

9 Chapter Test

Draw a mapping diagram of the set of ordered pairs.

1. $(1, 0), (2, 1), (3, 0), (4, 1)$

2. $(3, 10), (6, 8), (9, 9), (12, 5)$

3. Write an equation for the function "The output is 6 less than the input." Then copy and complete the table.

Input, x	10	11	12	13
Output, y				

4. Tell whether $(3, 2)$ is a solution of $y = 2x - 4$.

5. Write an equation for the function shown by the table.

Input, x	3	4	5	6
Output, y	9	10	11	12

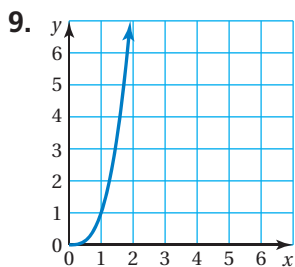
Graph the function.

6. $y = x + 8$

7. $y = 3x + 1$

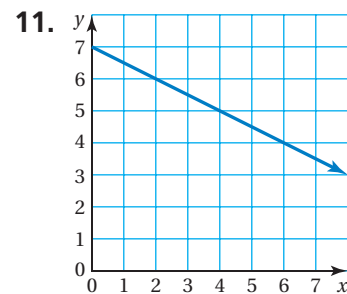
8. $y = x - 4$

Does the graph or table represent a linear function? Explain.



10.

Input, x	Output, y
6	4
7	1
8	0
9	1



12. **GRASSHOPPER** The table shows the lengths of four grasshoppers and their jump heights. Use the table to draw a mapping diagram.

Body Length, (mm)	5	6	7	8
Jump Height, (mm)	50	60	70	80

13. **WATER SKI** The table shows the number of meters a water skier travels in x minutes.

Minutes, x	1	2	3	4	5
Meters, y	600	1200	1800	2400	3000

- Graph the data.
- Find a function to describe the data.
- At this rate, how many kilometers would the water skier travel in 1 hour?

14. **PATTERN** Make an input-output table for the pattern. Is the function relating the figure number x to the number of dots y linear? Explain.



Figure 1



Figure 2



Figure 3

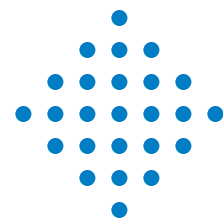


Figure 4