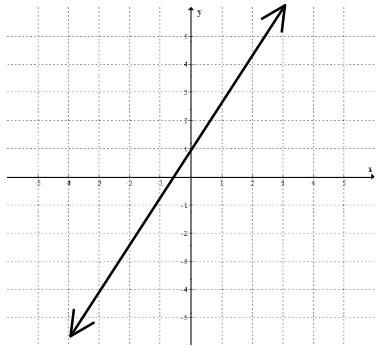
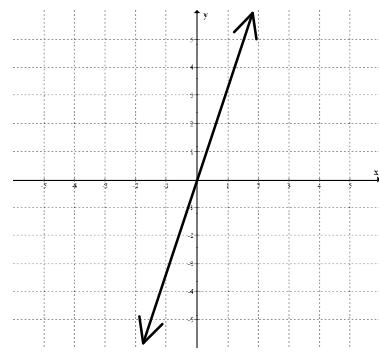
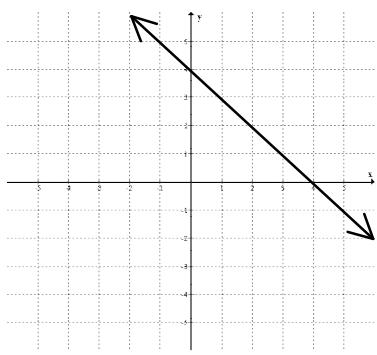
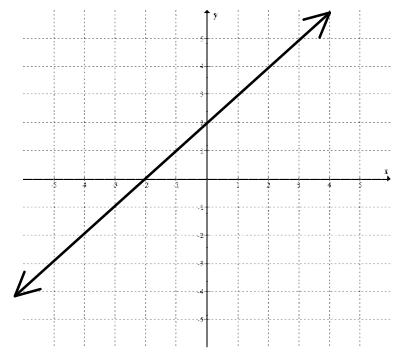
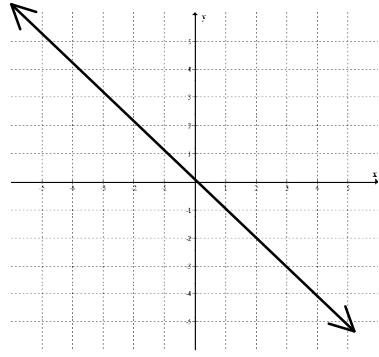
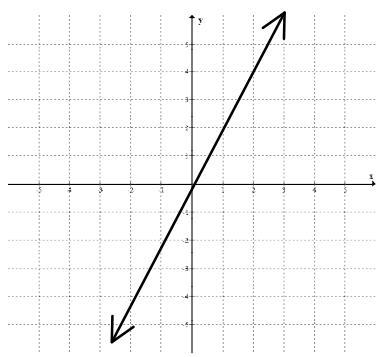
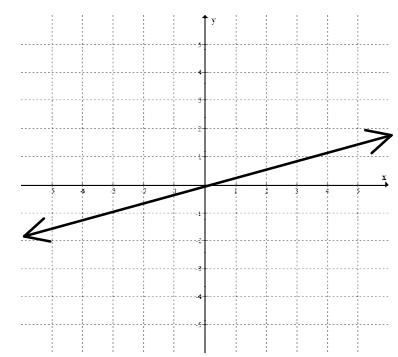
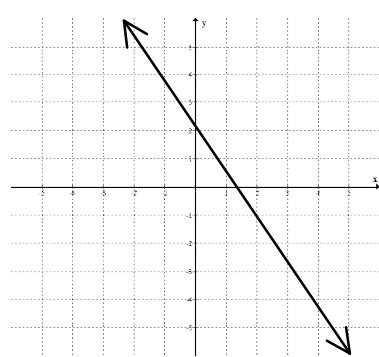
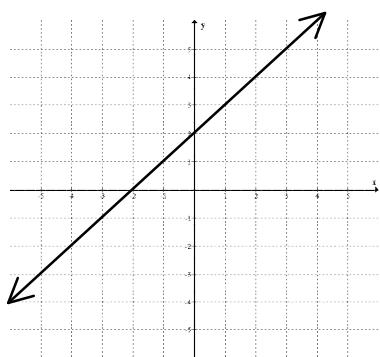
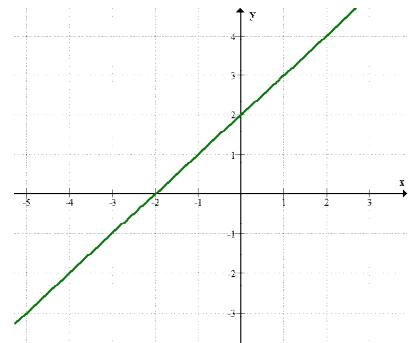
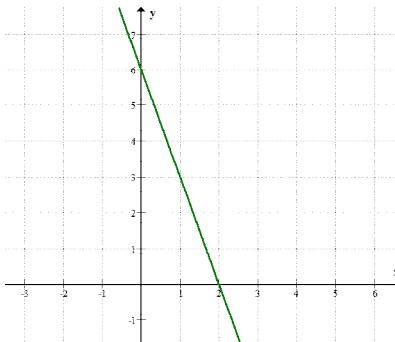
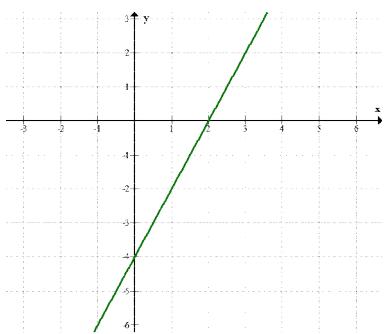


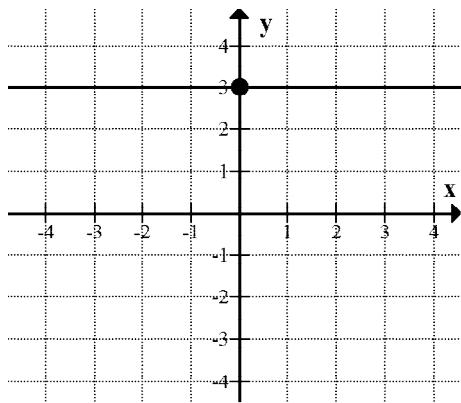
# M10 - 7.1 - Find $x$ & $y$ -Intercept WS

Find the  $x$  &  $y$ -intercept of the following lines.

