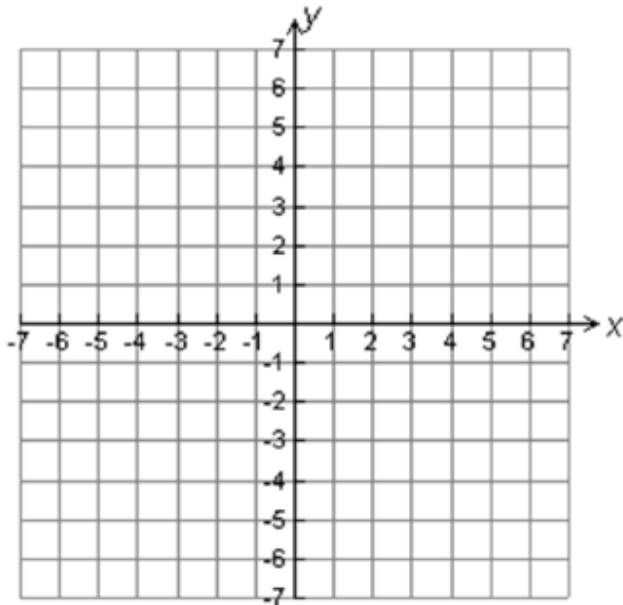


1. Graph the given set of points, then answer the questions that follow.

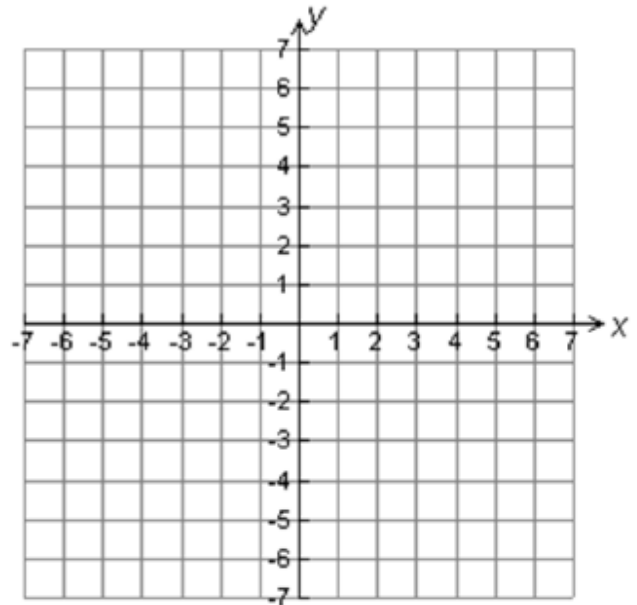
$$\{(5, -2), (-3, -2), (0, -2), (-2, -2)\}$$



- Identify the domain.
- Identify the range.
- Is the relation a function? Explain.
- Is it continuous or discrete? Explain.

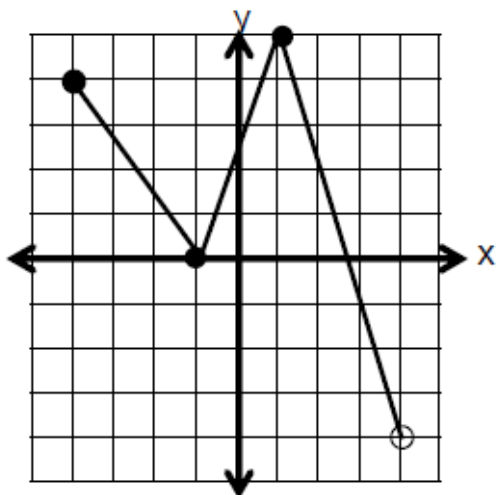
2. Graph the given set of points, then answer the questions that follow.

$$\{(0, 5), (2, -5), (2, 5), (4, -5), (4, 5)\}$$



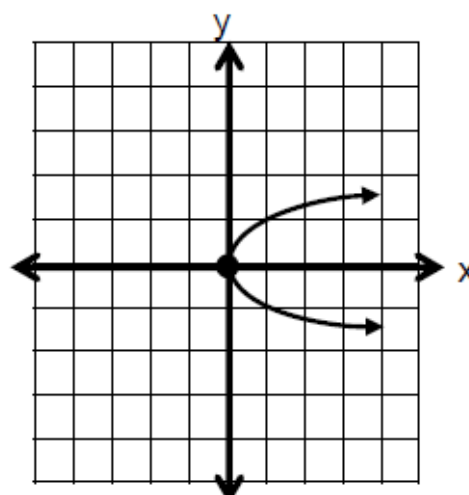
- Identify the domain.
- Identify the range.
- Is the relation a function? Explain.
- Is it continuous or discrete? Explain.

3. Provide information about the relation graphed below.



- Identify the domain.
- Identify the range.
- Is it continuous or discrete? Explain.
- Is the relation a function? Explain.
- If it is a function, tell the intervals where it is increasing and decreasing.

4. Provide information about the relation graphed below.



- Identify the domain.
- Identify the range.
- Is it continuous or discrete? Explain.
- Is the relation a function? Explain.
- If it is a function, tell the intervals where it is increasing and decreasing.

If  $f(x) = 5x - 3$ , and  $g(x) = x^2 + x - 2$ , evaluate the following.

