## 4.5: Graph Lines Using Slope - Intercept Form

*GOAL* - Rewrite equations so they are in slope - intercept form

- Identify slope and $y$-intercept of a line from an equation
- Identify slope and $y$-intercept of a line graphed
- Use slope - intercept form to graph a line


## Slope - Intercept Form:

$\square$

Write the following equations in slope - intercept form if necessary, then identify the slope and the $y$-intercept:
Ex: $y=3 x+4$
Ex: $y=-3 x+2$

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

Ex: $\quad y=-\frac{1}{4} x+1.5$
Ex: $-x+y=4$

## Graph an equation of a line using slope - intercept form:

1. Make sure the equation is written in $\qquad$ .
2. Identify $\qquad$ and $\qquad$

- make sure the slope is written as a $\qquad$ so you can identify
$\qquad$ and $\qquad$

3. Graph $\qquad$ first. Your only choices are $\qquad$ or $\qquad$ .
4. Moving from the $y$-intercept go where the $\qquad$ and $\qquad$ tells you to go.
5. Plot multiple points and connect.

## Graph using slope - intercept form:

Ex: $y=-2 x+3$


Ex: $y=-2 x+5$



$$
\text { Ex: } y=\frac{3}{4} x
$$


$\mathbf{E x}: \quad y=-\frac{2}{5} x+1$



Ex: $-x+y=3$


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


