LESSON MAKER PRO

Table It Out

Build input-output tables for linear functions.

GRADE 8 · 8.PFA.3.d

8.PFA.3.d "Create a table of values for a linear function given a graph, equation in the form of y = mx + b, or context."

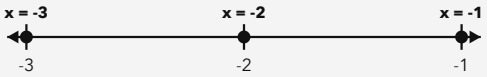
NAME _____ **DATE** _____

FROM RULE TO TABLE

In y = mx + b, choose each x-value and substitute it into the rule. Write each x-value with its matching y-value in the same column of a table.

WORKED EXAMPLE

The number line shows x-values. Use y = 7x + 9 to create a table of values.



1. Use y = 7x + 9.
2. For x = -3, y = 7(-3) + 9 = -12.
3. For x = -2 and x = -1, y = -5 and y = 2.

Answer: x: -3, -2, -1 y: -12, -5, 2

PRACTICE 4 problems

1 Create a table for y = 3x + 1 when x = 1, 3, and 5.

ANSWER _____

2 Create a table for y = -4x + 11 when x = 1, 2, and 3.

ANSWER _____

3 Create a table for y = 5x - 2 when x = 0, 1, and 2.

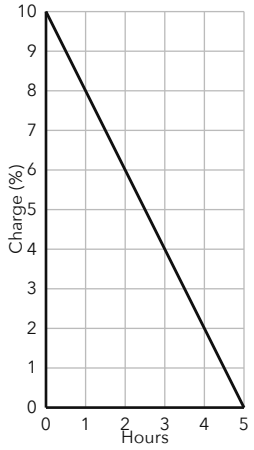
ANSWER _____

4 A music app starts with 12 downloaded songs and adds 3 songs each week. Let x be weeks and y be songs. Create a table for x = 0, 2, and 4.

ANSWER _____

APPLY IT Show your work

1 The graph shows a gaming headset's battery charge, y, after x hours. Create a table for x = 0, 2, and 5.



ANSWER _____

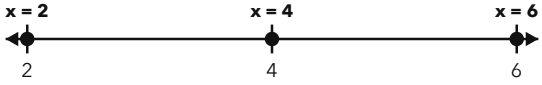
2 A school club has $6 and earns $4 for each car wash. Let x be car washes and y be dollars. Create a table for x = 0, 3, and 5.

WORK SPACE

ANSWER _____

CHALLENGE One step up

The number line lists the x-values for y = -3x + 20. Create a table. Then identify the x-value with a y-value closest to 10. Explain.



WORK SPACE AND ANSWER

ANSWER KEY

Table It Out

GRADE 8 · 8.PFA.3.d

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Create a table for y = 3x + 1 when x = 1, 3, and 5.	**x: 1, 3, 5 y: 4, 10, 16**
2	Create a table for y = -4x + 11 when x = 1, 2, and 3.	**x: 1, 2, 3 y: 7, 3, -1**
3	Create a table for y = 5x - 2 when x = 0, 1, and 2.	**x: 0, 1, 2 y: -2, 3, 8**
4	A music app starts with 12 downloaded songs and adds 3 songs each week. Let x be weeks and y be songs. Create a table for x = 0, 2, and 4.	**x: 0, 2, 4 y: 12, 18, 24**

PART 2 · APPLY IT

1. **x: 0, 2, 5 y: 10, 6, 0** Read the y-value on the line for each requested x-value.
2. **x: 0, 3, 5 y: 6, 18, 26** Use y = 4x + 6 and substitute each x-value.

CHALLENGE

x: 2, 4, 6 y: 14, 8, 2 x = 4. Its y-value is 8, which is 2 away from 10.

Accept tables with x-values and matching y-values arranged in rows or columns. Accept a correct explanation that compares each y-value's distance from 10.