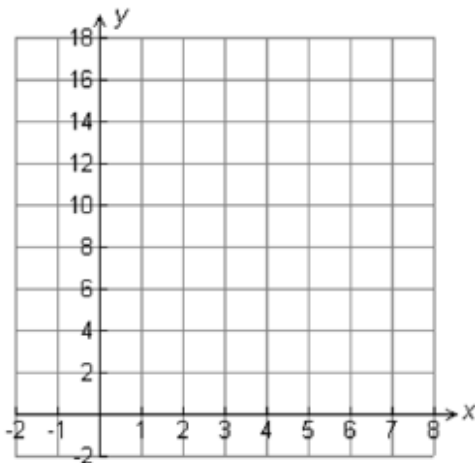
7.  $f(4)$

8.  $g(-2)$

5. For the given equation, develop a table of values to produce a graph. Then answer the questions that follow.

$$y = 8\left(\frac{1}{2}\right)^x$$

x	y
-1	
0	
1	
2	
3	
4	
5	
6	

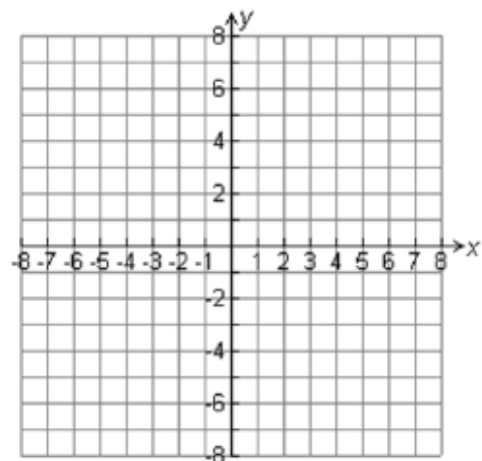


- Identify the domain and range.
- Identify the intervals where the function is increasing or decreasing.
- Is it continuous or discrete? Explain.
- Identify the parent function.

6. For the given equation, develop a table of values to produce a graph. Then answer the questions that follow.

$$y = \frac{12}{x}$$

x	Y
-6	
-4	
-3	
-2	
0	
2	
3	
4	
6	



- Identify the domain and range.
- Identify the intervals where the function is increasing or decreasing.
- Is it continuous or discrete? Explain.
- Identify the parent function.

If  $f(x) = 5x - 3$ , and  $g(x) = x^2 + x - 2$ , evaluate the following.

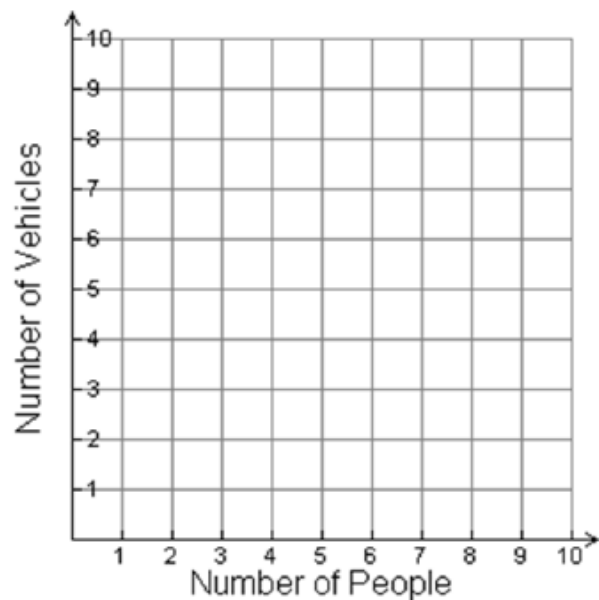
9.  $f\left(\frac{3}{5}\right)$

10.  $g(a - 1)$

11. A survey was taken to collect data on the vehicles per household as related to the number of persons in the household. The data were collected in the table below.

Number of People	2	3	6	5	4	3	1	2	4	5
Number of Vehicles	3	6	2	3	7	3	1	1	2	2

Use the data to create a scatter plot.



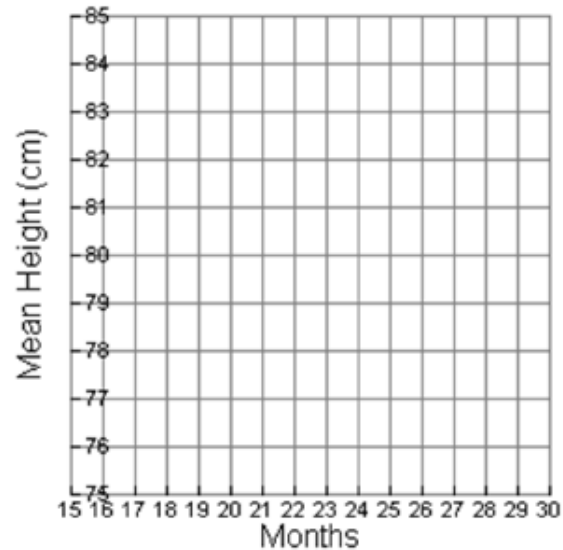
Does the data describe a functional relationship? Explain.

Is the data discrete or continuous?

Could the data be used to make predictions? Explain your reasoning.

12. The following data comparing the mean height of children in relation to their age was collected in Kalama, Egypt. Plot the data, and then answer the questions that follow.

Age (months)	Mean Height (cm)
18	76.1
19	77.0
20	78.1
21	78.2
22	78.8
23	79.7
24	79.9
25	81.1
26	81.2
27	81.8
28	82.8
29	83.5



- Is the relationship a function? Explain.
- If it is a function, identify increasing or decreasing intervals.
- Write a sentence to describe the domain and range of the problem situation.
- Predict the mean height of a 21.5 month-old baby. Explain your reasoning.
- Could you predict the height of a 21 year-old adult? Explain your reasoning.