Course Number

Instructor

Date

Section P.4 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 37)

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 . . .

II. Simplifying Rational Expressions (Pages 37–38)

What you should learn
How to simplify rational expressions

A fraction is in simplest form if . . .

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 39–40)

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

To divide two rational expressions . . .

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 41–43)

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