

Section 1.6 Other Types of Equations

Objective: In this lesson you learned how to solve polynomial equations, radical equations, and absolute value equations.

Course Number

Instructor

Date

Important Vocabulary

Define each term or concept.

Polynomial equation

I. Polynomial Equations (Pages 131–132)

One approach to solving nonquadratic polynomial equations is to . . .

What you should learn
How to solve polynomial equations of degree three or greater

Example 1: Describe a strategy for solving the polynomial equation $x^3 + 2x^2 - x = 2$. Then find the solutions.

An equation is of quadratic type if . . .

Example 2: Solve the equation of quadratic type:

$$x^4 - 4x^2 - 45 = 0$$

II. Equations Involving Radicals (Page 133)

A(n) _____ is a solution to an equation that does not satisfy the original equation.

What you should learn
How to solve equations involving radicals

Operations that can introduce extraneous solutions include, . . .

If any of these operations is performed while solving an equation, . . .

Example 3: Describe a strategy for solving the following equation involving a radical expression:

$$\sqrt{8-x} - 15 = 0$$

III. Equations with Fractions or Absolute Values

(Pages 134–135)

To solve an equation involving fractions, . . .

What you should learn

How to solve equations involving fractions or absolute values

Example 4: Solve: $\frac{2}{x} - 1 = \frac{1}{x+1}$

To solve an equation involving an absolute value, . . .

Example 5: Write the two equations that must be solved to solve the absolute value equation $|3x^2 + 2x| - 5 = 0$.

Homework Assignment

Page(s)

Exercises