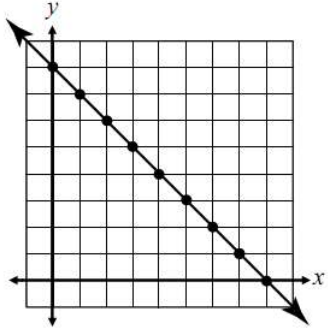


<b>Name:</b>	<b>Date:</b>
<b>Topic:</b>	<b>Class:</b>

Main Ideas/Questions	Notes/Examples
<h2 style="text-align: center;">X- and Y-Intercepts</h2>	<ul style="list-style-type: none"> <li>➤ The point at which the line intersects the <math>x</math>-axis is called the <b><math>x</math>-intercept</b>.</li> <li>➤ The point at which the line intersects the <math>y</math>-axis is called the <b><math>y</math>-intercept</b>.</li> <li>➤ <b>Example:</b> Identify the <math>x</math>- and <math>y</math>-intercept of the graph shown to the right.</li> </ul> <div style="text-align: right;">  </div>
<h2 style="text-align: center;">Finding Intercepts Algebraically</h2>	<ul style="list-style-type: none"> <li>➤ To find the <math>x</math>-intercept of an equation: _____</li> <li>➤ To find the <math>y</math>-intercept of an equation: _____</li> <li>➤ <b>Example:</b> Find the <math>x</math>- and <math>y</math>-intercept of the equation <math>y = 3x + 6</math>.</li> </ul>
<h2 style="text-align: center;">Examples</h2>	<p><b>Directions:</b> Find the <math>x</math>- and <math>y</math>-intercept of each equation.</p> <p><b>1.</b> <math>y = -x + 5</math></p> <p style="text-align: right;"><math>x</math>-int: _____</p> <p style="text-align: right;"><math>y</math>-int: _____</p> <hr/> <p><b>2.</b> <math>y = \frac{1}{2}x - 8</math></p> <p style="text-align: right;"><math>x</math>-int: _____</p> <p style="text-align: right;"><math>y</math>-int: _____</p> <hr/> <p><b>3.</b> <math>y = -\frac{4}{3}x + 2</math></p> <p style="text-align: right;"><math>x</math>-int: _____</p> <p style="text-align: right;"><math>y</math>-int: _____</p>

