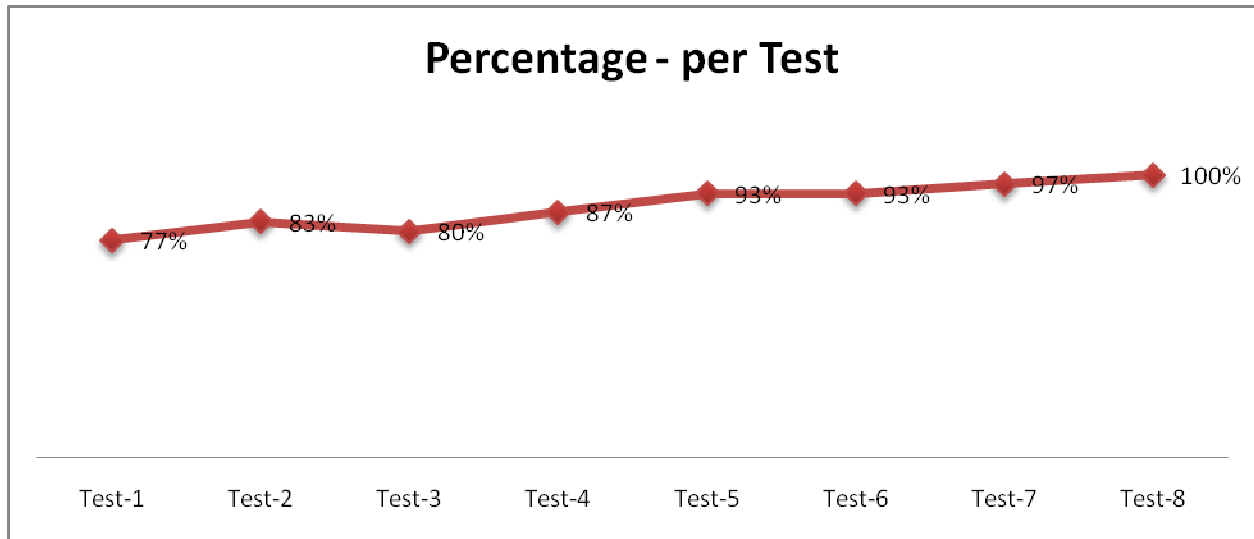
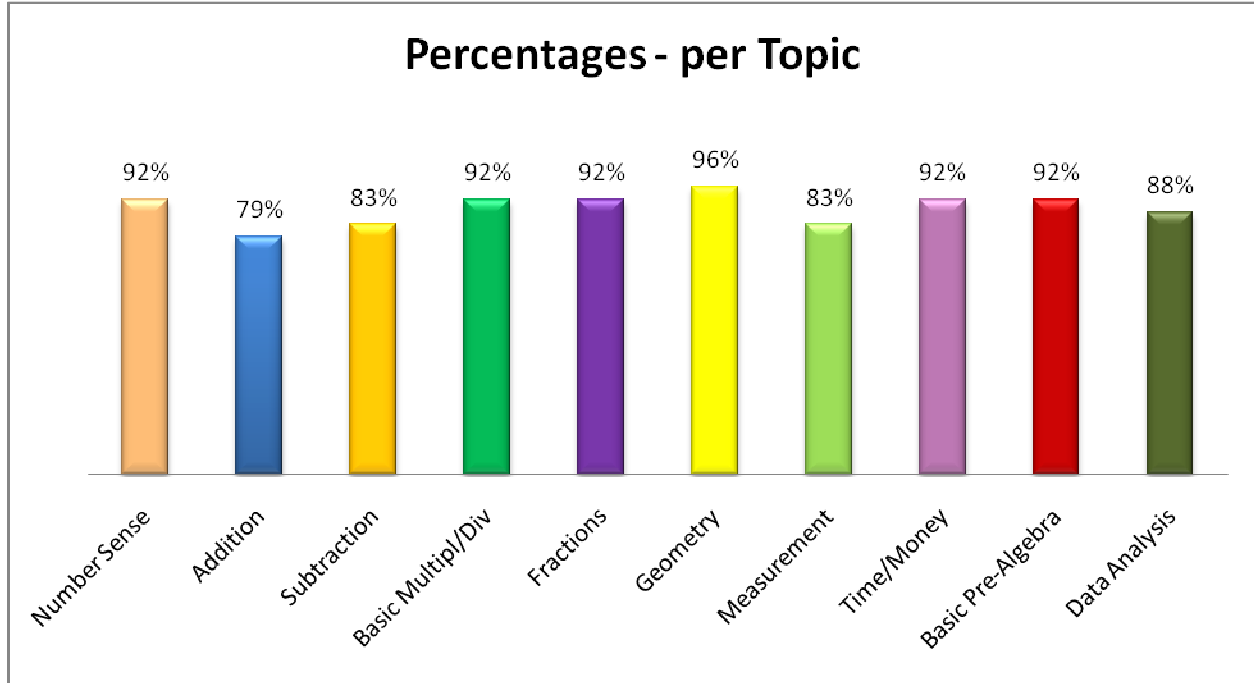


**Math Diagnostic Test Report for – Grade 2**



The following is the list of standards tested.