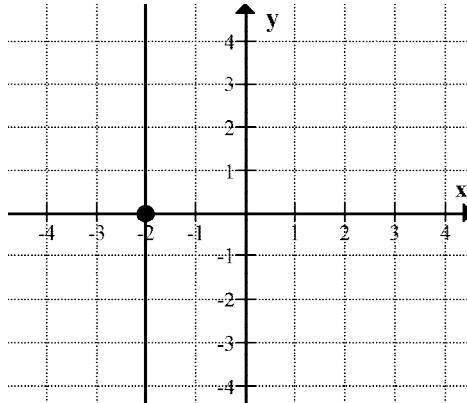


# M10 - 7.1 - x & y-Intercepts HW

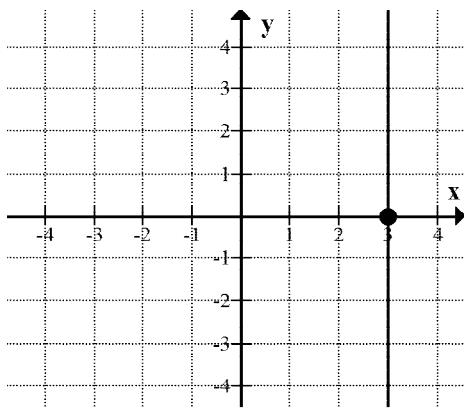
Find the x & y intercepts, slope, and equation of the following graphs.



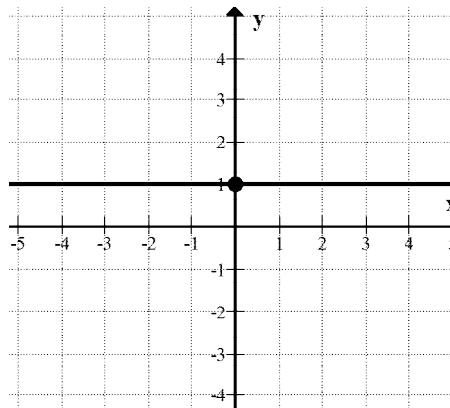
$x\text{-int} =$   
 $m =$   
Equation:



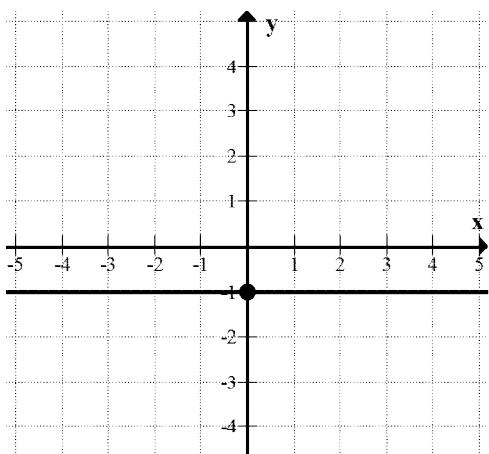
$x\text{-int} =$   
 $y\text{-int} =$   
 $m =$   
Equation:



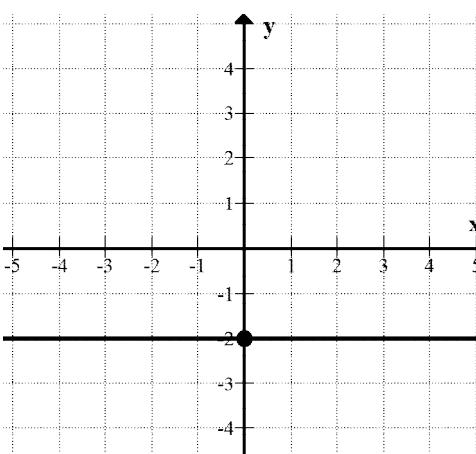
$x\text{-int} =$   
 $m =$   
Equation:



$x\text{-int} =$   
 $y\text{-int} =$   
 $m =$   
Equation:



$x\text{-int} =$   
 $y\text{-int} =$   
 $m =$   
Equation:



$x\text{-int} =$   
 $y\text{-int} =$   
 $m =$   
Equation:

# M10 - 7. 1- Finding Intercepts of Lines in General Form WS

**Find the  $x$  and  $y$  intercepts of the following lines**

$$2y + 3x - 6 = 0$$

$$y + 2x + 6 = 0$$

$$y - x = 2$$

$$2x + y = -4$$

$$x - y = 0$$

$$x - 4y = 2$$

$$5x - 3y + 2 = 0$$

$$\frac{1}{3}x - \frac{3}{2}y = 3$$

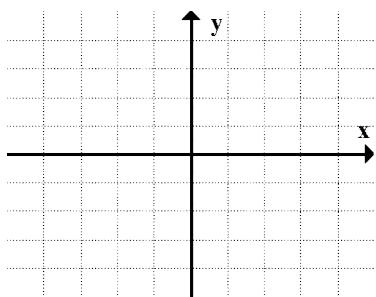
$$y = 0$$

$$x - 2 = 0$$

# M10 - 7.1 - Graphing Standard Form WS

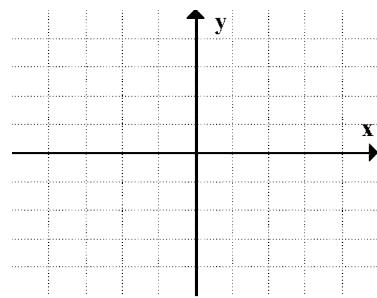
Graph the line using the x and y intercept method

