

Some of this, some of that - Intro to Piecewise Functions

I can write 1 function made up of different functions.

Slope-intercept form: $y = mx + b$ ex. $y = 2x - 1$

$\begin{matrix} \text{y-coordinate} & & \text{x-coordinate} \\ \uparrow & & \uparrow \\ \text{slope} & & \text{y-intercept} \end{matrix}$

$m = 2$
 $b = -1$

Point-slope form: $y - y_1 = m(x - x_1)$

$\begin{matrix} & \text{slope} \\ & \swarrow \\ \uparrow & & \uparrow \\ \text{y-coordinate} & & \text{x-coordinate} \end{matrix}$

ex. $m = 3$ point $(10, 15)$

$y - 15 = 3(x - 10)$

OR

$y = 3(x - 10) + 15$