

Section 2.2 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 187–189)

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 a function from set A to set B are . . .

- 1)
- 2)
- 3)

Some common ways to represent functions are . . .

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

What you should learn

How to determine whether relations between two variables are functions

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

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

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 189–190)

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 191)

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

What you should learn

How to find the domains of functions

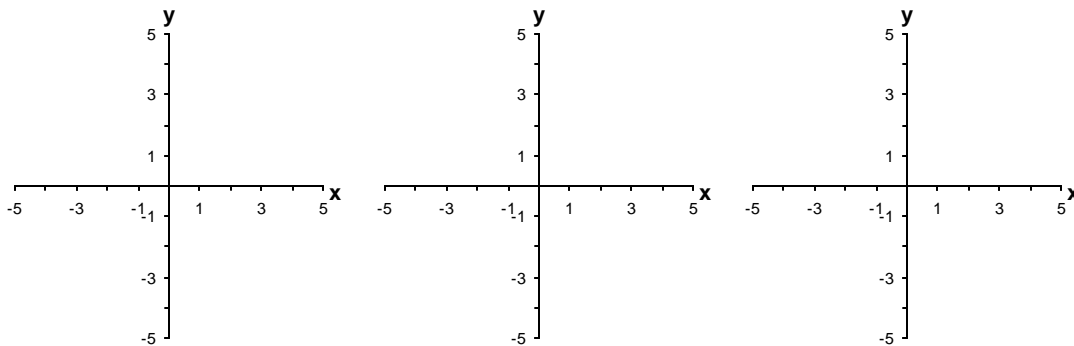
For example, the implied domain of the function $f(x) = \sqrt{5x - 8}$ is . . .

IV. Applications of Functions (Pages 192–194)

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**Homework Assignment**

Page(s)

Exercises