$$6x + 3y = 12$$



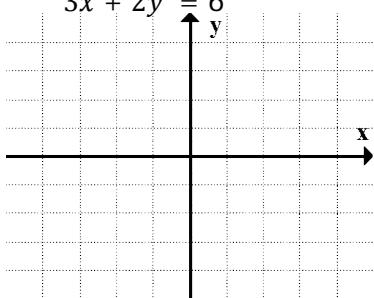
| x | y |
|---|---|
| 0 |   |
|   | 0 |

$$5x + 4y = 20$$



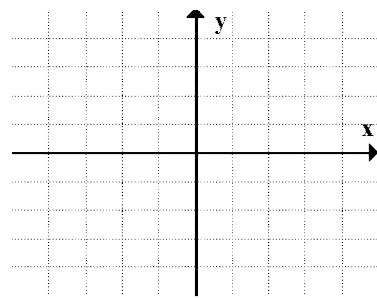
| x | y |
|---|---|
| 0 |   |
|   | 0 |

$$3x + 2y = 6$$



| x | y |
|---|---|
| 0 |   |
|   | 0 |

$$4x + 2y = 8$$



| x | y |
|---|---|
| 0 |   |
|   | 0 |

## M10 - 7.2 - $y - \text{int/Slope}$ : Slope Intercept Form WS

**Write in  $y = mx + b$ .**

$$\text{Slope} = -2, y - \text{intercept} = 3$$

$$\text{Slope} = 4, y - \text{intercept} = -1$$

$$\text{Slope} = \frac{3}{2}, y - \text{intercept} = 2$$

$$\text{Slope} = -0.5, y - \text{intercept} = -4$$

$$\text{Slope} = 1, y - \text{intercept} = 0$$

$$\text{Slope} = -1, y - \text{intercept} = \frac{1}{2}$$

$$\text{Slope} = 0, y - \text{intercept} = 0$$

$$\text{Slope} = \text{undefined}, x - \text{intercept} = 3$$

$$\text{Slope} = -\frac{1}{2}, y - \text{intercept} = 5$$

$$\text{Slope} = \frac{3}{2}, y - \text{intercept} = -3$$

$$\text{Slope} = 3, y - \text{intercept} = -2$$

$$\text{Slope} = -0.2, y - \text{intercept} = -2$$

$$\text{Slope} = 2, y - \text{intercept} = 0$$

$$\text{Slope} = -2, y - \text{intercept} = \frac{3}{2}$$

$$\text{Slope} = 1, y - \text{intercept} = 0$$

$$\text{Slope} = \text{undefined}, x - \text{intercept} = 0$$

## M10 - 7.2 - Find Slope and $y$ -Intercept WS

**Identify slope and  $y$ -intercept.**

$$y = 2x + 1$$

$$y = -3x - 4$$

$$y = x$$

$$y = 4$$

$$y = -\frac{1}{3}x + 4$$

$$x = 3$$

