

Place a checkmark or the date when items are completed. For tests, record the score if preferred.

Lesson	Explore	Practice 1	Mastery Check	Practice 2	Targeted Review	Lesson Test
1 Linear Programming						
2 Systems of Equations with Three Variables						
3 Operations with Polynomials						
4 Polynomial Identities						
5 Polynomial Long Division						
6 Synthetic Division						

Lesson Objectives

Check each objective that the student has mastered.

Lesson 1

- ☐ Determine the optimization, minimum or maximum, for a linear programming graph using the objective function.
- ☐ Given a system of linear inequalities, create a graph and use the objective function to optimize.
- ☐ Apply linear programming to word problems

Lesson 3

- ☐ Determine if an expression represents a polynomial.
- ☐ Add, subtract, and multiply to simplify polynomial expressions.
- ☐ Factor polynomial expressions.
- ☐ Factor the sum and difference of cubes.

Lesson 5

- ☐ Simplify expressions by dividing a polynomial by a monomial.
- ☐ Use long division to divide polynomials.
- ☐ Write the remainder of a polynomial expression as a rational expression.

Lesson 2

- ☐ Determine if given values represent a solution to a system of equations with three variables.
- ☐ Solve a system of linear equations with three variables.
- ☐ Write a system of linear equations with three variables.
- ☐ Evaluate word problems for linear equations with three variables.

Lesson 4

- ☐ Determine if a polynomial identity exists.
- ☐ Determine the value of an unknown to make a polynomial expression or equation true.

Lesson 6

- ☐ Use synthetic division with polynomial expressions.
- ☐ Evaluate polynomials using synthetic substitution.
- ☐ Use the Remainder Theorem to prove polynomial division is correct.

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Lesson	Explore	Practice 1	Mastery Check	Practice 2	Targeted Review	Lesson Test
7 Multiplying and Dividing Rational Expressions						
8 Adding and Subtracting Rational Expressions						
9 Solving Rational Equations						
10 Graphing Reciprocal Functions						

Unit 1 Test

Date: _____

Score: _____

Lesson Objectives

Check each objective that the student has mastered.

Lesson 7

- ☐ Name restrictions for a denominator.
- ☐ Simplify the product or quotient of rational expressions.

Lesson 9

- ☐ Determine the excluded values for the rational equation.
- ☐ Solve rational equations that are proportions.
- ☐ Solve rational equations by finding the least common denominator (LCD).
- ☐ Apply rational equations to word problems.

Lesson 8

- ☐ Determine the least common denominator (LCD) of a rational expression.
- ☐ Add and subtract rational expressions.
- ☐ Simplify complex fractions using addition, subtraction, multiplication, and division.
- ☐ Apply rational expressions to word problems such as geometric probabilities and efficiency ratios.

Lesson 10

- ☐ Determine the vertical and horizontal asymptotes for a rational function.
- ☐ Determine the transformations of a graph from the rational parent function.
- ☐ Graph/sketch a rational function in the form of:

$$y = \frac{a}{x - h} + k$$
- ☐ State the domain and range for a rational function.