

Objective 7 Remediation

Express a pattern as an equation given a table.

Writing an equation from a table:

- Use $y = mx + b$ (Slope-Intercept Form)
- Determine m (Slope) by finding the change in y divided by the change in x
 - Determine b (Y-intercept) by finding the y value when $x = 0$
 - Substitute m and b into $y = mx + b$

Ex. A

x	0	1	2	3	4	5
y	12	15	18	21	24	27

$$m = \frac{\Delta y}{\Delta x} = \frac{15 - 12}{1 - 0} = \frac{3}{1} = 3$$

$$b = 12$$

$$y = mx + b$$

$$y = 3x + 12$$

Ex. B

x	2	4	6	8	10	12
y	3	-2	-7	-12	-17	-22

$$m = \frac{\Delta y}{\Delta x} = \frac{-2 - 3}{4 - 2} = \frac{-5}{2}$$

$$b = 8$$

$$y = mx + b$$

$$y = -\frac{5}{2}x + 8$$

Write the equation for the given table.

Ex. 1

x	0	1	2	3	4	5
y	0.5	1	1.5	2	2.5	3

Equation: _____

Ex. 2

x	-2	0	2	4	6	8
y	-12	-14	-16	-18	-20	-22

Equation: _____

Ex. 3

x	5	10	15	20	25	30
y	3	0	-3	-6	-9	-12

Equation: _____

Ex. 4

x	3	5	7	9	11	13
y	35	37	39	41	43	45

Equation: _____

Ex. 5

x	12	24	36	48	60	72
y	6	12	18	24	30	36

Equation: _____

Ex. 6

x	-8	-7	-6	-5	-4	-3
y	5	0	-5	-10	-15	-20

Equation: _____