$$y = 2x + 3$$

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

$$y = 5$$

$$x = 0$$

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

$$y = 0$$

$$y = -2x + 7$$

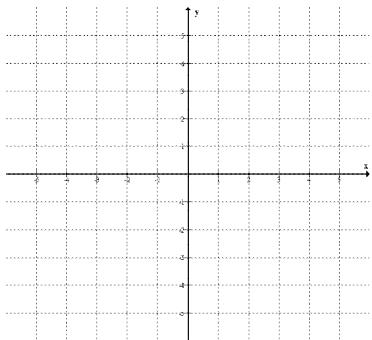
$$y = 3x$$

$$y = 0.2x + 1$$

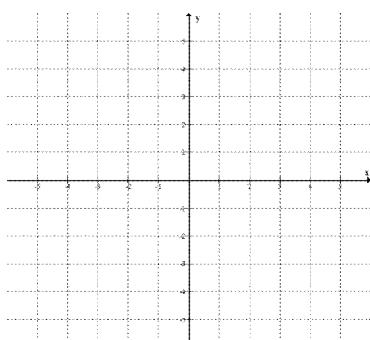
# M10 - 7.2 - Graph Slope Intercept HMK

Graph the Following

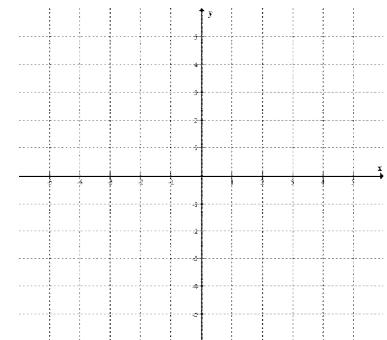
$$y = x + 1$$



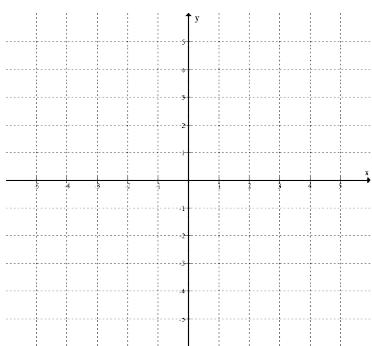
$$y = -x - 2$$



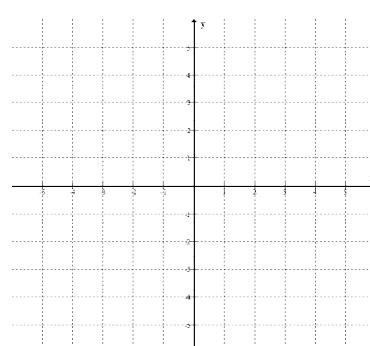
$$y = 2x + 1$$



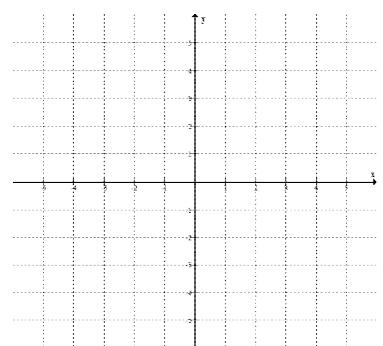
$$y = 3x$$



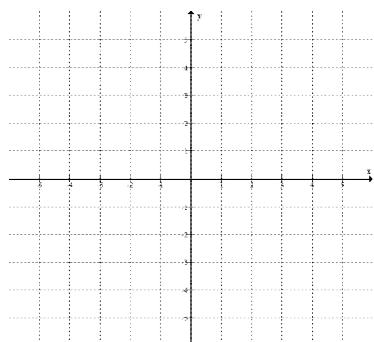
$$y = \frac{1}{2}x - 3$$



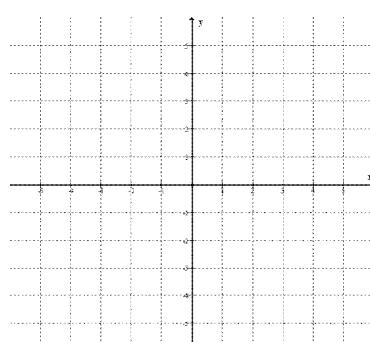
$$y = -2x + 4$$



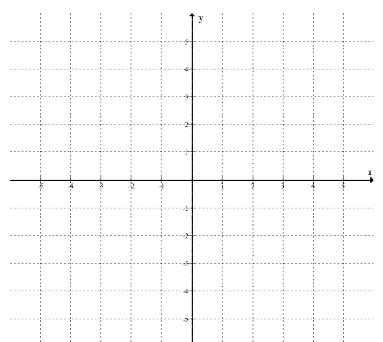
$$y = -\frac{3}{2}x + 2$$



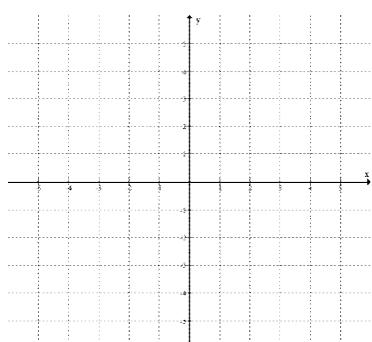
$$y = 3x + 5$$



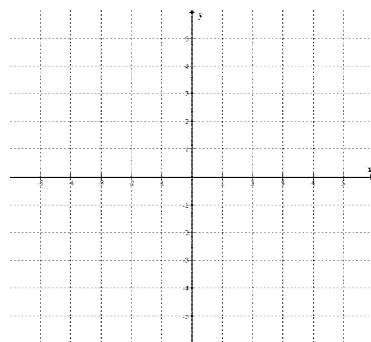
$$y = 3x - 4$$



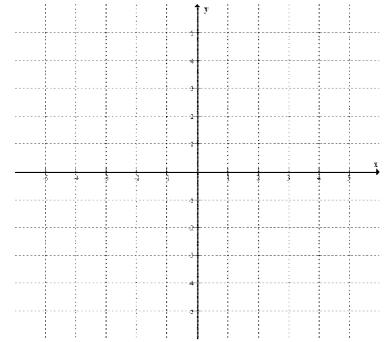
$$y = 5$$



$$x = 2$$

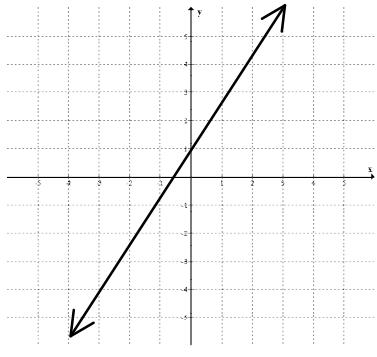
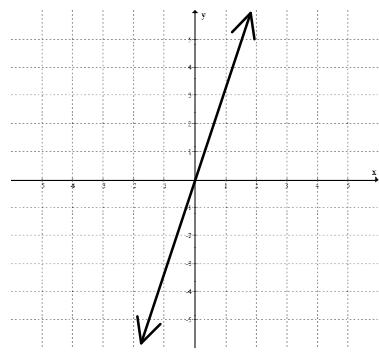
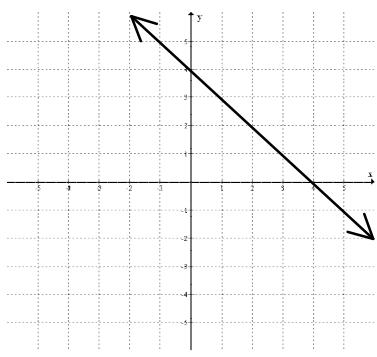
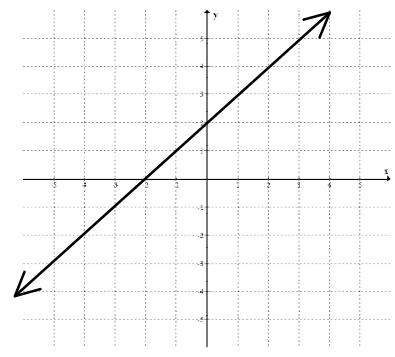
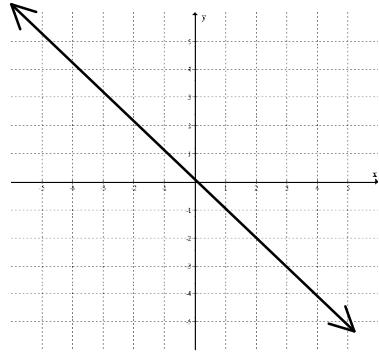
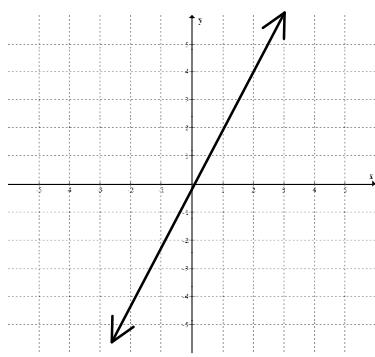
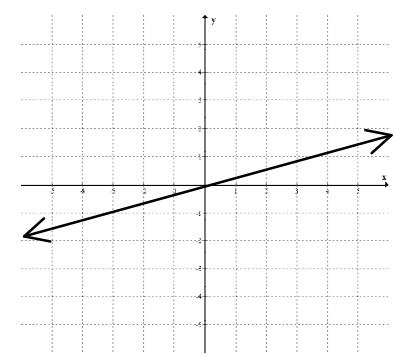
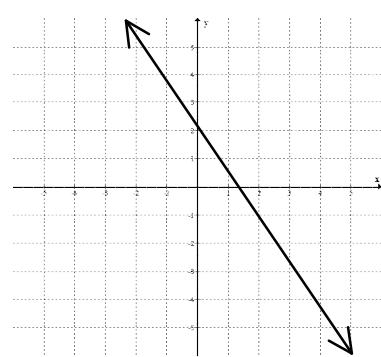
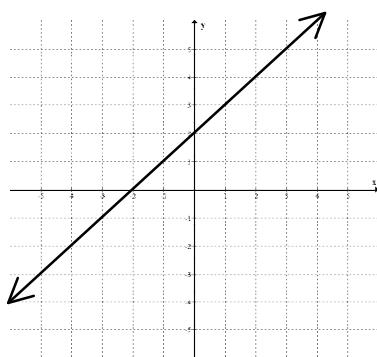
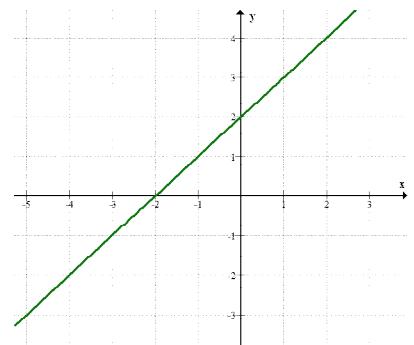
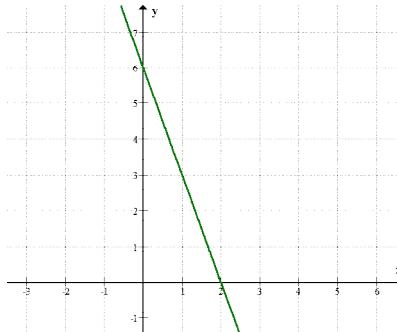
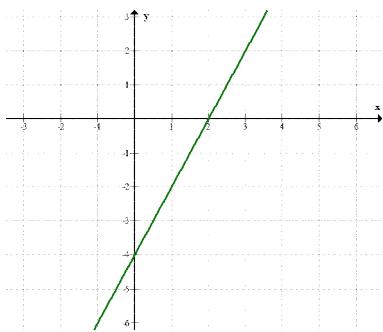


