Chapter 1: Function Sense   Activity 1.1

Learning Objectives

1. Identify the input and output in situations involving two variable quantities.
2. Identify a functional relationship between two variables.
3. Identify the independent and dependent variables.
4. Use a table to numerically represent a functional relationship between two variables .
5. Write a function using function notation...

Key Terms

Use the vocabulary terms listed below to complete each statement.

variable   function   independent   dependent   ordered pair

1. A(n) _____ of numbers consists of two numbers written in the form (input, output).

2. If the relationship between two variables is a function, the output variable is called the _____ variable.

3. A(n) _____ , usually represented by a letter, is a quality that may change in value from one particular instance to the other.

4. If the relationship between two variables is a function, the output variable is called the _____ variable.

5. A(n) _____ is a correspondence between an input variable and an output variable that assigns a single output value to each input value .

Practice Exercises

For#6-9, use the function y = h(x)

6. Determine the input.

7. Determine output.

8. Determine function name.

9. Write in words the equation the way you would say it.

For#10-13, use the function g(7) = 6.931

10. Determine the input.

11. Determine output.

12. Determine function name.

13. Write in words the equation the way you would say it.

For#14-17, use the function 792 = f(t)

14. Determine the input.

15. Determine output.

16. Determine function name.

17. Write in words the equation the way you would say it.

For#18-21, use the function salary = *s*(hours)

18. Determine the input.

19. Determine output.

20. Determine function name.

21. Write in words the equation the way you would say it.

For#22-23, the input of a function C *is the price. The output is commission.*

22. Write the function.

23. Write C(6000 = 2) as an ordered pair.

For#24-25, use the pairs (3, 6), (-4, 11), (16, 0), and (4, 8).

24. Do the ordered pairs represent a function?

25. Explain your answer to # 24 (why or why not).

For#26-27, use the pairs (2, 7), (3, 8), (2, 9), and (4, 3).

26. Do the ordered pairs represent a function?

27. Explain your answer to # 24 (why or why not).

28. For (9, 8), (9, 6) , and (9, 11), explain why these pairs do not represent a function.

Concept Connections

1. Suppose that an input is the number of hours you worked at a job. Give an example of an output for this function.

2. You and three friends work at a job and each of you receive a different hourly wage, based on experience. Does this scenario, where the input is the number of hours worked and the output is the wages received, describe a function? Why or why not?