

Converting between forms

Now convert.....
Point slope form

Slope intercept form

Standard form

① Slope

$$m = \frac{-1-4}{6-1}$$

$$m = \frac{-5}{5} = -1$$

A line passes through the points (1,4) and (6,-1) find the equation of this line in:

A.) Point slope form

B.) Slope intercept form

C.) Standard form

① A) $y - y_1 = m(x - x_1)$

$y - 4 = -1(x - 1)$ and $y + 1 = -1(x - 6)$

② B) $y = mx + b$

$$y - 4 = -x + 1$$

$$+4 \quad +4$$

$$y = -x + 5$$

③ C) $Ax + By = C$

$$y = -x + 5$$

$$+x \quad +x$$

$$x + y = 5$$

①

$$m = \frac{0-6}{6+3}$$

$$m = -\frac{6}{9}$$

$$m = -\frac{2}{3}$$

A line passes through the points (-3,6) and (6,0) find the equation of this line in:

A.) Point slope form

B.) Slope intercept form

C.) Standard form

① A) $y - 6 = -\frac{2}{3}(x + 3)$ and $y - 0 = -\frac{2}{3}(x - 6)$

② B) $y - 6 = -\frac{2}{3}x - 2$

$$+6 \quad +6$$

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

③ C) $y = -\frac{2}{3}x + 4$

$$+\frac{2}{3}x \quad +\frac{2}{3}x$$

$$3 \left(\frac{2}{3}x + y = +4 \right) \cdot 3$$

$$2x + 3y = 12$$