$$y = -\frac{1}{5}x - 2$$



# M10 - 7.2 - Find Equation Slope Intercept Form WS

Find the equations in Slope Intercept Form of the following lines.



# M10 - 7.2 - Point/Slope: Slope Intercept Form WS

Write in  $y = mx + b$ .

$$(1,2), \quad m = 2$$

$$(-2,3), \quad m = 2$$

$$(-2,-3), \quad m = -2$$

$$(-3,-2), \quad m = \frac{1}{2}$$

$$(2,-3), \quad m = 4$$

$$(1,5), \quad m = -\frac{2}{3}$$

## M10 - 7.2 - #2 Point/Slope: Slope Intercept Form WS

Write in  $y = mx + b$ .

$$(1,2), \quad m = -6$$

$$(2,-3), \quad m = -1$$

$$(-1,-3), \quad m = \frac{1}{2}$$

$$(0,5), \quad m = -2$$

$$(6,-2), \quad m = -\frac{4}{3}$$

$$(-1,-5), \quad m = 1$$

## M10 - 7.2 - Algebra Solve b, m. Slope Intercept Form WS

The graph of  $y = 2x + b$  goes through the following point. What is the value of  $b$  and write the full equation.

$$\begin{array}{ll} (1,4) & y = 2x + b \\ & 4 = 2(1) + b \\ & 4 = 2 + b \\ -2 & -2 \\ 2 & = b \\ y & = 2x + 2 \end{array}$$

$$(4,10)$$

$$(2,7)$$

$$(1,6)$$

$$(4,3)$$

$$(-3, -8)$$

$$(-1, -6)$$

$$(3,4)$$

$$(2,3)$$

$$(2,5)$$

$$(5,2)$$

$$(7,2)$$

$$(3,9)$$

$$(3,2)$$

$$(5,8)$$

$$(6,1)$$

The graph of  $y = mx - 1$  goes through the following points. What is the value of  $m$  and write the full equation.

$$\begin{array}{ll} (4,7) & y = mx - 1 \\ & 7 = m(4) - 1 \\ & 7 = 4m - 1 \\ +1 & +1 \\ 8 & = 4m \\ 8 & = 4m \\ \frac{8}{4} & = \frac{4m}{4} \\ 2 & = m \\ y & = 2x - 1 \end{array}$$

