

Writing equations

① Slope intercept

$$y = mx + b$$

② Point-slope

$$y - y_1 = m(x - x_1)$$

③ Standard

$$Ax + By = C$$

You will be given parts of an equation. You have to write an equation using the things given.

You can you use any form you choose as long as those pieces are in it.

ex 1:

Has a slope of $\frac{1}{2}$

$$y = m x + b$$

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

**b can be any number you choose as long as the slope is $\frac{1}{2}$ **

ex 2:

has a y-intercept of
-3

$$b = -3$$

$$y = 7x - 3$$

the slope can be any number you choose as long as the y-intercept is -3

ex 3:

has to have a slope
of 2 through (6, 2)

$$y - y_1 = m(x - x_1)$$

$$y - 2 = 2(x - 6)$$

ex 4:

$(3, 2)$ $(-1, 4)$

$$\frac{Y_2 - Y_1}{X_2 - X_1} = \text{slope}$$

****Find the slope first, then write an equation****