Course Number

Instructor

Date

Section P.5 Rational Expressions

Objective: In this lesson you learned how to determine the domains of algebraic expressions and simplify rational expressions.

Important Vocabulary Define each term or concept.

Domain

Equivalent

Rational expression

Complex fractions

I. Domain of an Algebraic Expression (Page 42)

What you should learn
How to find domains of algebraic expressions

The domain of any polynomial function is . . .

The domain of a square root expression excludes . . .

The domain of a rational expression excludes . . .

A fraction is in simplest form if . . .

II. Simplifying Rational Expressions (Page 43)

What you should learn
How to simplify rational expressions

To simplify a rational expression, . . .

To make sure that the simplified expression is equivalent to the original rational expression, you must . . .

Example 1: Write the rational expression in simplest form.

$$\frac{x^2 + 3x - 28}{2x + 14}$$

III. Operations with Rational Expressions (Pages 44–45)

What you should learn
How to add, subtract, multiply, and divide rational expressions

To divide two rational expressions . . .

When multiplying rational expressions, you must list by the product all the values of the variable that . . .

To add or subtract rational expressions, . . .

Example 2: Perform the operation and simplify: $\frac{4w}{w+1}+\frac{w+1}{w-1}$

IV. Complex Fractions (Pages 46–48)

What you should learn
How to simplify complex fractions

To simplify a complex fraction, . . .

To simplify a rational expression involving negative exponents, . . .

Homework Assignment

Page(s)

Exercises