

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
11 d^{th} -degree Radical Expressions under the Set of Reals						
12 Radical Expressions with More Than One Operation						
13 Solving Radical Equations						
14 Solving and Graphing Radical Inequalities						
15 Complex Numbers and the Imaginary Unit						
16 Working with Complex Numbers						

Lesson Objectives

Check each objective that the student has mastered.

Lesson 11

- ☐ Simplify d^{th} -degree radical expressions.
- ☐ Simplify expressions with rational exponents.

Lesson 13

- ☐ Solve a radical equation.
- ☐ Solve a radical equation written with rational (fractional) exponents.
- ☐ Determine if there are any extraneous solutions to a radical equation.

Lesson 15

- ☐ Classify complex numbers (real, imaginary, complex).
- ☐ Define the imaginary unit as $i^2 = -1$.
- ☐ Simplify roots of negative numbers using the imaginary unit.
- ☐ Simplify powers of the imaginary unit.

Lesson 12

- ☐ Rationalize the denominator of a radical expression.
- ☐ Determine the conjugate of a given expression.
- ☐ Use conjugates to simplify radicals with a binomial in the denominator.
- ☐ Simplify radical expressions using more than one operation.

Lesson 14

- ☐ Solve for the values that make the principal root true. (Name the restrictions on the radicand.)
- ☐ Solve a radical inequality.
- ☐ Graph the solution to a radical inequality on a number line.

Lesson 16

- ☐ Simplify expressions with complex numbers in the form of $a + bi$, where a and b are real numbers, using addition, subtraction, and multiplication.
- ☐ Solve identities with complex numbers.
- ☐ Rationalize the denominator with complex conjugates.

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Lesson	Explore	Practice 1	Mastery Check	Practice 2	Targeted Review	Lesson Test
17 Parent Functions						
18 Transforming Parent Functions						
19 Finding Inverses Algebraically						
20 Graphing Functions and Their Inverses						
21 Piecewise Functions						
22 Inequality Graphs						

Unit 2 Test

Date: _____

Score: _____

Lesson Objectives

Check each objective that the student has mastered.

Lesson 17

- ☐ Name a parent function given the graph or equation: linear, absolute value, square root, cube root, quadratic, cubic, reciprocal.
- ☐ Name the domain and range of parent functions.
- ☐ Graph/Sketch a parent function given the equation: linear, absolute value, square root, cube root, quadratic, cubic, reciprocal.
- ☐ Describe the end behavior of parent functions.

Lesson 19

- ☐ Determine if functions are inverses of one another algebraically.
- ☐ Find the inverse of a simple function algebraically.

Lesson 21

- ☐ Graph piecewise functions, including scenarios, over the given intervals.
- ☐ Write piecewise functions with intervals given a graph.
- ☐ Find the rate of change over a specified interval.

Lesson 18

- ☐ Transform parent functions (vertical, horizontal, dilation) on the coordinate plane.
- ☐ Write the equation of the transformed function given the graph or description.
- ☐ Name the domain and range of transformed parent functions.
- ☐ Name the end behavior of transformed parent functions.
- ☐ Describe how a parent function is being transformed without graphing.

Lesson 20

- ☐ Graph a function and its inverse on the same coordinate plane and determine if they are functions.
- ☐ Use the horizontal line test to determine if the graph of an inverse is a function.
- ☐ State the domain and range for a rational function.

Lesson 22

- ☐ Graph inequalities on the coordinate plane (absolute value, radical, linear, quadratic).
- ☐ Write an inequality given a graph.
- ☐ Determine the solutions for the graph of an inequality.