

12-6

Name _____ Date _____

Graphing Functions (pages 500–503)

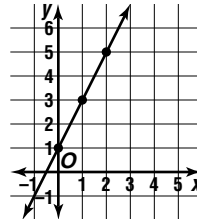
You can graph a function rule or equation on a coordinate system.

Graphing Functions	When you have a function table, graph the function with these steps.
	<ul style="list-style-type: none"> • Write ordered pairs (input, output) from the function table. • Graph each ordered pair on the coordinate system. • Join the graphed points with a line.
	When you have a function rule, make a function table for 3 or 4 input values and then graph that table with the steps above.

EXAMPLE

Graph $y = 2x + 1$.

input	function rule	output	ordered pairs
x	$2x + 1$	y	(x, y)
0	$2(0) + 1$	1	$(0, 1)$
1	$2(1) + 1$	3	$(1, 3)$
2	$2(2) + 1$	5	$(2, 5)$

**PRACTICE**

Graph the functions represented by each function table.

1.

input	output
1	-1
3	1
5	3

2.

input	output
-4	-1
0	3
4	7

Complete each function table. Then graph the function

3.

n	$n - 1$
2	
4	
6	

4.

n	$n + 4$
-1	
-2	
-3	

5. **Fitness** Jakira is training for a triathlon. She runs 3 miles every day. What is the function rule that you could use to determine how far Jakira runs if the input is the number of days?



6. **Standardized Test Practice** What is y (the output) for the function rule $4x$ if $x = 10$?

A 6**B** 40**C** 80**D** 4

Answers: 1–2. See Answer Key. 3–4. See Answer Key for graphs. 3. 1, 3, 5 4. 3, 2, 1 5. $3n$ 6. B