## M10-7.1-Find $x \& y$-Intercept HW

Find and label the $\mathbf{x} \& \mathrm{y}$-intercept and Slope of the following lines.







Find and label Intercepts, state multiple Points, Slope, and Equation of the following graphs.



## M10-7.1-Graphing Standard Form HW

Graph the line using the $x$ and $y$ intercept method

| $6 x+3 y=12$ |
| :--- |


| $\boldsymbol{x}$ | $\boldsymbol{y}$ |
| :---: | :---: |
| 0 |  |
|  | 0 |


$3 x+2 y=6$

$4 x+2 y=8$


## M10-7.1-Graphing Standard Form HW

Graph the line using the $\mathbf{x}$ and $\mathbf{y}$ intercept method

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


$$
y=0
$$



# M10-7.2-y - int/Slope: Slope Intercept Form HW 

Write in $\boldsymbol{y}=\boldsymbol{m} \boldsymbol{x}+\boldsymbol{b}$.

Slope $=-2, y-$ intercept $=3$

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

Slope $=1, y-$ intercept $=0$

Slope $=0, y-$ intercept $=0$

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

Slope $=3, y-$ intercept $=-2$

Slope $=2, y-$ intercept $=0$

Slope $=1, y-$ intercept $=0$

Slope $=$ undefined, $x-$ intercept $=3$

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

Slope $=-0.2, y-$ intercept $=-2$
Slope $=4, y-$ intercept $=-1$

Slope $=-0.5, y-$ intercept $=-4$

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

$$
0
$$

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

Slope $=$ undefined,$x-$ intercept $=0$

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

Identify slope and $y$-intercept.
$y=2 x+1$
$y=-3 x-4$
$y=x$
$y=4$
$y=-\frac{1}{3} x+4$
$x=3$
$y=2 x+3$
$y=\frac{3}{2} x-2$
$y=5$
$x=0$

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

$$
y=0
$$

$$
y=-2 x+7
$$

$y=3 x$
$y=0.2 x+1$

## M10-7.2-Graph Slope Intercept HW

Graph the Following

$$
y=x+1
$$

$$
y=-x-2
$$

$$
y=2 x+1
$$



$$
y=3 x
$$




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

$$
y=-2 x+4
$$



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

$$
y=3 x+5
$$



$$
y=3 x-4
$$





$$
y=5
$$

$$
x=2
$$

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





M10-7.2 - Find Equation Slope Intercept Form HW
Find the equations in Slope Intercept Form of the following lines.













## 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 $\quad y-y_{1}=m\left(x-x_{1}\right)$ 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 HW

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 HW

Find the equations in Slope Point Form of the following lines













## M10-7.4-Point/Slope: Slope Intercept Form HW

Write in $y=m x+b$
$(1,3), \quad m=2$
$(-2,3), \quad m=2$
$(-2,-3), \quad m=-2$
$(-3,-2), \quad m=\frac{1}{2}$
$(2,-3), \quad m=0$
$(1,5), \quad m=u n d$
$(1,2), \quad m=-6$
$(0,5), \quad m=-2$
$(2,-3), \quad m=-1$
$(6,-2), \quad m=-\frac{4}{3}$
$(-1,-3), \quad m=\frac{1}{2}$

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

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

## Write in Slope Intercept Form

$$
\begin{array}{rlr}
y-1 & =3(x-4) & y-4=2(x-1) \\
y-1 & =3 x-12 & \\
+1 & +1 \\
y & =3 x-11 &
\end{array}
$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Write in General Form

$$
y=1 x+4
$$

$$
y=5 x+9
$$

$$
y=6 x+8
$$

$$
y=1 x-8
$$

$$
y=8 x-2
$$

$$
y=7 x-3
$$

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

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

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

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

$$
y=8 x
$$

$$
y=9
$$

## M10-7.4 - Slope Point Form - General Form HW

## Write in General Form

$y-4=3(x-1)$
$y-4=2(x-5)$
$y-8=6(x-3)$
$y-4=3 x-3$
$+4+4$
$y=3 x+1$
$-y \quad-y$ $0=3 x-y-1$

$$
y-7=5(x+2)
$$

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

$$
y+6=4(x-5)
$$

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

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

$$
y+4=2(x+5)
$$

$y-9=-\frac{7}{3}(x-2)$

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

$$
y+9=-3(x-1)
$$

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

## Write in Slope Intercept Form

$$
\begin{array}{rlrl}
3 x+1 y+3 & =0 & x+y+4=0 & 2 x-y+4=0 \\
3 x+y+3 & =0 & \\
-3 x & -3 x & & \\
y+3 & =-3 x & & \\
-3 & -3 & -3 x-3 &
\end{array}
$$

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

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

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

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

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

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

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

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

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

## M10-7.5-Parallel and Perpendicular Slope HW

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.

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

$$
2 x+3 y=5
$$

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

$$
y=5
$$

$$
x+2=0
$$

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

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 HW

Find the value of " $\boldsymbol{p}$ " if the lines are parallel, and if the lines are perpendicular.

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

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

Are the following parallel, perpendicular, or neither?

$$
\begin{array}{lll}
y=-2 x+1 & y=3 x+5 & y=x+9 \\
y=2 x+4 & y=\frac{-1}{3} x-2 & y=x+2
\end{array}
$$

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

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

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

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

