MasterMath

Name _____

A.2.9 Linear Equations of Parallel and Perpendicular Lines Date _____

1. **Are these lines parallel or perpendicular: 6x - 2y = -6; x + 3y = 9**

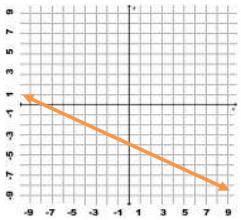
Original Equation	Slope-Intercept Form	Parallel or Perpendicular
6x - 2y = -6		
x + 3y = 9		

2. **Write an equation for a line that is parallel to y = 4 - x, and passes through (1, -3)**

3. **Write an equation for a line that is perpendicular to y = 2x + 3, and passes through (1, -3)**

4. **What is the y Intercept of a line that is perpendicular to y = ¼x + 3, and passes through (4, 4)?**

5. **What is the slope of every line that is perpendicular to this line?**



6. **Write an equation for a line that is parallel to 4x + 2y = 8, and passes through (3, 5)**

7. **Write an equation for a line that is perpendicular to 4x + 2y = 8, and passes through (3, 5)**

8. **Are these lines parallel or perpendicular?**

Original Equation	Slope-Intercept Form	Parallel or Perpendicular
2x - 4y = 12		
-4x - 2y = 6		

9. **Find the slope of a line that is perpendicular to a line that passes through the points (3, 7) and (-2, -3).**

10. **In the computer model for the architectural design of a garage, two support beams are represented by the lines y = 2x + 5 and y = 2x + 10. Do these two lines touch? If not, what is the distance between these two lines? (Assume measurements are in feet)**