LF 5b Solving Equations for y in terms of x.notebook

Solving Equations for *y* in terms of *x*

Examples
Solve the following equations for y in terms of x.

— isolate y

$y = mx + b$

slope-intercept form
(m)   (b)

1.) $2y = \dfrac{4x}{2} - \dfrac{6}{2}$

$y = 2x - 3$

↑ m   ↑ b = -3

2.) $2x + y = 5$ $-2x$ $-2x$

$y = -2x + 5$

↑ m   ↑ b = 5

3.) $x - y = 8$ $-x$

$\dfrac{-y}{-1} = \dfrac{-x}{-1} + \dfrac{8}{-1}$

or multiply by (-1)

$y = x - 8$

$m = 1$ $b = -8$

4.) $-3x - 2y = -1$ $+3x$ $+3x$

$\dfrac{-2y}{-2} = \dfrac{3x}{-2} - \dfrac{1}{-2}$

$y = -\dfrac{3}{2}x + \dfrac{1}{2}$

↑ m   ↑ b

5.) $x - 4y = 3$

$\dfrac{-4y}{-4} = \dfrac{-x}{-4} + \dfrac{3}{-4}$

$y = \dfrac{1}{4}x - \dfrac{3}{4}$

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