4.  $x - y = 2$

x-int: \_\_\_\_\_

y-int: \_\_\_\_\_

5.  $3x - 2y = 12$

x-int: \_\_\_\_\_

y-int: \_\_\_\_\_

6.  $8x + 10y = -10$

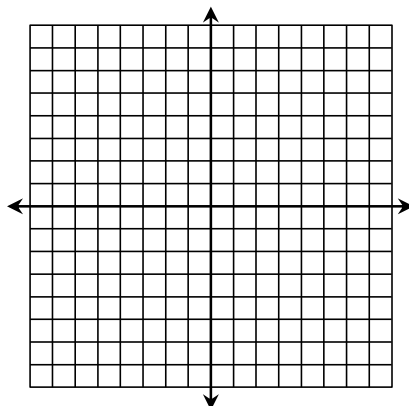
x-int: \_\_\_\_\_

y-int: \_\_\_\_\_

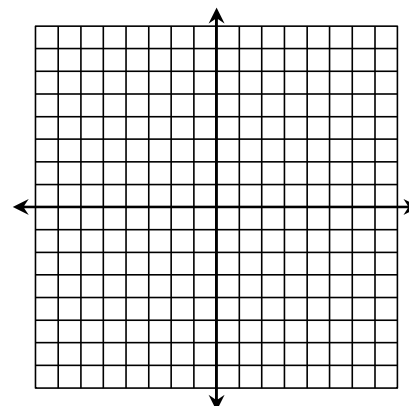
## Graphing by Intercepts

**Directions:** Find the x- and y-intercept of each equation. Graph the equation using its intercepts.

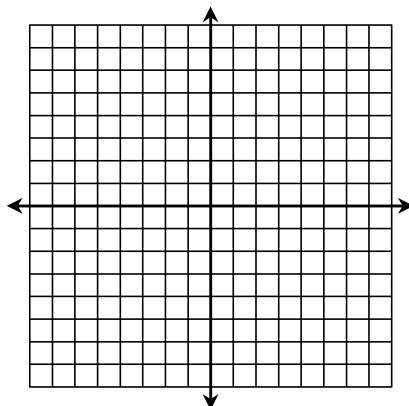
7.  $x + y = 3$



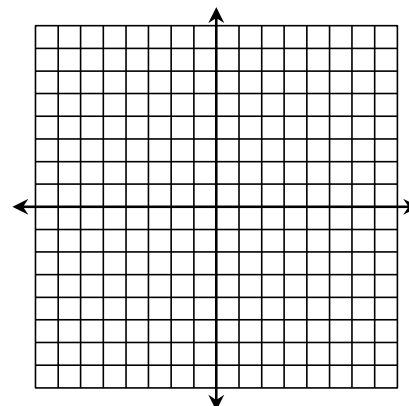
8.  $-4x + 5y = 20$



9.  $9x - 15y = 45$



10.  $2x - y = 7$



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

Unit 4: Linear Equations



Date: \_\_\_\_\_ Bell: \_\_\_\_\_

Homework 4:  $x$ - and  $y$ -Intercepts

**\*\* This is a 2-page document! \*\***

**Directions:** Find the  $x$ -intercept and  $y$ -intercept of each equation algebraically.

1.  $y = -2x + 6$

$x$ -int: \_\_\_\_\_

$y$ -int: \_\_\_\_\_

2.  $y = x - 7$

$x$ -int: \_\_\_\_\_

$y$ -int: \_\_\_\_\_

