Completing a Table of Values

Fill in the guided notes as you watch the video in the Digital Toolbox.

- A table of values for an equation is a set of **points** you can graph on a coordinate plane.
- The **relationship** between the x- and y-coordinates can be determined by completing a table of values.
- To complete a table of values using the given equation:

  1) **Substitute** the values for the variable x, one at a time, into the equation.

  2) **Solve** the equation for the missing variable, y.

Example 1

Complete the example as you watch the video in the Digital Toolbox.

Complete the table using the equation.

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

Implement

x	y
-2	-4
0	-3
2	-2

$$y = \frac{1}{2}(-2) - 3 = -1 - 3 = -4$$

$$y = \frac{1}{2}(0) - 3 = 0 - 3 = -3$$

$$y = \frac{1}{2}(2) - 3 = 1 - 3 = -2$$

Explain

Replace the x-values one at a time to solve for y.

Complete the table.

Example 2

Complete the example as you watch the video in the Digital Toolbox.

Complete the table using the equation.

$$y = -\frac{5}{3}x + 1$$

Implement

x	y
–3	6
0	1
3	–4

$$y = -\frac{5}{3}(-3) + 1 = 5 + 1 = 6$$

$$y = -\frac{5}{3}(0) + 1 = 0 + 1 = 1$$

$$y = -\frac{5}{3}(3) + 1 = -5 + 1 = -4$$

Explain

Replace the x-values one at a time to solve for y.

Complete the table.

Practice

Complete the table of values. Show your work.

1) $y = 3x + 2$

x	y
-1	-1
0	2
1	5

$y = 3(-1) + 2 = -3 + 2 = -1$

$y = 3(0) + 2 = 0 + 2 = 2$

$y = 3(1) + 2 = 3 + 2 = 5$

2) $y = \frac{1}{4}x$

x	y
-4	-1
0	0
4	1

$y = \frac{1}{4}(-4) = -1$

$y = \frac{1}{4}(0) = 0$

$y = \frac{1}{4}(4) = 1$

3) $y = -x + 3$

x	y
-1	4
0	3
1	2

$y = -(-1) + 3 = 1 + 3 = 4$

$y = -(0) + 3 = 0 + 3 = 3$

$y = -(1) + 3 = -1 + 3 = 2$

Complete the table of values. Show your work.

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

x	y
−3	0
0	2
3	4

$y = \frac{2}{3}(-3) + 2 = -2 + 2 = 0$

$y = \frac{2}{3}(0) + 2 = 0 + 2 = 2$

$y = \frac{2}{3}(3) + 2 = 2 + 2 = 4$

5) $y = -\frac{5}{4}x - 1$

x	y
−4	4
0	−1
4	−6

$-\frac{5}{4}(-4) - 1 = 5 - 1 = 4$

$-\frac{5}{4}(0) - 1 = 0 - 1 = -1$

$-\frac{5}{4}(4) - 1 = -5 - 1 = -6$

6) $y = -12x - 3$

x	y
−1	9
0	−3
1	−15

$-12(-1) - 3 = 12 - 3 = 9$

$-12(0) - 3 = 0 - 3 = -3$

$-12(1) - 3 = -12 - 3 = -15$