Writing equations of Parallel and Perpendicular Lines Name:_____

1. Write the equation of the line that is parallel to the graph of $y = \frac{1}{2}x + 6$, and whose y-intercepts is (0, -2)

2. Write the equation of the line that is parallel to the graph of $y = -4x - 9$, and whose y-intercepts is (0, 3)

3. Write the equation of the line that is parallel to the graph of $3x - y = 5$, and whose y-intercept is (0, -7).

Write the equation in point-slope form of an equation of the line that passes through the given point and is **parallel** to the graph of each equation.

5. (3, 2), $y = x + 5$

6. (-2, 5), $y = -4x + 2$

7. (-3, 4), $3y = 2x - 3$

8. (-1, -4), $9x + 3y = 8$

9. Write the equation of the line that is perpendicular to the graph of $y = \frac{1}{2}x + 6$, and whose y-intercept is (0, -2).

10. Write the equation of the line that is perpendicular to the graph of $y = -4x - 9$, and whose y-intercept is (0, 3).

11. Write the equation of the line that is perpendicular to the graph of $3x - y = 5$, and whose y-intercept is -7.

12. Write the equation of the line that is perpendicular to the graph of $2x + y = 5$, and whose y-intercept is 4.

Write the equation in point-slope form of an equation of the line that passes through the given point and is **perpendicular** to the graph of each equation.

13. (3, 2), y = x + 5

14. (-8, 5), y = -4x + 2

15. (-6, 4), 3y = 2x – 3

16. (-1, -4), 9x + 3y = 8