$$(5,8)$$

$$(6,2)$$

$$(2,3)$$

$$(2,5)$$

$$(7,2)$$

## M10 - 7.3 - Identify Slope/Point Slope Point Form HW

**Identify the slope and the point of the following equation.**

$$y - 1 = 2(x - 2)$$

$$y + 3 = \frac{1}{3}(x - 2)$$

$$y - 2 = 2(x + 1)$$

$$y - 2 = (x - 1)$$

$$y + 3 = 2(x - 1)$$

$$y + 5 = \frac{1}{2}(x + 1)$$

$$y - 3 = -\frac{2}{3}(x + 1)$$

$$y + 4 = -(x + 2)$$

$$y = 2(x - 1)$$

$$y + 2 = (x)$$

$$y + 2 = -\frac{1}{2}(x + 1)$$

$$y = (x)$$

# M10 - 7.3 - Point/Slope: Find Eq. Slope Point Form HW

$$y - y_1 = m(x - x_1)$$

**Write in slope-point form.**

$$(1,2), \quad m = 2$$

$$(2,-3), \quad m = 4$$

$$(-2,3), \quad m = 2$$

$$(-3,-2), \quad m = \frac{1}{2}$$

$$(1,5), \quad m = -\frac{2}{3}$$

$$(-2,-3), \quad m = -2$$

$$(-2,-4), \quad m = -5$$

$$(2,-3), \quad m = -1$$

$$(-1,-3), \quad m = \frac{1}{2}$$

$$(0,5), \quad m = -2$$

$$(6,-2), \quad m = -\frac{4}{3}$$

$$(-1,-5), \quad m = 1$$

$$(-3,-1), \quad m = -\frac{5}{4}$$

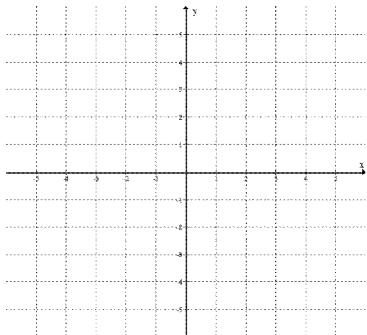
$$(1,0), \quad m = -\frac{2}{3}$$

$$(-1,-2), \quad m = -6$$

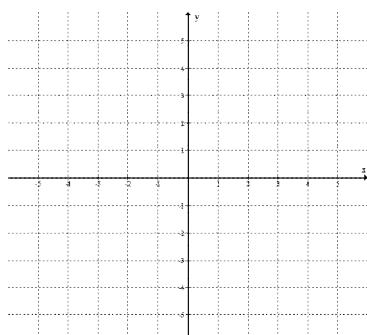
# M10 - 7.3 - Graph Slope Point HMK

Graph the Following

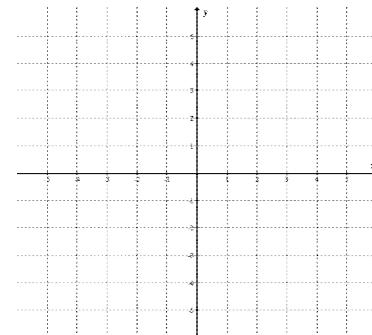
$$y - 1 = 2(x - 2)$$



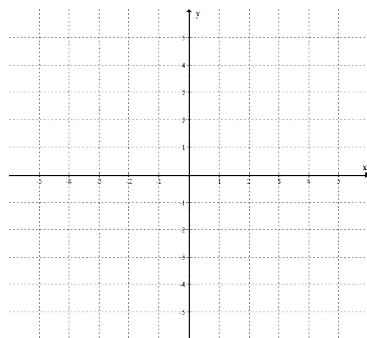
$$y + 3 = \frac{1}{3}(x - 2)$$



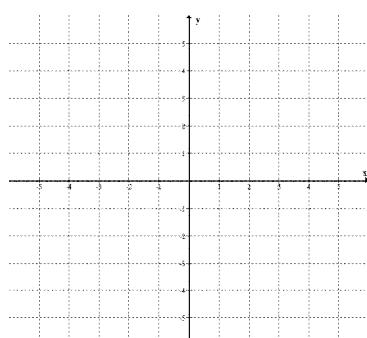
