

Section 1.3 Functions

Objective: In this lesson you learned how to evaluate functions and find their domains.

Course Number

Instructor

Date

Important Vocabulary

Define each term or concept.

Function

Domain

Range

Independent variable

Dependent variable

I. Introduction to Functions (Pages 92–94)

A rule of correspondence that pairs items from one set with items from a different set is a _____.

In functions that can be represented by ordered pairs, the first coordinate in each ordered pair is the _____ and the second coordinate is the _____.

Some characteristics of functions are . . .

- 1)
- 2)
- 3)

To decide whether a relation is a function, . . .

If any input value of relation is matched with two or more output values, . . .

What you should learn

How to decide whether relations between two variables are functions

Some common ways to represent functions are . . .

- 1)
- 2)
- 3)
- 4)

Example 1: Decide whether the table represents y as a function of x .

x	-3	-1	0	2	4
y	5	-12	5	3	14

II. Function Notation (Pages 94–95)

The symbol _____ is **function notation** for the value of f at x or f of x , used to describe y as a function of x . In this case, _____ is the name of the function and _____ is the value of the function at x .

What you should learn
How to use function notation and evaluate functions

Example 2: If $f(w) = 4w^3 - 5w^2 - 7w + 13$, describe how to find $f(-2)$.

A piecewise-defined function is . . .

III. The Domain of a Function (Page 96)

If x is in the domain of f , then f is said to be _____ at x .

If x is not in the domain of f , then f is said to be _____ at x .

What you should learn
How to find the domains of functions

The **implied domain** of a function defined by an algebraic expression is . . .

For example, the implied domain of the function $f(x) = \sqrt{5x - 8}$ is . . .

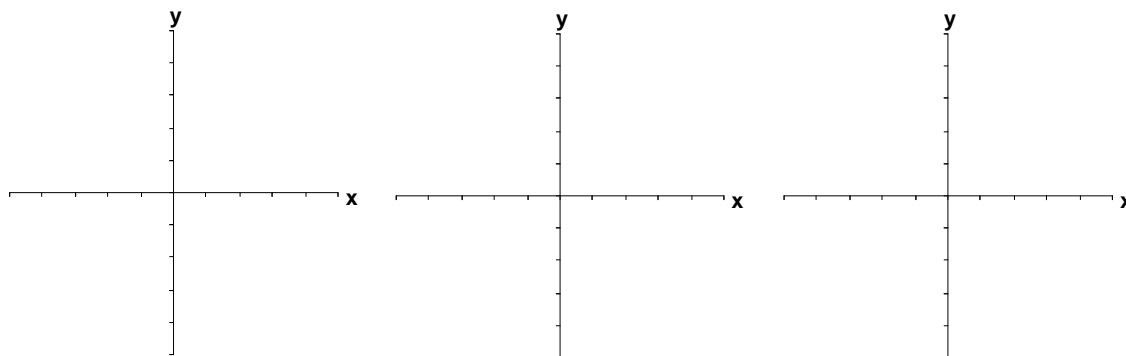
IV. Applications of Functions (Pages 97–99)

A **difference quotient** is defined as . . .

What you should learn
How to use functions to model and solve real-life problems

Describe a real-life situation which can be represented by a function.

Additional notes



Additional notes**Homework Assignment**

Page(s)

Exercises