Grade 6

Students demonstrate increasingly complex understanding of number sense.

Ratios and Proportional Relationships

1 Demonstrate a simple ratio relationship. EE.6.RP.1

- H The student can use a ratio to describe a relationship using numbers and objects. EE.6.RP.H.1
- M The student can complete a pattern given a simple ratio. EE.6.RP.M.1
- L The student can identify a one-to-one relationship. EE.6.RP.L.1

The Number System

1 Compare the relationships between two unit fractions. EE.6.NS.1

- H The student can compare the relationship between two unit fractions (a fraction with a numerator of 1 such as 1/3, 1/8, etc.) no smaller than 1/10. EE.6.NS.H.1
- M The student can identify a shape that is separated into equal parts. EE.6.NS.M.1
- L The student can differentiate between a whole object and half of the object. EE.6.NS.L.1

2 Apply the concept of fair share and equal shares to divide. EE.6.NS.2

- H The student can solve a division problem using the concept of equal shares. EE.6.NS.H.2
- M The student can separate sets into equal subsets. EE.6.NS.M.2
- L The student can demonstrate an understanding of equal sets by identifying a set that has been divided into subsets that are “the same”. EE.6.NS.L.2

3 Solve two-factor multiplication problems with products up to 50 using concrete objects and/or a calculator. EE.6.NS.3

- H The student can solve a simple multiplication problem (one factor times another) using concrete objects and/or a calculator. EE.6.NS.H.3
- M The student can solve a simple multiplication problem (one factor times another) with products up to 15 using concrete objects and/or a calculator. EE.6.NS.M.3
- L The student can identify a group of a given quantity. EE.6.NS.L.3

5-8 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below (zero). EE.6.NS.5-8

- H The student can recognize that positive and negative numbers are used together to describe real-world situations (temperature above/below zero). EE.6.NS.H.5-8
- M The student can identify that positive numbers are more than zero and negative numbers are less than zero. EE.6.NS.M.5-8
- L The student can use manipulatives to demonstrate understanding of “more than” a given number; and “take away” from a given number so there are zero remaining. EE.6.NS.L.5-8

Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles.

Geometry

1 Solve real-world and mathematical problems about area using unit squares. EE.6.G.1

- H The student can solve real-world and mathematical problems involving area using unit squares. EE.6.G.H.1
- M The student can determine the area of a rectangle by counting unit squares. EE.6.G.M.1
- L The student can identify which of two objects has a larger/bigger area. EE.6.G.L.1

2 Solve real-world and mathematical problems about volume using unit cubes. EE.6.G.2

- H The student can solve real-world and mathematical problems involving volume using unit cubes. EE.6.G.H.2
- M The student can determine which of 2 objects has a larger volume. EE.6.G.M.2
- L The student can differentiate between an object that has volume (three-dimensional) and an object that does not. EE.6.G.L.2

Students demonstrate increasingly complex understanding of measurement, data and analytic procedures.

Statistics and Probability

1-2 Display data on a graph or table that shows variability in the data. EE.6.SP.1-2

- H The student can display data on a graph or table that shows variability in the data. EE.6.SP.H.1-2
- M The student can identify which quantity is greatest when three quantities are represented on a bar or circle graph. EE.6.SP.M.1-2
- L The student can identify a set that has objects that are the same or different. EE.6.SP.L.1-2

5 Summarize data distributions shown in graphs or tables. EE.6.SP.5

- H The student can describe the trend lines of data using informal language (e.g., increasing, decreasing, stays the same). EE.6.SP.H.5
- M The student can identify which quantity is smallest or least when three quantities are represented on a bar or circle graph. EE.6.SP.M.5
- L The student can identify which object or symbol appears most frequently when presented with objects or symbols that are unsorted in a row. EE.6.SP.L.5

Students solve increasingly complex mathematical problems, making productive use of algebra and functions.

Solving Expressions and Equations

1-2 Identify equivalent number sentences. EE.6.EE.1-2

- H The student can recognize equivalent number sentences. EE.6.EE.H.1-2
- M The student can match a number sentence to a correct picture representation. EE.6.EE.M.1-2
- L The student can identify a quantity that “is the same as” a given quantity of objects. Instructional focus on using both the language of same with symbol (=) paired together. EE.6.EE.L.1-2

3 Apply the properties of addition to identify equivalent numerical expressions. EE.6.EE.3

5-7 Match an equation to a real-world problem in which variables are used to represent numbers. EE.6.EE.5-7

- H The student can identify an equation that represents a real-world problem in which the variable represents an addend. Use a box to represent the variable. The real-world problem will use objects or pictures as a guide. EE.6.EE.H.5-7
- M The student can identify an equation that represents a real-world problem in which the variable represents the sum. Use a box to represent the variable. The real world problem will use objects or pictures as a guide. EE.6.EE.M.5-7
- L The student can determine an unknown unit in an equation using objects or pictures. EE.6.EE.L.5-7