Name _____ Date _____

3.1 Practice A & B

In Exercises 1 and 2, determine whether the relation is a function. Explain.

1.

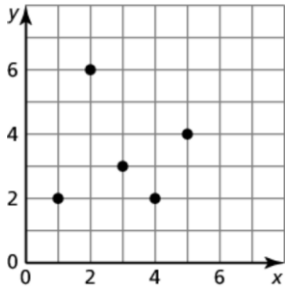
Input, *x*	8	4	2	4	8
Output, *y*	−4	−2	0	2	4

2.

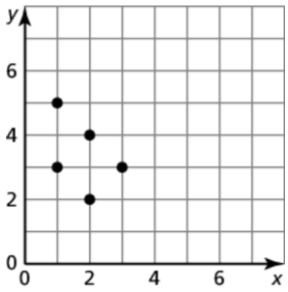
Input, *x*	0	2	4	6	8
Output, *y*	3	7	11	15	19

In Exercises 3 and 4, determine whether the graph represents a function. Explain.

3.

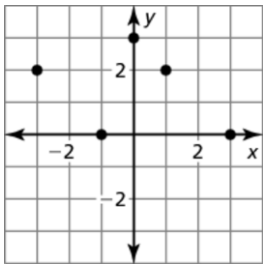


4.



In Exercises 5 and 6, find the domain and range of the function represented by the graph.

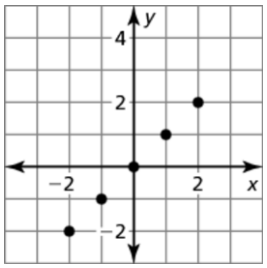
5.



Domain:

Range:

6.



Domain:

Range:

7. The function $y = 7x + 35$ represents the monthly cost y (in dollars) of a group of x members joining the fitness club.

a. Identify the independent and dependent variables.

Independent: _____

Dependent: _____

b. Your group has enough money for up to six members to join the fitness club. Find the domain and range of the function.

Domain: _____ Range: _____

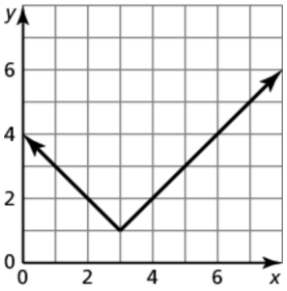
In Exercises 8 and 9, determine whether the statement uses the word *function* in a way that is mathematically correct. Explain your reasoning.

8. A function pairs each teacher with 30 students.

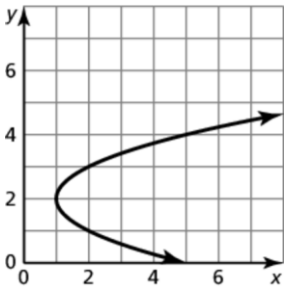
9. The cost of mailing the package is a function of the weight of the package.

In Exercises 10 and 11, determine whether the graph represents a function. Explain.

10.

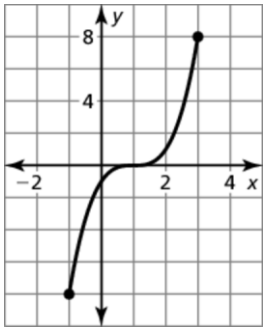


11.



In Exercises 12 and 13, find the domain and range of the function represented by the graph.

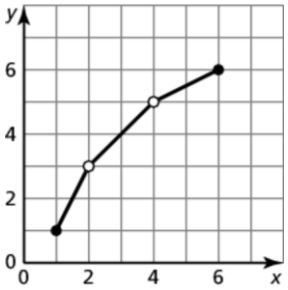
12.



Domain:

Range:

13.



Domain:

Range:

14. The function $2x + 1.5y = 18$ represents the number of book raffle tickets x and food raffle tickets y you buy at a club event.

a. Solve the equation for y.

b. Make an input-output table to find ordered pairs for the function.

c. Plot the ordered pairs in a coordinate plane.