

HAPPY TRAILS NOTES

- | | |
|------------------------|----------------------|
| X | Y |
| • INDEPENDENT VARIABLE | • DEPENDENT VARIABLE |
| • DOMAIN | • RANGE |

SEE HAPPY TRAILS HANDOUT

USE THE TABLE TO WRITE A LINEAR FUNCTION THAT RELATES Y TO X.

SLOPE
↓
 $y = mx + b$
↑
Y-INT

Ex:

		$\Delta x \rightarrow +1$	$+1$	$+1$
X	-2	-1	0	1
Y	4	1	-2	-5
		$\Delta y \rightarrow -3$	-3	-3

$$\begin{aligned} \text{SLOPE} &= \frac{\Delta y}{\Delta x} \\ &= \frac{-3}{+1} \\ &= -3 \end{aligned}$$

$$y = -3x - 2$$

Ex:

		$\Delta x \rightarrow +1$	$+1$	$+1$
X	1	2	3	4
Y	11	15	19	23
		$\Delta y \rightarrow +4$	$+4$	$+4$

$$\begin{aligned} \text{SLOPE} &= \frac{\Delta y}{\Delta x} \\ &= \frac{4}{1} \\ &= 4 \end{aligned}$$

$$y = 4x + 7$$

0
7

Ex:

		$\Delta x \rightarrow +1$	$+1$	$+1$
X	-3	-2	-1	0
Y	-2	-4	-6	-8
		$\Delta y \rightarrow -2$	-2	-2

$$\begin{aligned} \text{SLOPE} &= \frac{\Delta y}{\Delta x} \\ &= \frac{-2}{1} \\ &= -2 \end{aligned}$$

$$y = -2x - 8$$