4.4.1: Graphing a Function Rule

Vocabulary

Domain: The set of all _____of a relation.

Other words that go with domain:

Range: The set of all _____ of a relation.

Other words that go with range:

Function Rule: Another name for an _____.

Graphing a function Rule

Steps:

1. Make a _____ of values.

X-Value: Input	Equation	Y-Value: Output	Coordinate point (x,y)

2. Graph the _____.

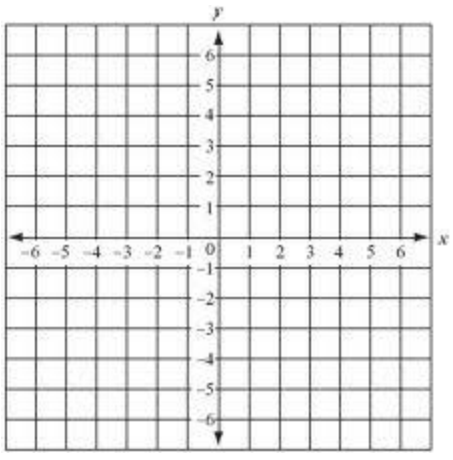
Example 1: Graphing a function rule

What is the graph of the function rule y= -2x+1.

Step 1: Make Table of Values.

X-Value: Input	**Equation**	**Y-value: Output**	**Coordinate Point**

Step 2: Graph.



4.4.1: Graphing a Function Rule

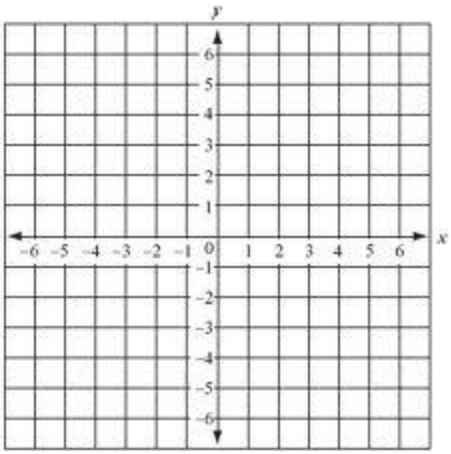
Example 2: Graphing a function rule

What is the graph of the function rule y = lxl – 4.

Step 1: Make Table of Values.

X-Value: Input	Equation	Y-value: Output	Coordinate Point

Step 2: Graph.



Example 3:

The function rule **W = 146c + 30,000** represents the total weight W, in pounds, of a concrete mixer truck that carries c cubic feet of concrete. If the capacity of the truck is about 200 ft^3, what is a reasonable graph of the function rule?

Step 1: Make a Table

X-Value: Input	Equation	Y-value: Output	Coordinate Point

Step 2: Graph the ordered pairs.

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Example 4:

The function rule **W = 8g+700** represents the total weight W, in pounds, of a spa that contains g gallons of water. What is a reasonable graph of the function rule, given that the capacity of the spa is 250 gallons?

Step 1:

X-Value: Input	**Equation**	**Y-value: Output**	**Coordinate Point**

Step 2:

Vocabulary:

Continuous Graph: A graph that is _____.

Discrete Graph: A graph that is _____ of _____ points.

Example 5: Identifying Continuous and Discrete Graphs

Would the following be an example of a continuous or discrete graph???

A. The weight of cheese, in ounces, depends on the number of gallons m of milk used. So **W=16m.(Graph the function rule)**

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B. The amount a of money made from selling cheese depends on the number n of wheels sold so **a = 9n. (Graph the function rule)**

C. The amount of water w in a wading pool, in gallons, depends on the amount of time t, in minutes, the wading pool has been filling, as related by the function rule **w = 3t.**

D. The cost C for baseball tickets, in dollars, depends on the number n of tickets bought, as related by the function rule **C = 16n.**