $(\frac{1}{2}, 4), (\frac{3}{2}, 5)$ 22. $(-4, -\frac{2}{3}), (6, \frac{2}{3})$
23. $(-2, 16), (-4, -10)$ 24. $(13, 8), (-4, 5)$
25. $(28, 15), (32, 20)$ 26. $(-35, 40), (-20, 12)$

Tell whether the data in the table can be modeled by a linear equation.

Explain. If possible, write an equation in point-slope form.

27.

x	3	6	9	12	15
y	-4	0	5	9	15

28.

x	1	3	4	6	8
y	-1.2	-0.8	-0.6	-0.2	0.2

Find the value of k so that the line that passes through the given points has slope m . Write an equation of the line in point-slope form. Use the first point to write the equation.

29. $(k, 2k), (k + 3, 4k), m = -2$ 30. $(-k + 2, 5), (1, k + 4), m = 3$
31. $(2k, k + 1), (k + 2, k), m = 1$ 32. $(k, k + 7), (k + 3, k + 2), m = -\frac{5}{3}$
33. $(-2k, 2k), (k, -2k), m = -\frac{4}{3}$ 34. $(2k, k + 1), (3k, k + 1), m = 0$
35. **Hawaii Volcanoes National Park** From 1990 to 2000, the number of visits by people to Hawaii Volcanoes National Park increased by about 43.1 thousand visits per year. In 2000, there were about 1529.6 thousand visits to the park.
- Write an equation that gives the number of visits (in thousands) as a function of the number of years since 1990. Use $(10, 1529.6)$ to write the equation.
 - How many visits were made to the park in 1995?
 - When were there 1400 thousand visits?

36. **Thawing Turkey** The table below shows the approximate amount of time (in hours) it should take to thaw a frozen turkey with the given weight (in pounds).

Turkey weight (pounds)	6	8	12	16
Time (hours)	28.8	38.4	57.6	76.8

- Explain why the situation can be modeled by a linear equation.
- Write an equation in point-slope form that gives the total time (in hours) as a function of the weight (in pounds). Use $(6, 28.8)$ to write the equation.
- Find the amount of time it takes to thaw a 9.5-pound turkey.
- When you thaw a turkey, you should thaw it in the refrigerator. What factors might affect the thawing times so that they are different from the times in the table?