

Name

Key  
HW

## Algebra Skills Review: Slope Quiz #1

1. Find the slope of the line containing the points  $A(-5, 3)$  and  $B(-2, 5)$ .

$$\frac{5-3}{(-2)-(-5)} = \frac{2}{3}$$

2. Find the slope of the line containing the points  $A(-1, 5)$  and  $B(-6, 6)$ .

$$\frac{6-5}{(-6)-(-1)} = \frac{1}{-5} \text{ or } -\frac{1}{5}$$

3. Write an equation of the line with slope  $-\frac{3}{2}$  and y-intercept  $-5$ .

$$y = -\frac{3}{2}x - 5$$

4. Find an equation, in slope-intercept form, of a line having slope  $-6$  and y-intercept  $-2$ .

$$y = -6x - 2$$

5. Write the equation  $5x - 2y = 3$  in slope-intercept form.

$$\begin{array}{r} 5x - 2y = 3 \\ -5x \quad -5x \end{array}$$

$$\begin{array}{r} -2y = -5x + 3 \\ -2 \quad -2 \end{array}$$

$$y = \frac{5}{2}x - \frac{3}{2}$$

6. Write the equation  $y - 2 = -\frac{1}{4}(x + 8)$  in slope-intercept form.

$$y - 2 = -\frac{1}{4}x - 2$$

$$y = -\frac{1}{4}x$$

7. Write an equation of a line with slope  $-6$  passing through the point  $(4, -3)$ .

$$-3 = -6(4) + b$$

$$-3 = -24 + b$$

$$21 = b$$

$$y = -6x + 21$$

8. Find an equation for the line with undefined slope and passing through the point  $(-2, -6)$ .

$$x = -2$$

9. Find the y-intercept of the line containing the point  $(1, -2)$  and having 0 slope.

$$-2 = 0(1) + b$$

$$-2 = 0 + b$$

$$-2 = b$$

10. Find the y-intercept of a line that passes through  $(-2, -7)$  and has a slope of  $-2$ .

$$-7 = -2(-2) + b$$

$$-7 = 4 + b$$

$$-11 = b$$

11. Write the slope-intercept form of the equation of the line that passes through the points  $(4, 3)$  and  $(6, -7)$ .

$$\text{slope: } \frac{(-7) - 3}{6 - 4} = \frac{-10}{2} = -5$$

$$y\text{-int: } 3 = -5(4) + b$$

$$3 = -20 + b$$

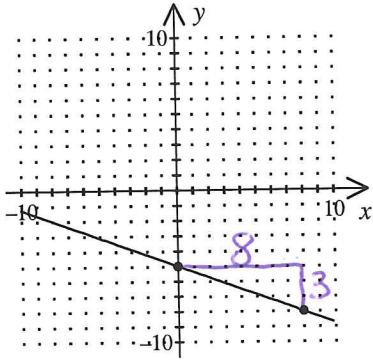
$$23 = b$$

$$y = -5x + 23$$

12. Write the equation of the horizontal line that passes through the point (3, -5).

$$y = -5$$

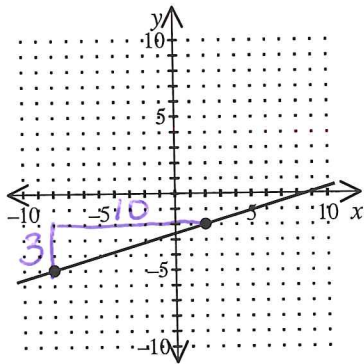
13. Write an equation of the line shown in slope-intercept form.



$$y\text{-int} = -5$$
$$\text{slope} = \frac{\text{rise}}{\text{run}} = -\frac{3}{8}$$

$$y = -\frac{3}{8}x - 5$$

14. Determine the slope of the line.



$$\text{slope} = \frac{\text{rise}}{\text{run}} = \frac{3}{10}$$