3.  $y = \frac{3}{2}x - 9$

$x$ -int: \_\_\_\_\_

$y$ -int: \_\_\_\_\_

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

$x$ -int: \_\_\_\_\_

$y$ -int: \_\_\_\_\_

5.  $-x + y = -5$

$x$ -int: \_\_\_\_\_

$y$ -int: \_\_\_\_\_

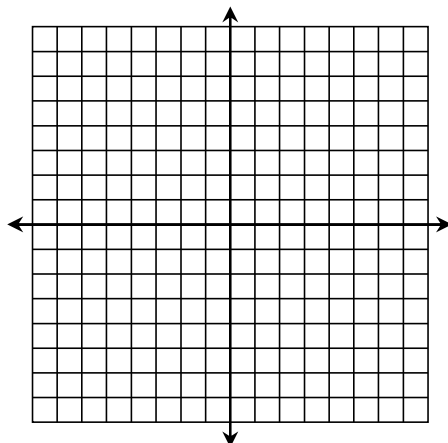
6.  $x + 2y = -14$

$x$ -int: \_\_\_\_\_

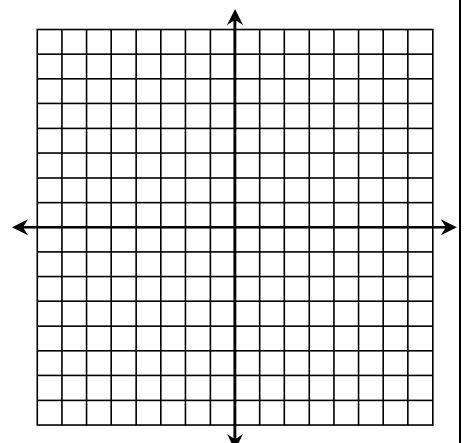
$y$ -int: \_\_\_\_\_

**Directions:** Graph each equation by finding its  $x$ -intercept and  $y$ -intercept.

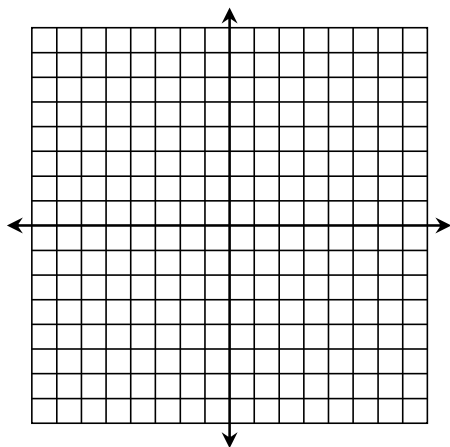
7.  $3x - y = -3$



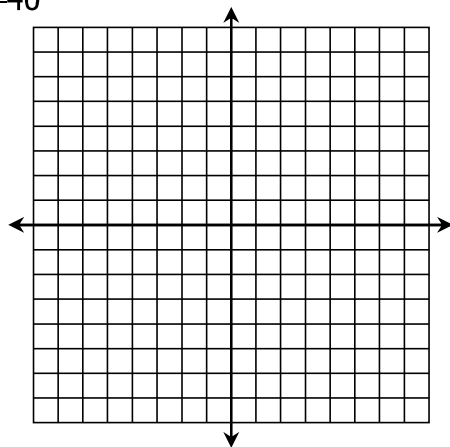
8.  $5x + 3y = 15$



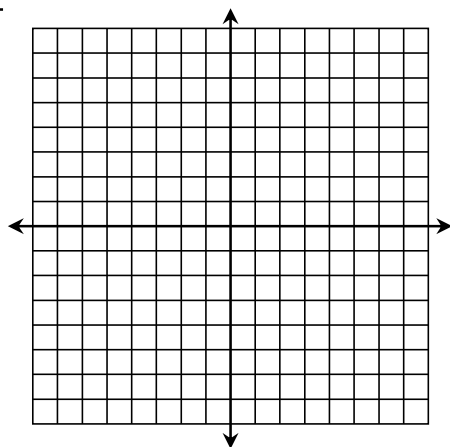
9.  $x - 4y = 8$



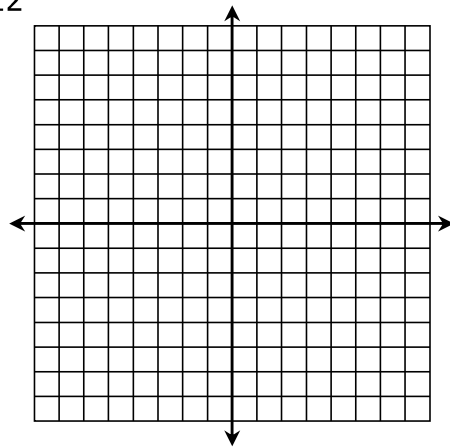
10.  $10x + 8y = -40$



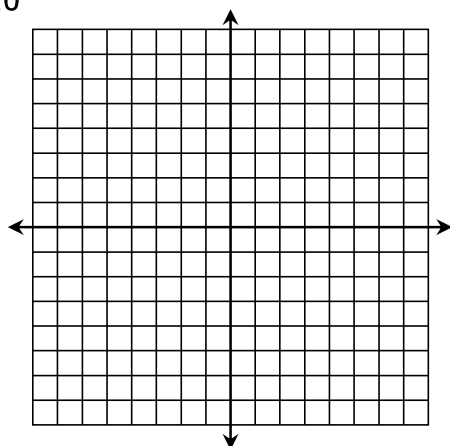
11.  $4x - 6y = 12$



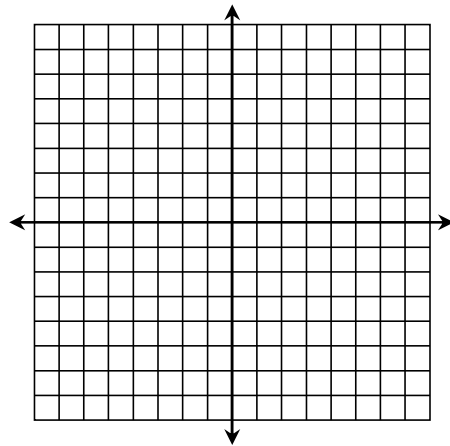
12.  $-3x + 6y = 12$



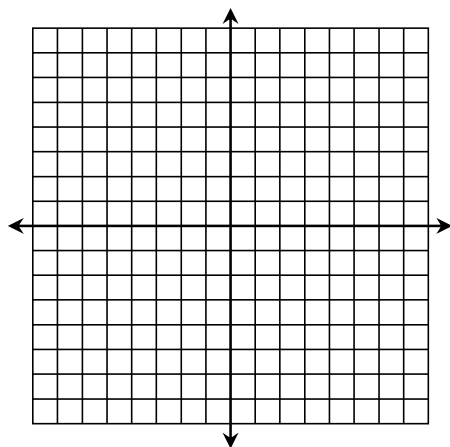
13.  $-2x - 5y = 10$



14.  $x - y = 1$



15.  $2x + 3y = 9$



16.  $5x - y = -2$

