4-3 Practice

Point-Slope Form

Write an equation in point-slope form for the line that passes through the given point with the slope provided.

1. \((2, 2), m = -3\)  
2. \((1, -6), m = -1\)  
3. \((-3, -4), m = 0\)

4. \((1, 3), m = -\frac{3}{4}\)  
5. \((-8, 5), m = -\frac{2}{5}\)  
6. \((3, -3), m = \frac{1}{3}\)

Write each equation in standard form.

7. \(y - 11 = 3(x - 2)\)  
8. \(y - 10 = -(x - 2)\)  
9. \(y + 7 = 2(x + 5)\)

10. \(y - 5 = \frac{3}{2}(x + 4)\)  
11. \(y + 2 = -\frac{3}{4}(x + 1)\)  
12. \(y - 6 = \frac{4}{3}(x - 3)\)

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. \(y - 5 = \frac{3}{2}(x + 4)\)  
20. \(y - \frac{1}{4} = -3\left(x + \frac{1}{4}\right)\)  
21. \(y - \frac{2}{3} = -2\left(x - \frac{1}{4}\right)\)

22. CONSTRUCTION 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.
   a. Write the point-slope form of an equation to find the total fee \(y\) for any number of hours \(x\).
   b. Write the equation in slope-intercept form.
   c. What is the fee for the use of a trash dumpster?

23. MOVING 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.
   a. 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.
   b. Write the equation in slope-intercept form.
   c. What is the daily fee?