$$y - 2 = 2(x + 1)$$



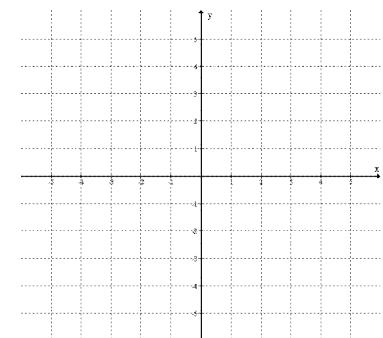
$$y - 2 = (x - 1)$$



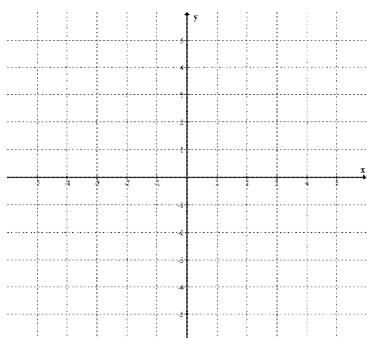
$$y + 3 = 2(x - 1)$$



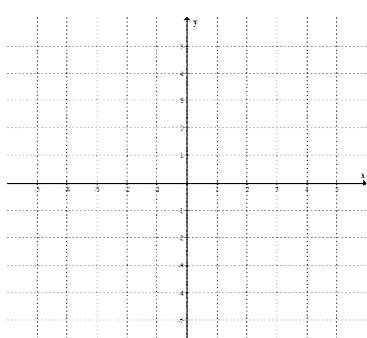
$$y + 5 = \frac{1}{2}(x + 1)$$



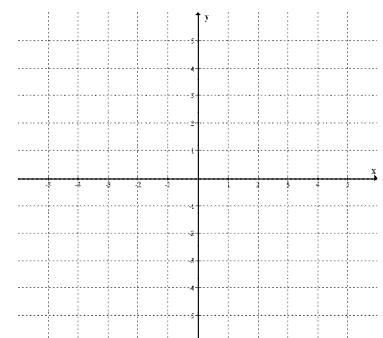
$$y - 3 = -\frac{2}{3}(x + 1)$$



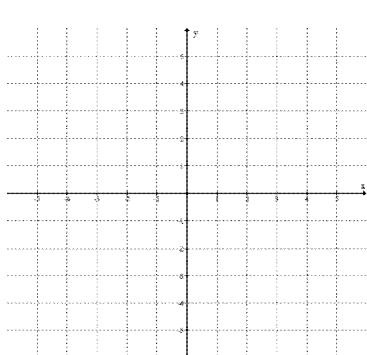
$$y + 4 = -(x + 2)$$



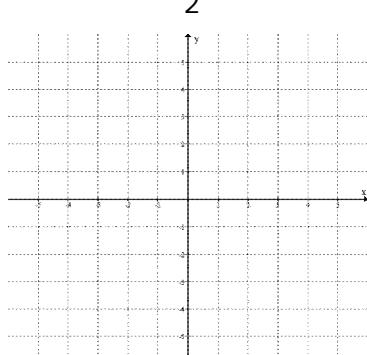
$$y = 2(x - 1)$$



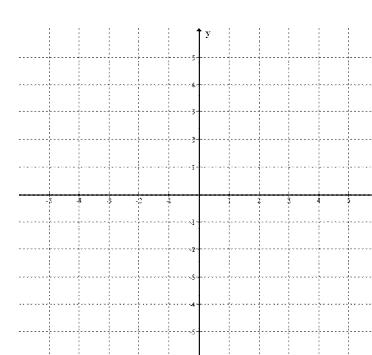
$$y + 2 = (x)$$



$$y + 2 = -\frac{1}{2}(x + 1)$$

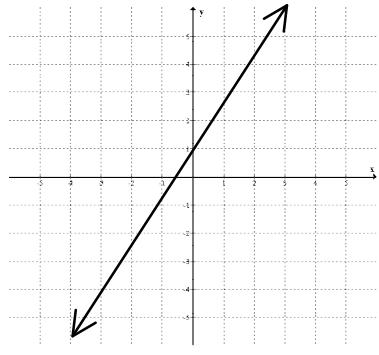
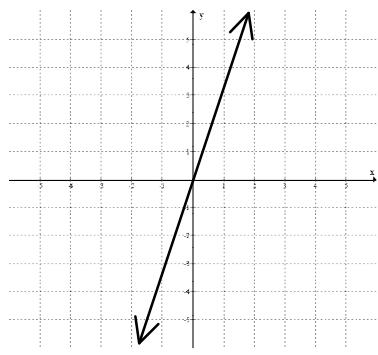
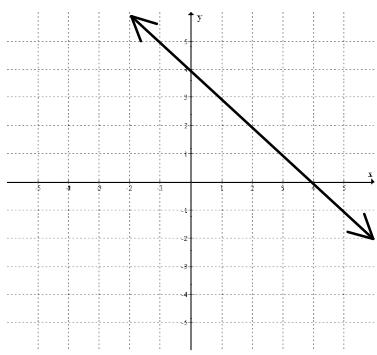
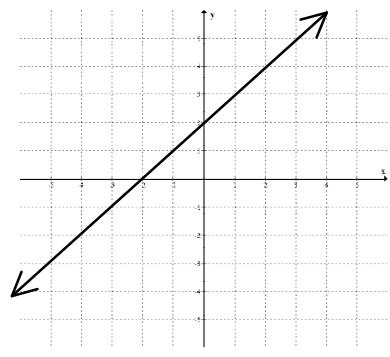
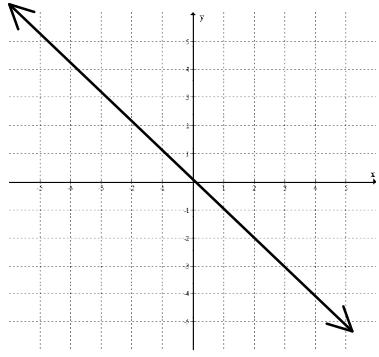
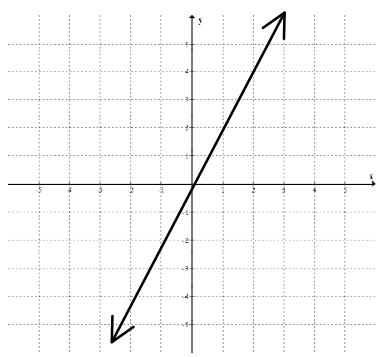
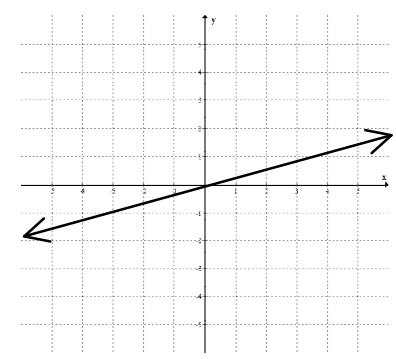
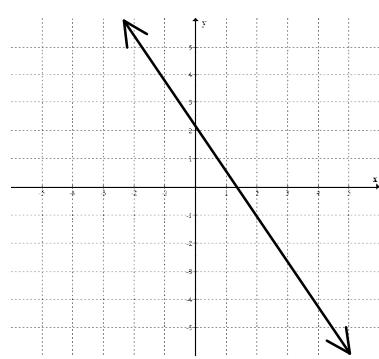
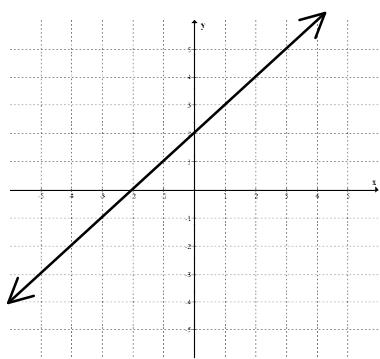
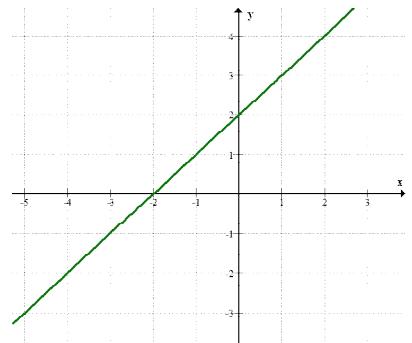
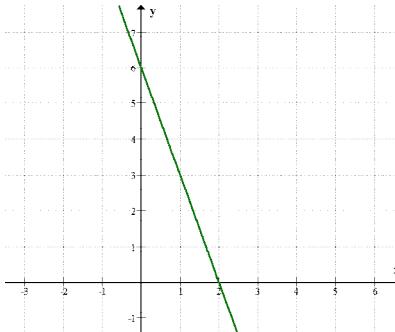
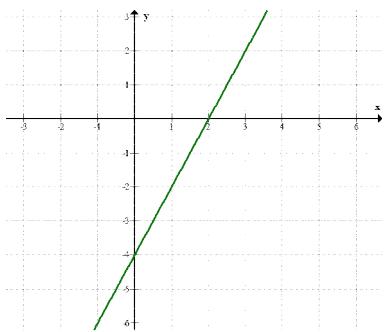


$$y = (x)$$



# M10 - 7.3 - Graph: Find Equation Slope Point Form WS

Find the equations in Slope Point Form of the following lines



# M10 - 7.4 - Slope Point Form - Slope Intercept Form

**Write in Slope Intercept Form**

$$\begin{aligned}y - 1 &= 3(x - 4) \\y - 1 &= 3x - 12 \\+1 &\quad +1 \\y &= 3x - 11\end{aligned}$$

