

Class Name : *MT* Math 095 MW Fall 18 - Math 095
MW Fall18 B02

Instructor Name : Bottom

Student Name : _____

Instructor Note : _____

1. For each ordered pair, determine whether it is a solution to $y = -5$.

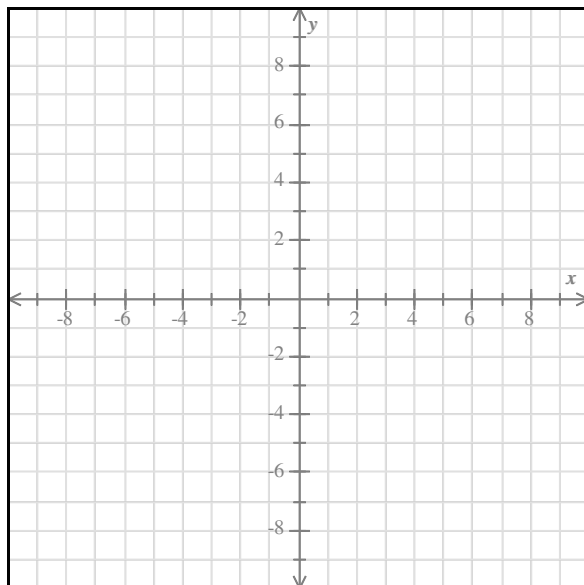
(x, y)	Is it a solution?	
	Yes	No
$(-5, 1)$	☐	☐
$(7, 6)$	☐	☐
$(8, -3)$	☐	☐
$(0, -5)$	☐	☐

2. Find an ordered pair (x, y) that is a solution to the equation.

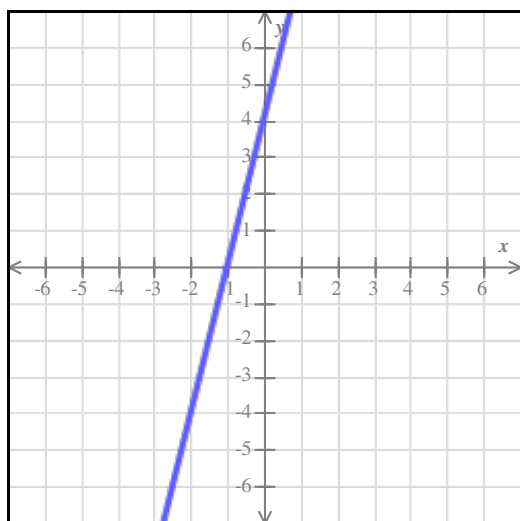
$$3x - y = 3$$

3. Graph the line.

$$y = -x + 8$$



4. Find the x -intercept and the y -intercept of the line below.



5. Find the y -intercept and x -intercept of the line.

$$2x - 7y = 8$$

y -intercept: _____

x -intercept: _____

6. Find the slope of the line passing through the points $(7, -2)$ and $(4, -8)$.

7. Fill in the blanks below.

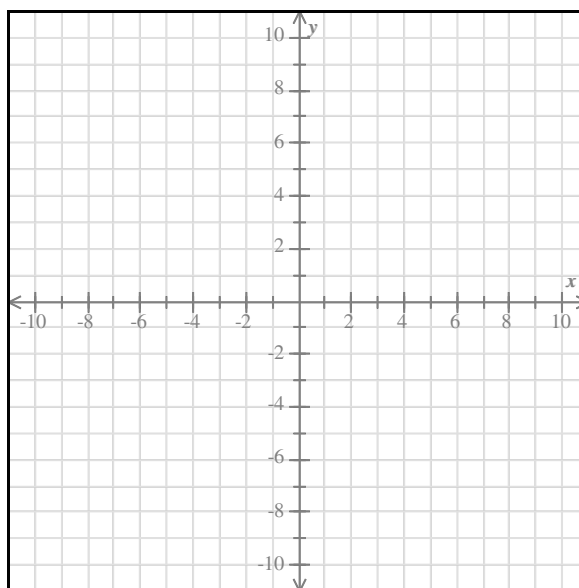
Find the slope of the line passing through the points $(-8, 8)$ and $(-3, 8)$.

slope:

Find the slope of the line passing through the points $(-7, 8)$ and $(-7, -6)$.

slope:

8. Graph the line with slope -2 passing through the point $(-4, -1)$.



9. Find the y -intercept and the slope of the line.

$$y = -\frac{1}{5}x - 9$$

10. Write an equation in slope-intercept form for the line with y -intercept 3 and slope $\frac{1}{5}$.

11. Consider the line $x - 6y = -1$.

What is the slope of a line parallel to this line?

What is the slope of a line perpendicular to this line?

12. The equations of three lines are given below.

Line 1: $4x - 10y = -2$

Line 2: $-5y = 2x + 5$

Line 3: $y = -\frac{5}{2}x + 1$

For each pair of lines, determine whether they are parallel, perpendicular, or neither.

- | | | | |
|--------------------|--------------------------------|-------------------------------------|-------------------------------|
| Line 1 and Line 2: | ☐ Parallel | ☐ Perpendicular | ☐ Neither |
| Line 1 and Line 3: | ☐ Parallel | ☐ Perpendicular | ☐ Neither |
| Line 2 and Line 3: | ☐ Parallel | ☐ Perpendicular | ☐ Neither |

13. A line passes through the point $(4, -3)$ and has a slope of $\frac{3}{2}$.

Write an equation in slope-intercept form for this line.

14. Find an equation for the line that passes through the points $(4, -6)$ and $(-6, 6)$.

15. For each ordered pair, determine whether it is a solution to the system of equations.

$$\begin{cases} 3x - 2y = -8 \\ 6x + 7y = -5 \end{cases}$$

(x, y)	Is it a solution?	
	Yes	No
$(-4, -2)$	☐	☐
$(5, -5)$	☐	☐
$(-2, 1)$	☐	☐
$(7, 3)$	☐	☐

16. Use substitution to solve the system.

$$5x - 2y = 26$$

$$3y + 13 = x$$

$$x = \boxed{}$$

$$y = \boxed{}$$

17. Solve the following system of equations.

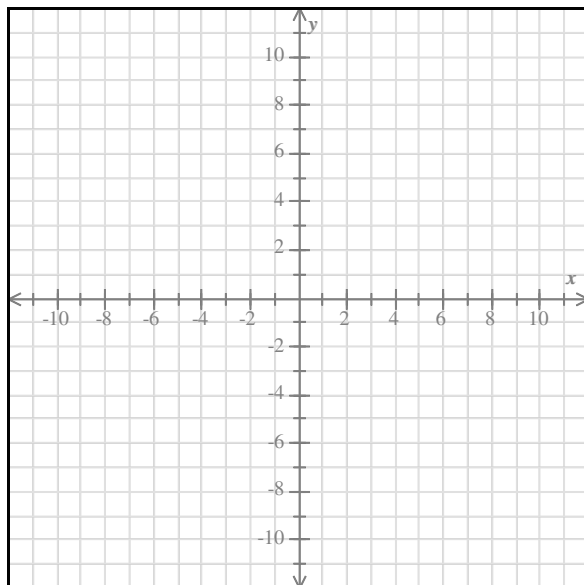
$$5x + 3y = -3$$

$$2x - 3y = 24$$

18. One month Keith rented 6 movies and 5 video games for a total of \$56. The next month he rented 2 movies and 3 video games for a total of \$26. Find the rental cost for each movie and each video game.

19. Graph the inequality in the coordinate plane.

$$y > 4$$



20. Graph the inequality.

$$-2x - 3y < -12$$

