

# 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](#)

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## 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  $\frac{1}{3}$ ,  $\frac{1}{8}$ , etc.) no smaller than  $\frac{1}{10}$ . **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**
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**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**
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**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**
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**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**