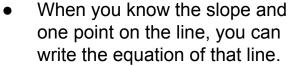
## Linear Equations from Slope and/or Points Notes

## Important Information

• If given 2 points on a line, you can find the slope. See example below...

Slope = 
$$\frac{rise}{rvn} \Leftrightarrow = \frac{\Delta y}{\Delta x}$$
  
 $4 + \Delta y = 6$   $-2 + \Delta x = 1$   
 $4 + \Delta y = 2$   $-2 + \Delta x = 1$   
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- If given 2 points on a line, you can also write the equation of that line.
  - First find the slope (see notes at left).
  - Then use the slope and one point to solve for b (see notes bottom left).
  - Then substitute m and b into y=mx+b.



 If m=2 and the point (4, 15) is on the line, substitute everything you have into y=mx+b and solve for b.

$$M=2$$
 $y=mx+b$ 
 $y=mx+b$ 
 $y=15=2(4)+b$ 
 $y=8+b$ 
 $y=15=8+b$ 
 $y=15=15$ 
 $y=15=$ 

Your Own Example....

---Pick 2 points of your own and find the slope of the line.

