

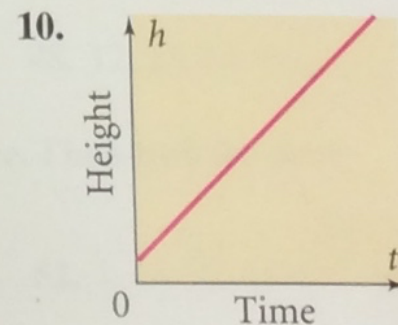
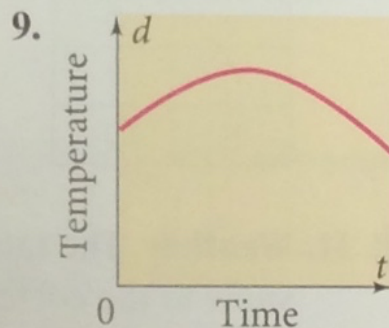
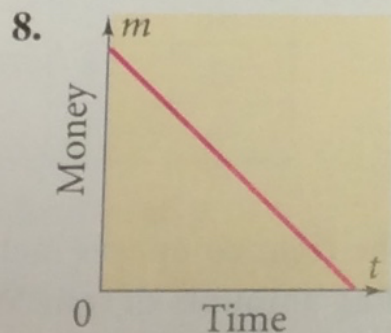
Skills and Concepts

5-1 Objective

▼ To interpret, sketch, and analyze graphs from situations (p. 236)

A graph shows a visual representation of the relationship between two sets of data.

Describe a situation for each graph.



Sketch a graph of each situation. Label each section.

11. the height of a sunflower over a summer
12. the number of customers in a restaurant each hour of one day
13. the number of vehicles that enter a school parking lot during one day
14. the number of bags of peanuts sold during a 2-hour baseball game

5-2 Objectives

- ▼ To identify relations and functions (p. 241)
- ▼ To evaluate functions (p. 243)

A **relation** is a set of ordered pairs. The **domain** of a relation is the set of first coordinates of the ordered pairs. The **range** is the set of second coordinates.

A **function** is a relation that assigns exactly one value in the range to each value in the domain. A **function rule** is an equation that describes a function. A function is in **function notation** when it uses $f(x)$ for the outputs.

Find the range of each function when the domain is $\{-4, 0, 1, 5\}$.

15. $y = 4x - 7$ 16. $m = 0.5n + 3$ 17. $p = q^2 + 1$ 18. $w = 5 - 3z$

Determine whether each relation is a function.

19.

x	y
0	1
1	2
2	3
1	4

20.

x	y
0	-2
2	0
-2	-4
4	2

21.

x	y
2	-3
-1	-3
0	-3
5	-3

22. Use the vertical-line test to determine if the graph at the right is a function.

23. **Writing** When is a relation also a function?

