

## Bellwork

1. Identify the general equation for each of the given types of linear models:

**Slope-Intercept Form:**

**Point-Slope Form:**

2. What does each of the variables represent?

## Finding a Linear Equation

1. Label the given points as  $(x_1, y_1)$  and  $(x_2, y_2)$ . A.  $(-3, 17)$  &  $(1, -3)$  B.  $(-1, -30)$  &  $(3, 50)$
  
2. Find the slope of the line connecting the two points together using the formula:

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

3. Using the  $m$  that you just found, write the equation  $y = mx + b$  filling in for the  $m$ .
  
4. Choose one of the points you were given and plug it in for the  $x$  and  $y$  in the problem.  
Given  $(-3, 17)$  &  $(1, -3)$   
Given  $(-1, -30)$  &  $(3, 50)$
  
5. Solve for  $b$ .

6. Rewrite  $y = mx + b$   
now filling in JUST  
the  $m$  and the  $b$   
values that we have  
found throughout  
the process.