# Math Assessed Indicators
# 8th Grade

| Assessed indicator | Description |
|---|---|
| 1.1.K5 | ▲ knows and explains what happens to the product or quotient when (2.4.K1a):a. a positive number is multiplied or divided by a rational number greater than zero and less than one b. a positive number is multiplied or divided by a rational number greater than one c. a nonzero real number is multiplied or divided by zero, (For purposes of assessment, an explanation of division by zero will not be expected.) |
| 1.2.A1 | generates and/or solves real-world problems with rational numbers using the concepts of these properties to explain reasoning (2.4.A1a) ($) a. ▲ commutative, associative, distributive, and substitution properties; b. ▲ identity and inverse properties of addition and multiplication: |
| 1.2.K2 | ▲ identifies all the subsets of the real number system [natural (counting) numbers, whole numbers, integers, rational numbers, irrational numbers] to which a given number belongs (2.4.K1l). |
| 1.4.A1 | ▲ generates and/or solves one- and two-step real-world problems using computational procedures and mathematical concepts (2.4.A1a) with ($): a. ■ rational numbers b. the irrational number pi as an approximation c. applications of percents |
| 1.4.K2 | performs and explains these computational procedures with rational numbers (2.4.K1a):a. ▲N addition, subtraction, multiplication, and division of integers b. ▲N order of operations (evaluates within grouping symbols, evaluates powers to the second or third power, multiplies or divides in order from left to right, then adds or subtracts in order from left to right); |
| 2.2.A1 | represents real-world problems using (2.4.A1d) ($):a. ▲ ■ variables, symbols, expressions, one- or two-step equations with rational number coefficients and constants, |
| 2.2.K3 | Solves: a. ▲ one- and two-step linear equations in one variable with rational number coefficients and constants intuitively and/or analytically; |
| 2.3.A3 | ▲ translates between the numerical, tabular, graphical, and symbolic representations of linear relationships with integer coefficients and constants (2.4.A1a), |
| 2.4.A2 | ▲ determines if a given graphical, algebraic, or geometric model is an accurate representation of a given real-world situation ($). |
| 3.1.A1 | solves real-world problems by (2.4.A1a): a. ▲ ■ using the properties of corresponding parts of similar and congruent figures, |
| 3.1.K6 | ▲ uses the Pythagorean theorem to (2.4.K1h):a. determine if a triangle is a right triangle, b. find a missing side of a right triangle where the lengths of all three sides are whole numbers. |
| 3.4.K1 | uses the coordinate plane to (2.4.K1a): a. ▲ list several ordered pairs on the graph of a line and find the slope of the line; b. ▲ recognize that ordered pairs that lie on the graph of an equation are solutions to that equation; c. ▲ recognize that points that do not lie on the graph of an equation are not solutions to that equation; d. ▲ determine the length of a side of a figure drawn on a coordinate plane with vertices having the same x- or y-coordinates; |
| 4.1.K3 | ▲ finds the probability of a compound event composed of two independent events in an experiment, simulation, or situation (2.4.K1j), |
| 4.1.A4 | makes predictions based on the theoretical probability of (2.4.A1a,i): a. ▲ ■ a simple event in an experiment or simulation, |
| 4.2.K3 | ▲ determines and explains the measures of central tendency (mode, median, mean) for a rational number data set (2.4.K1a). |