

Name: \_\_\_\_\_

Hour: \_\_\_\_\_

**Topic 1: Writing Equations for Perpendicular Lines (Using Slope-Intercept Form)**

Write an equation in **SLOPE-INTERCEPT** form using the given information.

1. A line that passes through $(7, -2)$ and is perpendicular to the line described by $y = -7x + 5$	2. A line that passes through $(3, -4)$ and is perpendicular to the line described by $y = 3x + 6$
3. A line that passes through $(-5, 6)$ and is perpendicular to the line described by $y = 5x + 4$	4. A line that passes through $(-7, -5)$ and is perpendicular to the line described by $y = -\frac{7}{8}x - 5$

**Topic 2: Writing Equations for Perpendicular Lines (Using Point-Slope Form)**

Write an equation in **POINT-SLOPE** form using the given information.

5. A line that passes through $(4, 5)$ and is perpendicular to the line described by $y = \frac{1}{3}x + 4$	6. A line that passes through $(2, -7)$ and is perpendicular to the line described by $y = \frac{2}{5}x - 3$
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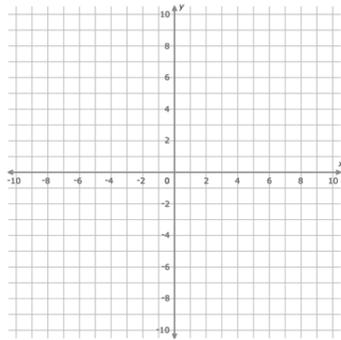
7. A line that passes through (9, 11) and is perpendicular to the line described by  $y = -x - 7$

8. A line that passes through (3, 1) and is perpendicular to the line described by  $y = \frac{1}{4}x - 8$

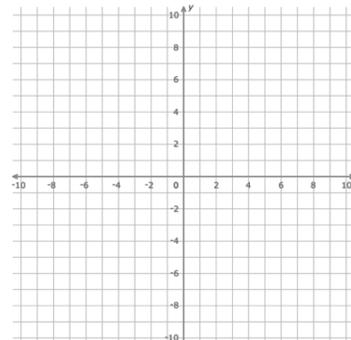
**Topic 3: Writing Equations for Perpendicular Lines with Zero and Undefined Slopes**

**Write an equation using the given information. Feel free to graph the original equation for a better visualization of your new equation.**

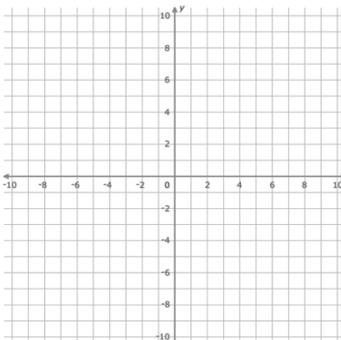
9. A line that passes through (3, -1) and is perpendicular to the line described by  $y = 2$



10. A line that passes through (4, -6) and is perpendicular to the line described by  $y = -5$



11. A line that passes through (-3, 5) and is perpendicular to the line described by  $x = 4$



12. A line that passes through (2, -1) and is perpendicular to the line described by  $x = -2$

