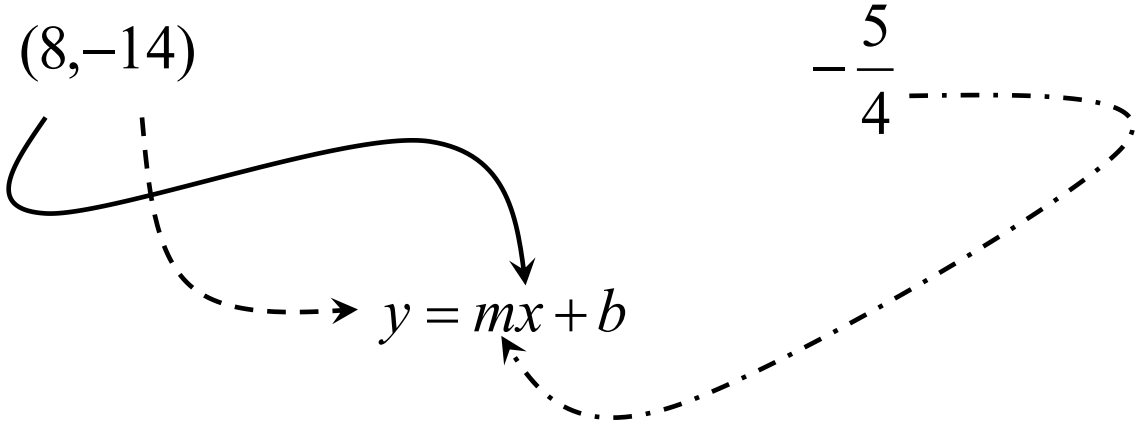
Math 9- MTH1W **Name:**_____

Review: Putting it all together ☺ **Date:** _____

Problem 1

⇨ Find the equation of a line that passes through the point (8, -14), and has a slope of $-\frac{5}{4}$.

⇨ The line passes through the point: ⇨ The slope of the line is:



Method 1:

Method 2:

$$-14 = \left(-\frac{5}{4}\right)(8) + b$$

Equation of Line is:

2.) Find the equation of a line that passes through (– 24, – 14), and has a slope of $\frac{9}{8}$.

Perpendicular and Parallel Slopes

3.) Which of the following equations is parallel or perpendicular to $y = -\frac{3}{2}x + 1$?

$y = -\frac{3}{2}x + 19$

$y = \frac{3}{2}x - 100$

$y = -\frac{3}{2}x$

$y = \frac{2}{3}x - 7$

$y = \frac{2}{3}x$

$3x + 2y - 6 = 0$

$2x - 3y - 12 = 0$

4.) Find the equation of a line that is perpendicular to $y = \frac{8}{7}x + 1$ and has a y-intercept at – 15.

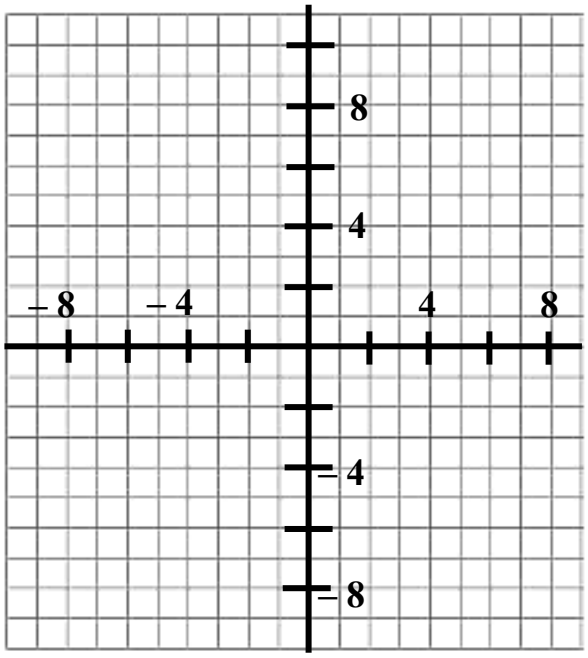
5.) Find the equation of a line that is parallel to $y = -\frac{4}{3}x - 5$ and passes through (– 9, 6).

Calculating Slope

6.) Find the equation of a line that passes through (0, – 4) and (– 2, 2).

7.) Find the equation of a line that passes through (– 6, 2) and (10, 8)

8.) Find the equation of a line that passes through (– 5, – 3) and (6, – 3). Graph this line on the Cartesian Plane below:



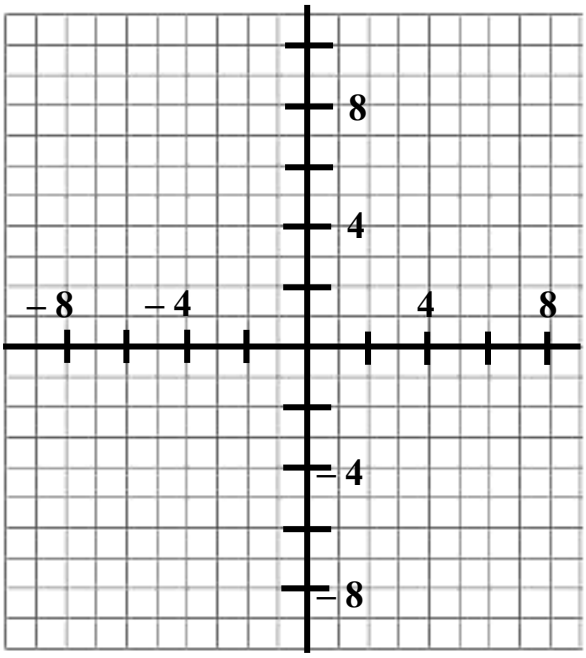
More Practice with Horizontal Lines

a.) Graph $y = 4$

b.) Graph $y = \frac{-3}{2}$

c.) Write the equation of a horizontal line that passes through (–1, 9)

9.) Write the equation of a line that passes through (3, 2) and (3, – 4). Graph this line on the Cartesian Plane below:

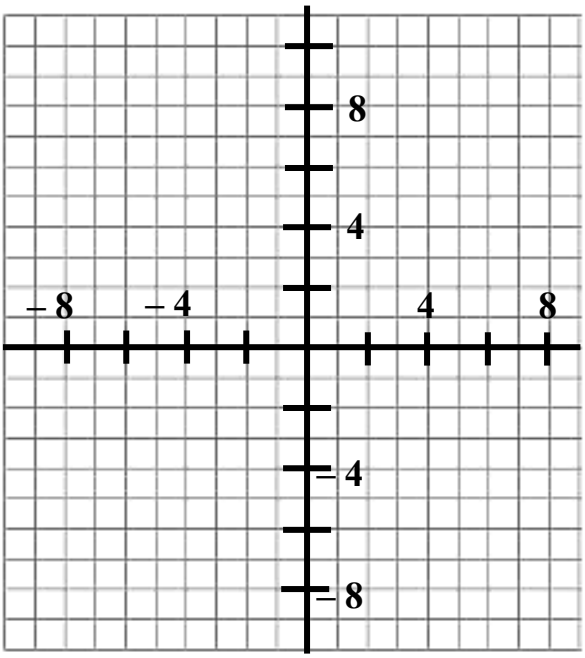


More Practice with Vertical Lines

a.) Graph $x = -6$

b.) Graph $x = \frac{7}{2}$

c.) Write the equation for a vertical line that passes through (8, -19)



Big Finish!!!

☺ Write an equation of a line that fulfills the following conditions:

- Is **PERPENDICULAR** to a line that passes through (9,– 9) and (0,– 5).
- Passes through (0, 7).