Practice 1.9: Domain and Range A

Use what you know about functions, domain, and range to answer each question.

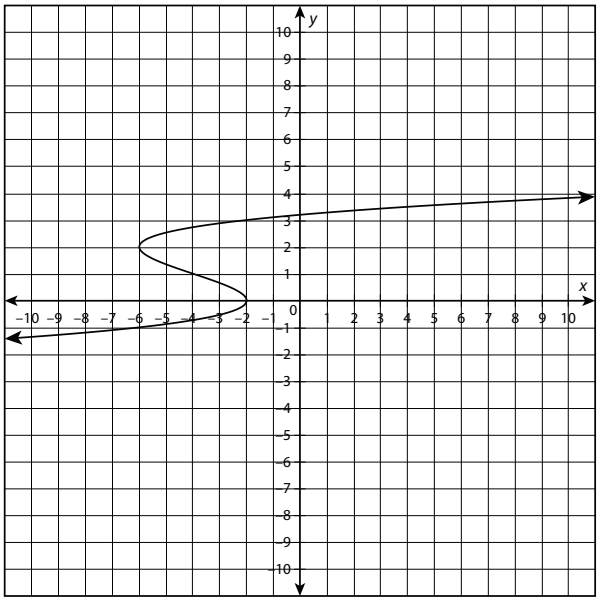
1. Could the following table represent a function? Why or why not?

x	*y*
1	7
2	6
3	5
4	4
5	3
6	2

2. Could the following table represent a function? Why or why not?

x	*y*
0	1
2	3
4	5
6	7
8	9
10	1

3. Could the following graph be a function? Why or why not?



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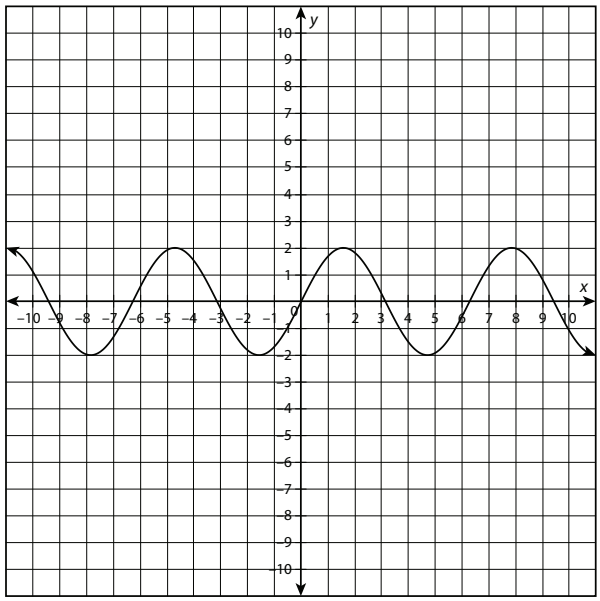
4. Could the following graph be a function? Why or why not?



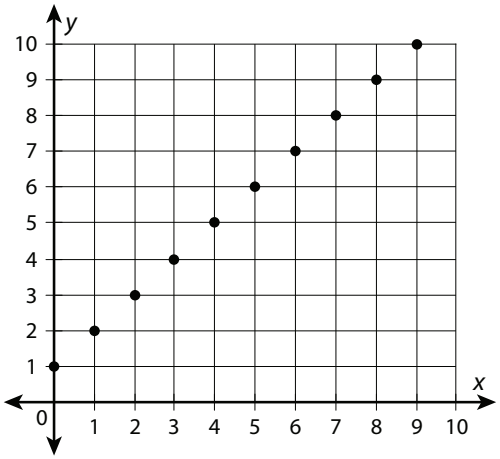
5. Does the following set of ordered pairs make up a relation? If so, is the relation also a function? Why or why not?

   {(2, 4), (3, 6), (4, 8), (5, 10), (6, 12), (7, 14)}

6. Does the following set of ordered pairs make up a relation? If so, is the relation also a function? Why or why not?

   {(2, 2), (3, 3), (4, 4), (5, 5), (5, 6), (7, 7)}

7. What are the domain and range of the graphed function?



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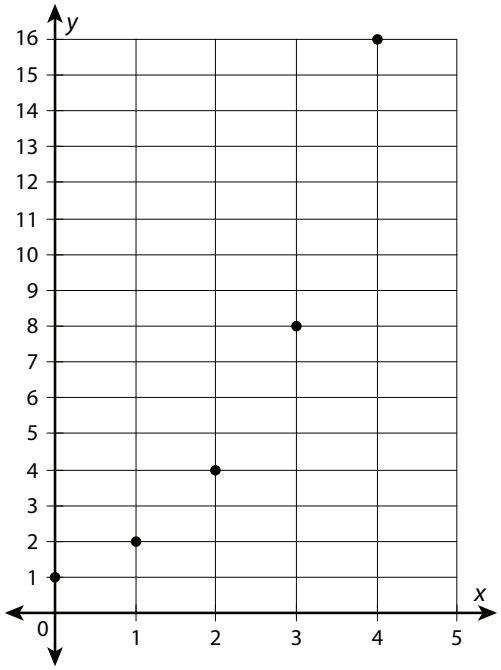
8. What are the domain and range of the graphed function?



9. A candle burns down at a rate of 1 inch per hour. The candle was originally 12 inches tall. The function that describes the height of the candle as it burns can be represented as $f(x) = -x + 12$, where x represents the number of hours the candle burns and $f(x)$ is the height of the candle. Draw a graph of the function. What are the domain and range?

10. The distance a trucker travels on the highway at 65 mph can be modeled by the function $f(x) = 65x$, where x is the time in hours and $f(x)$ is the distance in miles. What are the domain and range of the function?