

Name _____

Writing Equations

Example 1

Examine the values in the table at the right and write an equation that describes the relationship between x and y .

Notice that each y -value is always 1 less than the corresponding x -value. The relationship can be described by the equation $y = x - 1$.

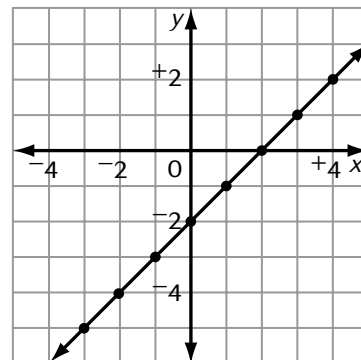
x	y
-2	-3
-1	-2
0	-1
+1	0
+2	+1

Example 2

Look at the graph of the line at the right. Find the equation that describes the relationship between x and y .

Make a table and look for a pattern that can help you describe the relationship between x and y .

x	-3	-2	-1	0	+1	+2	+3	+4
y	-5	-4	-3	-2	-1	0	+1	+2



Each y -value is 2 less than the x -value. The equation of the line is $y = x - 2$.

Write an equation that describes the relationship between x and y .

1.

x	y
-2	+4
-1	+5
0	+6
+1	+7
+2	+8

2.

x	y
-2	-6
-1	-5
0	-4
+1	-3
+2	-2

3.

x	y
-2	-9
-1	-8
0	-7
+1	-6
+2	-5

4.

x	y
-2	+6
-1	+7
0	+8
+1	+9
+2	+10

Name _____

Writing Equations (continued)

Write an equation that describes the relationship between x and y .

5.

x	y
-2	-7
-1	-6
0	-5
+1	-4
+2	-3

6.

x	y
-2	-1
-1	0
0	+1
+1	+2
+2	+3

7.

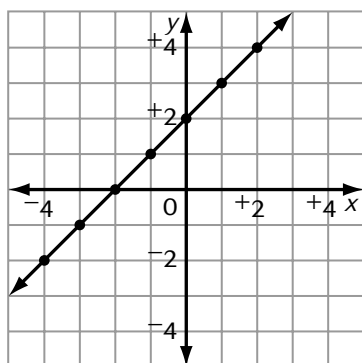
x	y
-2	-11
-1	-10
0	-9
+1	-8
+2	-7

8.

x	y
-2	-5
-1	-4
0	-3
+1	-2
+2	-1

Make a table of values to describe the graph. Then write an equation.

9.



x							
y							

Test Prep Choose the correct letter for the answer.

10. Which equation describes the graph at the right?

- A** $y = x - +4$
- B** $y = x + +3$
- C** $y = x + +5$
- D** $y = x + +1$