**1. Number Sense:** Students understand the relationship between numbers, quantities, and place value in whole numbers up to 1,000:

- 1.1 Count, read, and write whole numbers to 1,000 and identify the place value for each digit.
- 1.2 Use words, models, and expanded forms (e.g.,  $45 = 4 \text{ tens} + 5$ ) to represent numbers (to 1,000).
- 1.3 Order and compare whole numbers to 1,000 by using the symbols  $<$ ,  $=$ ,  $>$ .
- 1.4 Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, hundreds, and thousands places

**2. Addition:** Students estimate, calculate, and solve problems involving addition of two- and three-digit numbers:

- 2.1 Find the sum of two whole numbers up to three digits long.
- 2.2 Understand and use the inverse relationship between addition and subtraction (e.g., an opposite number sentence for  $8 + 6 = 14$  is  $14 - 6 = 8$ ) to solve problems and check solutions.

**3. Subtraction:** Students estimate, calculate, and solve problems involving subtraction of two- and three-digit numbers:

- 3.1 Find the difference of two whole numbers up to three digits long.
- 3.2 Understand and use the inverse relationship between addition and subtraction (e.g., an opposite number sentence for  $8 + 6 = 14$  is  $14 - 6 = 8$ ) to solve problems and check solutions.

**4. Basic Multiplication and Basic Division:** Students model and solve simple problems involving multiplication and division:

- 4.1 Use repeated addition, arrays, and counting by multiples to do multiplication.
- 4.2 Use repeated subtraction, equal sharing, and forming equal groups with remainders to do division.
- 4.3 Know the multiplication tables of 2s, 5s, and 10s (to “times 10”) and commit them to memory.

**5. Fractions:** Students understand that fractions and decimals may refer to parts of a set and parts of a whole:

- 5.1 Recognize, name, and compare unit fractions from  $1/12$  to  $1/2$ .
- 5.2 Recognize fractions of a whole and parts of a group (e.g., one-fourth of a pie, two-thirds of 15 balls).
- 5.3 Know that when all fractional parts are included, such as four-fourths, the result is equal to the whole and to one.

**6. Geometry:** Students identify and describe the attributes of common figures in the plane and of common objects in space:

- 6.1 Describe and classify plane and solid geometric shapes (e.g., circle, triangle, square, rectangle, sphere, pyramid, cube, rectangular prism) according to the number and shape of faces, edges, and vertices.
- 6.2 Put shapes together and take them apart to form other shapes (e.g., two congruent right triangles can be arranged to form a rectangle).

**7. Measurement:** Students understand that measurement is accomplished by identifying a unit of measure, iterating (repeating) that unit, and comparing it to the item to be measured:

- 7.1 Measure the length of objects by iterating (repeating) a nonstandard or standard unit.
- 7.2 Use different units to measure the same object and predict whether the measure will be greater or smaller when a different unit is used.
- 7.3 Measure the length of an object to the nearest inch and/or centimeter.
- 7.4 Recognize when an estimate is reasonable in measurements (e.g., closest inch).

**8. Time and Money:** Students model and solve problems by representing, adding, and subtracting amounts of money:

- 8.1 Solve problems using combinations of coins and bills.
- 8.2 Know and use the decimal notation and the dollar and cent symbols for money.
- 8.3 Tell time to the nearest quarter hour and know relationships of time (e.g., minutes in an hour, days in a month, and weeks in a year).
- 8.4 Determine the duration of intervals of time in hours (e.g., 11:00 a.m. to 4:00 p.m.).

**9. Pre-Algebra Problems:** Students model, represent, and interpret number relationships to create and solve problems involving addition and subtraction:

- 9.1 Use the commutative and associative rules to simplify mental calculations and to check results.
- 9.2 Relate problem situations to number sentences involving addition and subtraction.
- 9.3 Solve addition and subtraction problems by using data from simple charts, picture graphs, and number sentences.

**10. Statistics, Data Analysis, and Probability:** Students collect numerical data and record, organize, display, and interpret the data on bar graphs and other representations:

- 10.1 Record numerical data in systematic ways, keeping track of what has been counted.
- 10.2 Represent the same data set in more than one way (e.g., bar graphs and charts with tallies).
- 10.3 Identify features of data sets (range).
- 10.4 Answer simple questions related to data representations.