

**Practice****Writing Equations of Parallel and Perpendicular Lines**

**Determine whether the graphs of each pair of equations are parallel, perpendicular, coinciding, or none of these.**

1.  $x + 3y = 18$   
 $3x + 9y = 12$

2.  $2x - 4y = 8$   
 $x - 2y = 4$

3.  $-3x + 2y = 6$   
 $2x + 3y = 12$

4.  $x + y = 6$   
 $3x - y = 6$

5.  $4x + 8y = 2$   
 $2x + 4y = 8$

6.  $3x - y = 9$   
 $6x - 2y = 18$

**Write the standard form of the equation of the line that is parallel to the graph of the given equation and that passes through the point with the given coordinates.**

7.  $2x + y - 5 = 0; (0, 4)$       8.  $3x - y + 3 = 0; (-1, -2)$       9.  $3x - 2y + 8 = 0; (2, 5)$

**Write the standard form of the equation of the line that is perpendicular to the graph of the given equation and that passes through the point with the given coordinates.**

10.  $2x - y + 6 = 0; (0, -3)$       11.  $2x - 5y - 6 = 0; (-4, 2)$       12.  $3x + 4y - 13 = 0; (2, 7)$

13. **Consumerism** Marillia paid \$180 for 3 video games and 4 books. Three months later she purchased 8 books and 6 video games. Her brother guessed that she spent \$320. Assuming that the prices of video games and books did not change, is it possible that she spent \$320 for the second set of purchases? Explain.