Name: _____ Date: _____

Equation of a Line

1. Write an equation of a line that passes through the points (2, 3) and (-1, 6).

2. Which equation represents the perpendicular bisector of $\overline{AB}$ whose endpoints are $A(8,2)$ and $B(0,6)$?

3. Write an equation of a line that passes through the point (1, -4) and is parallel to the line with equation $2x + 2y = 4$.

4. Write an equation of a ne that is perpendicular to y = 2x + 5 and passes through the point (, 0).

5. Line ℓ passes through t e point $(5,3)$ and is parallel to line k whose equation is $5x + y = 6$. Write an ec ation for line ℓ

6. The equation of line l i y + 1 = 5x. Write the equation of the image of l after a dilation with a scale ctor of 2, centered at the origin.

7. What is an equation of the image of a line with equation $4x - 2y = 6$ that is rotated 90 degrees counterclockwise about the origin?

8. If the line with equation $3(x - 2) = 6y$ is translated along the vector $\langle 2, -1 \rangle$, write an equation to represent the new image.