Name: $\qquad$ Class: $\qquad$
M8-U4: Notes \#5 - Graphing Linear Relationships
Date: $\qquad$

## Warm-Up!

1. For a homework assignment, Sarah must draw a line passing through the points $(-3,-3)$ and (3, 3). Graph Sarah's line on the grid below.

2. Graph a line that goes through the following 2 points: $(-4,3),(2,-1)$


## Graph a linear relationship based on information provided:

1. Given slope of $\frac{2}{3}$ and the $y$-intercept is 3 .

2. Given slope of 0 and the $y$-intercept is 1 .

3. $\quad$ Given $m=-2$ and the $y$-intercept is $(0,2)$.

4. Given $m=-\frac{1}{4}$ and the point $(0,-1)$.


## Graph the linear equations: (Hint: identify the slope and $y$-intercept)

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

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

3. Graph: $y=-x+5$.

4. $y=3 x-1$


## Graphing Equations by Making Tables:

1. Erika is assigned to graph the line of the equation $y=2 x-3$. Use Erika's equation to complete the table below for the given values of $x$.

| $x$ | $y$ |
| ---: | ---: |
| -1 |  |
| 1 |  |
| 3 |  |

Using the information from the table, graph the line of the equation $y=2 x-3$ on the coordinate plane below. Be sure to plot all points from the table and draw a line connecting the points.

2. Ken used the function rule below to create a number pattern.

$$
y=2 x+2
$$

Complete the table below using Ken's function rule.

| $x$ | $y$ |
| :---: | :---: |
| -4 |  |
| -2 |  |
| 0 |  |
| 1 |  |
| 3 |  |

On the coordinate plane below, plot the values of $x$ and $y$ and connect the points with a line.