$$y - 4 = 2(x - 1)$$

$$y - 6 = 4(x - 3)$$

$$y + 5 = 3(x - 4)$$

$$y + 3 = 1(x - 2)$$

$$y + 6 = 4(x - 4)$$

$$y - 9 = 7(x + 5)$$

$$y - 7 = 5(x + 1)$$

$$y - 3 = 1(x + 4)$$

$$y + 5 = 3(x + 5)$$

$$y + 4 = \frac{2}{3}(x + 3)$$

$$y + 8 = 6(x + 5)$$

$$y - 4 = -2(x - 1)$$

$$y - 3 = -1(x - 2)$$

$$y + 7 = -\frac{5}{2}(x - 3)$$

$$y + 10 = -\frac{8}{3}(x + 5)$$

$$y - 10 = -8(x + 1)$$

$$-y - 5 = \frac{3}{2}(x - 1)$$

# M10 - 7.4 - Slope Point Form - General Form

**Write in General Form**

$$\begin{array}{llll} y - 4 = 3(x - 1) & y - 4 = 2(x - 5) & y - 8 = 6(x - 3) & y - 10 = 8(x + 3) \\ y - 4 = 3x - 3 & & & \\ +3 & +3 & & \\ y - 1 = 3x & & & \\ -3x & -3x & & \\ y - 3x - 1 = 0 & & & \end{array}$$

$$\begin{array}{llll} y - 7 = 5(x + 2) & y - 2 = \frac{1}{2}(x + 5) & y + 6 = 4(x - 5) & y + 10 = \frac{8}{3}(x - 3) \end{array}$$

$$\begin{array}{llll} y + 3 = 1(x - 2) & y + 4 = \frac{2}{3}(x + 4) & y + 4 = 2(x + 5) & y + 1 = \frac{3}{5}(x - 2) \end{array}$$

$$\begin{array}{lll} y - 9 = -\frac{7}{3}(x - 2) & y - 4 = -2(x + 4) & y + 9 = -3(x - 1) \end{array}$$

# M10 - 7.4 - Slope Intercept Form - General Form

**Write in General Form**

$$y = 1x + 4$$

$$y = 5x + 9$$

$$y = 6x + 8$$

$$y = 5x - 7$$

$$y = 1x - 8$$

$$y = 8x - 2$$

$$y = 7x - 3$$

$$y = -1x + 1$$

$$y = \frac{1}{2}x - 5$$

$$y = \frac{4}{3}x + 5$$

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

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

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

$$y = 8x$$

$$y = 9$$

$$\frac{y}{2} = -\frac{3}{4}x + 4$$

## M10 - 7.4 - General Form - Slope Intercept Form

**Write in Slope Intercept Form**

$$3x + 1y + 3 = 0$$

$$3x + y + 3 = 0$$

$$-3x \quad \quad \quad -3x$$

$$y + 3 = -3x$$

$$-3 \quad \quad \quad -3$$

$$y = -3x - 3$$

$$x + y + 4 = 0$$

$$2x - y + 4 = 0$$

$$8x + 8y - 8 = 0$$

$$2x + \frac{1}{2}y - 4 = 0$$

$$16x + 4y - 4 = 0$$

$$-32x + 8y + 16 = 0$$

$$-8x + \frac{4}{3}y - 12 = 0$$

$$-\frac{3}{2}x - 3y + 12 = 0$$

$$\frac{1}{2}x - \frac{2}{3}y + 9 = 0$$

$$-\frac{2}{3}x + \frac{1}{6}y - 2 = 0$$

$$-1x - 1y - 3 = 0$$

## M10 - 7.5 - Parallel and Perpendicular Slope WS

Find the parallel and perpendicular slope to the following slopes.

$$m = 2$$

$$m = -3$$

$$m = \frac{-1}{2}$$

*Parallel:*  $m = 2$

*Perpendicular:*  $m = -\frac{1}{2}$

$$m = \frac{2}{3}$$

$$m = 0$$

$m = \text{undefined}$

Find the slope of the line, and the slope of the line parallel and perpendicular to it.

$$y = \frac{3}{4}x + 7$$

$$2x + 3y = 5$$

$$y - 2 = 3(x - 4)$$

$$y = 5$$

$$x + 2 = 0$$

$$y + 1 = -\frac{1}{2}(x + 2)$$

A line passes through  $(1, 7)$  and  $(-3, -1)$ . What is the slope of a line parallel and perpendicular to this line.

# M10 - 7.5 - Parallel/Perpendicular Lines WS

**Write an equation of a line parallel to the given lines, and an equation of a line perpendicular to the given lines.**

Parallel Line:

a)  $y = 2x + 1$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

Perpendicular Line:

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

b)  $y = 3x + 2$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

c)  $y = x$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

d)  $2y = 4x$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

e)  $3y = 9x$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

f)  $3y - 12x = 0$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

g)  $-4y + 16x = 0$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

h)  $y = -2x - 3$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

i)  $y = -3x + 6$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

$y = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$

## M10 - 7.4 - Parallel/Perpendicular Lines WS

**Find the value of "p" if the lines are parallel, and if the lines are perpendicular.**

$$m = \frac{p}{5}, m = 2$$

Parallel

Perpendicular

$$m = \frac{8}{p}, m = \frac{-1}{2}$$

Parallel

Perpendicular

**Are the following parallel, perpendicular, or neither?**

$$\begin{aligned}y &= -2x + 1 \\y &= 2x + 4\end{aligned}$$

$$\begin{aligned}y &= 3x + 5 \\y &= \frac{-1}{3}x - 2\end{aligned}$$

$$\begin{aligned}y &= x + 9 \\y &= x + 2\end{aligned}$$

**Find the equation parallel to the following line, passing through the following point.**

$$y = 2x + 1, (3, 5)$$

**Find the equation perpendicular to the following line, passing through the following point.**

$$y = 3x + 2, (6, -3)$$