

**Unit 3 Vocabulary: Define the following words.**

- **Algebra:**
- **Coefficient:**
- **Equation**
- **Expression:**
- **Extraneous Solutions:**
- **Inequality:**
- **Polynomial:**
- **Radical Function:**
- **Rational Function:**
- **Reciprocal:**
- **Variable:**

### **Unit 3 Vocabulary: Answers**

- **Algebra:** The branch of mathematics that deals with relationships between numbers, utilizing letters and other symbols to represent specific sets of numbers, or to describe a pattern of relationships between numbers.
- **Coefficient:** A number multiplied by a variable.
- **Equation:** A number sentence that contains an equality symbol.
- **Expression:** A mathematical phrase involving at least one variable and sometimes numbers and operation symbols.
- **Extraneous Solutions:** A solution of the simplified form of the equation that does not satisfy the original equation.
- **Inequality:** Any mathematical sentence that contains the symbols  $>$  (greater than),  $<$  (less than),  $\leq$  (less than or equal to), or  $\geq$  (greater than or equal to).
- **Polynomial:** A mathematical expression involving the sum of terms made up of variables to nonnegative integer powers and real-valued coefficients.
- **Radical Function:** A function containing a root. The most common radical functions are the square root and cube root functions,  $f(x)=\sqrt{x}$  and  $g(x)=\sqrt[3]{x}$ .
- **Rational Function:** The quotient of two polynomials,  $P(z)$  and  $Q(z)$ , where  $R(z)=\frac{P(z)}{Q(z)}$
- **Reciprocal:** Two numbers whose product is one. For example,  $m \times \frac{1}{m} = 1$
- **Variable:** A letter or symbol used to represent a number.