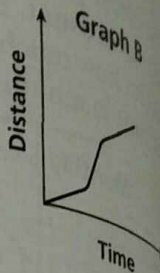
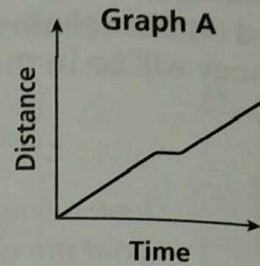


Choose the graph that best represents each situation. **graph A**

1. A person walks leisurely, stops, and then continues walking.
2. A person jogs, then runs, and then jogs again. **graph B**

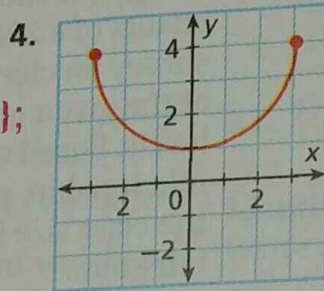


Give the domain and range for each relation.  
Tell whether the relation is a function. Explain.

3.

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

**D:  $\{-2, 1, 0, 3\}$ ;  
R:  $\{-1, 0, 1, 2, 3\}$ ;  
not a function;  
the x-value 1 is  
assigned to the  
y-value 2 and the  
y-value 0.**



**D:  $-3 \leq x \leq 3$ ;  
R:  $1 \leq y \leq 4$ ; function;  
each element in the  
domain is assigned to  
exactly one element in  
the range.**

5. Bowling costs \$3 per game plus \$2.50 for shoe rental. Identify the independent and dependent variables. Write a rule in function notation for the situation.

**independent variable: games played; dependent variable: total cost;  $f(x) = 3x + 2.50$**

Evaluate each function for the given input values.

6. For  $f(x) = -3x + 4$ , find  $f(x)$  when  $x = -2$ . **10**

7. For  $f(x) = 2x^2$ , find  $f(x)$  when  $x = -3$ . **18**

Graph each equation. Then tell whether the equation represents a function.

8.  $y = x - 5$  **yes**

9.  $y = x^2 - 5$  **yes**

10.  $y = |x| + 3$  **yes**

The table shows possible recommendations for the number of hours of sleep that children should get every day.

Age (yr)	1	2	3	4	5	14
Sleep Needed (h)	14	13	12	12	11	9

11. Graph a scatter plot of the given data.
12. Describe the correlation illustrated by the scatter plot.
13. Predict how many hours of sleep are recommended for a 16-year-old. **Possible answer: 7 h**

Determine whether each sequence...