Mathematician \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Concepts on the Fifth Grade End of Grade Test for Math

The list below covers the concepts on the EOG for math. Order the concepts based on the following scale:

4: I have mastered this standard. Evidence includes level 3s and/or 4s on assessments of this standard.

3: I did well with this standard, but I need a brief review.

2: I still have questions on this standard and need additional practice.

1: I have not mastered this standard and would like another lesson on the concepts.

**Operations and Algebraic Thinking**

**Write and interpret numerical expressions.**

\_\_\_\_\_\_\_ Write, explain, and evaluate expressions using order of operations

\_\_\_\_\_\_\_ Write, explain, and evaluate expressions using commutative, associative, and distributive properties

**Analyze patterns and relationships.**

\_\_\_\_\_\_\_ Generate/create two numerical patterns using given rules

\_\_\_\_\_\_\_ Find patterns with ordered pairs

\_\_\_\_\_\_\_ Graph ordered pairs on a coordinate plane (first quadrant only)

**Numbers and Operations in Base Ten**

**Understand the place value system.**

\_\_\_\_\_\_\_ Explain that in a multi-digit number, a digit one place to the right represents 10 times as much and 1/10 of what is represents in the place to its left.

\_\_\_\_\_\_\_ Explain patterns in products (answers to multiplication problems) and quotients (answers to division problems) when numbers are multiplied by 1000, 100, 10, .1, .01 and/or divided by 10 and 100.

**Perform operations with multi-digit whole numbers.**

\_\_\_\_\_\_\_ Multiply whole numbers (up to a three digit number x two digit)

\_\_\_\_\_\_\_ Divide whole numbers (up to four-digit dividends and two digit divisors)

**Perform operations with decimals.**

\_\_\_\_\_\_\_ Addition of decimals

\_\_\_\_\_\_\_ Subtraction of decimals

\_\_\_\_\_\_\_ Multiplication of decimals

\_\_\_\_\_\_\_ Division of decimals

\_\_\_\_\_\_\_ Use models to solve decimal problems with addition, subtraction, multiplication, and division.

**Adding and Subtracting Fractions**

**Use equivalent fractions as a strategy to add and subtract fractions.**

\_\_\_\_\_\_\_ Add fractions and mixed numbers with unlike denominators

\_\_\_\_\_\_\_ Subtract fractions and mixed numbers with unlike denominators

\_\_\_\_\_\_\_ Determine if a solution to a fraction addition or subtraction problem is reasonable

\_\_\_\_\_\_\_ Use models to add fractions

\_\_\_\_\_\_\_ Use models to subtract fractions

\_\_\_\_\_\_\_ Use benchmark fractions to estimate sums (answers to addition problems) and differences (answers to subtraction problems)

\_\_\_\_\_\_\_ Convert mixed numbers to improper fractions

\_\_\_\_\_\_\_ Convert improper fractions to mixed numbers

**Multiplying Fractions**

**Apply and extend previous understandings of multiplication and division to multiply and divide decimals.**

\_\_\_\_\_\_\_ Multiply a fraction and a whole number

\_\_\_\_\_\_\_ Multiply a fraction and a mixed number

\_\_\_\_\_\_\_ Explain why multiplying a fraction by a number greater than 1 results in a product greater than the given number

\_\_\_\_\_\_\_ Solve word problems with fraction multiplication (knowing when to multiply)

\_\_\_\_\_\_\_ Find the area of a rectangle with fractional side lengths

\_\_\_\_\_\_\_ Use models to multiply fractions

**Dividing Fractions**

**Apply and extend previous understandings of multiplication and division to multiply and divide decimals.**

\_\_\_\_\_\_\_ Interpret a fraction as equal sharing (where a quantity/amount is divided into equal parts)

\_\_\_\_\_\_\_ Model a fraction as a division of the numerator by the denominator

\_\_\_\_\_\_\_ Divide whole numbers by unit fractions

\_\_\_\_\_\_\_ Divide unit fractions by whole numbers

\_\_\_\_\_\_\_ Solve word problems with fraction division

\_\_\_\_\_\_\_ Use models to divide fractions

**Measurement and Data**

**Covert like measurement units within a given measurement system.**

\_\_\_\_\_\_\_ When given a conversion chart, solve one-step conversion problems within the given measurement system

**Represent and interpret data.**

\_\_\_\_\_\_\_ Collect data by asking a question that yields (results in) data that changes over time

\_\_\_\_\_\_\_ Create and interpret line graphs

\_\_\_\_\_\_\_ Categorical versus numerical data

**Understand concepts of volume.**

\_\_\_\_\_\_\_ Find volume of a rectangular prisms by packing it with unit cubes and show that the volume is the same as length x width x height or B x h

\_\_\_\_\_\_\_ Understand and use the volume formula to solve volume problems

\_\_\_\_\_\_\_ Find the volume of composite figures (more than one rectangular prism)

**Geometry**

**Understand the coordinate plane.**

\_\_\_\_\_\_\_ Graph points in the first quadrant

\_\_\_\_\_\_\_ Identify and interpret x and y coordinates to solve problems

**Classify quadrilaterals.**

\_\_\_\_\_\_\_ Explain that attributes belonging to a category of quadrilaterals also belong to all subcategories of that category

\_\_\_\_\_\_\_ Classify two-dimensional figures on a hierarchy chart

The following chart was published by the Department of Public Instruction (DPI). It shows the percent of each standard that will be included on the End of Grade test.

