5-5 Practice

Writing Equations in Point-Slope Form

Write the point-slope form of an equation for a line that passes through each point with the given slope.

1. $(2, 2)$, $m = -3$

2. $(1, -6)$, $m = -1$

3. $(-3, -4)$, $m = 0$

4. $(1, 3)$, $m = -\dfrac{3}{4}$

5. $(-8, 5)$, $m = -\dfrac{2}{5}$

6. $(3, -3)$, $m = \dfrac{1}{3}$

Write each equation in standard form.

7. $y - 11 = 3(x - 2)$

8. $y - 10 = -(x - 2)$

9. $y + 7 = 2(x + 5)$

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

11. $y + 2 = -\dfrac{3}{4}(x + 1)$

12. $y - 6 = \dfrac{4}{3}(x - 3)$

13. $y + 4 = 1.5(x + 2)$

14. $y - 3 = -2.4(x - 5)$

15. $y - 4 = 2.5(x + 3)$

Write each equation in slope-intercept form.

16. $y + 2 = 4(x + 2)$

17. $y + 1 = -7(x + 1)$

18. $y - 3 = -5(x + 12)$

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

20. $y - \dfrac{1}{4} = -3\left(x + \dfrac{1}{4}\right)$

21. $y - \dfrac{2}{3} = -2\left(x - \dfrac{1}{4}\right)$

CONSTRUCTION For Exercises 22–24, use the following information.

A construction company charges $15 per hour for debris removal, plus a one-time fee for the use of a trash dumpster. The total fee for 9 hours of service is $195.

22. Write the point-slope form of an equation to find the total fee y for any number of hours x.

23. Write the equation in slope-intercept form.

24. What is the fee for the use of a trash dumpster?

MOVING For Exercises 25–27, use the following information.

There is a set daily fee for renting a moving truck, plus a charge of $0.50 per mile driven. It costs $64 to rent the truck on a day when it is driven 48 miles.

25. Write the point-slope form of an equation to find the total charge y for any number of miles x for a one-day rental.

26. Write the equation in slope-intercept form.

27. What is the daily fee?