

## **Foundations of Algebra**

Can you...

- ☐ Write mathematical expressions for verbal expressions?
- ☐ Write verbal expressions for mathematical expressions?
- ☐ Evaluate numerical and algebraic expressions by using the order of operations?
- ☐ Use the distributive property to evaluate and/or simplify algebraic expressions?
- ☐ Recognize and use the commutative and associative properties to simplify algebraic expressions?
- ☐ Classify and graph real numbers?
- ☐ Find square roots and order real numbers?

## **Solving Equations**

Can you...

- ☐ Translate verbal sentences into equations?
- ☐ Translate equations into verbal sentences?
- ☐ Solve equations using addition and subtraction?
- ☐ Solve equations using multiplication and division?
- ☐ Solve equations involving more than one operation?
- ☐ Solve consecutive integer problems?
- ☐ Solve equations with the variable on each side?
- ☐ Solve equations involving grouping symbols?
- ☐ Determine whether two ratios form a proportion?
- ☐ Solve proportions?
- ☐ Solve equations for given variables?

## **Inequalities**

Can you...

- ☐ Solve and graph inequalities using addition and subtraction?
- ☐ Solve and graph inequalities using multiplication and division?
- ☐ Solve and graph compound inequalities?

## **Functions and Relations**

Can you...

- ☐ Represent relations as sets of ordered pairs, tables, mappings, and graphs?
- ☐ Find the inverse of a relation?
- ☐ Determine whether a relation is a function?
- ☐ Find functional values?  $f(x)$

## **Graphing Linear Equations**

Can you...

- ☐ Identify linear equations, intercepts and zeros?
- ☐ Graph linear equations?
- ☐ Recognize arithmetic sequences?
- ☐ Extend and write formulas for arithmetic sequences?
- ☐ Use rate of change to solve problems?
- ☐ Find the slope of the line?
- ☐ Write and graph linear equations in slope-intercept form?
- ☐ Write an equation of a line given the slope and one point on a line?
- ☐ Write an equation of a line given two points on the line?
- ☐ Write the equation of a line in point-slope form?
- ☐ Write linear equations in different forms?
- ☐ Interpret points on a scatter plot?
- ☐ Use lines of fit to make and evaluate predictions?

## **Systems of Equations**

Can you...

- ☐ Write an equation of the line that passes through a given point, parallel to a given line?
- ☐ Write an equation of the line that passes through a given point, perpendicular to a given line?
- ☐ Determine whether a system of linear equations has no, one, or infinitely many solutions?
- ☐ Solve systems of equations by graphing?
- ☐ Solve systems of equations by using substitution?
- ☐ Solve systems of equations by using elimination?
- ☐ Solve systems of equations by using elimination with multiplication?
- ☐ Determine the best method for solving systems of equations?
- ☐ Solve real-world problems involving systems of equations?

## **Absolute Value and Graphing Inequalities**

Can you...

- ☐ Solve absolute value equations?
- ☐ Solve and graph absolute value inequalities?
- ☐ Graph inequalities in two variables?
- ☐ Graph a system of inequalities in two variables?
- ☐ Determine the solution set of a system of inequalities?