6th Grade Math Learning Targets

Grade 6 Algebra

6.A.1.1. Students are able to **use** order of operations, excluding nested parentheses and exponents, to **simplify** whole number expressions. **Application**

- I can list the order of operations. 6.A.1.1.
- I can apply the order of operations to a problem. 6.A.1.1.
- I can simplify an addition expression. 6.A.1.1.
- I can simplify a subtraction expression. 6.A.1.1.
- I can simplify a multiplication expression. 6.A.1.1.
- I can simplify a division expression. 6.A.1.1.
- I can simplify an expression with parentheses. 6.A.1.1.
    - I can simplify an expression with exponents.

6.A.1.2. Students are able to **write** algebraic expressions involving addition or multiplication using whole numbers. **Application**

- I can read an addition statement and translate it into an algebraic expression. **6.A.1.2**
- I can read a multiplication statement and translate it into an algebraic expression. **6.A.1.2**
    - I can read a subtraction statement and translate it into an algebraic expression.
    - I can read a division statement and translate it into an algebraic expression.

6.A.2.1. Students are able to **write** and **solve** one-step 1st degree equations, with one variable, involving inverse operations using the set of whole numbers. **Application**

- I can apply the inverse operation to solve an equation**.6.A.2.1.**
- I can solve an addition equation using one variable. **6.A.2.1.**
- I can solve an addition word problem using one variable. **6.A.2.1.**
- I can solve a subtraction equation using one variable. **6.A.2.1.**
- I can solve a subtraction word problem using one variable**. 6.A.2.1.**
- I can solve a multiplication equation using one variable. **6.A.2.1.**

- I can solve a multiplication word problem using one variable. **6.A.2.1.**
- I can solve a division equation using one variable. **6.A.2.1.**
- I can solve a division word problem using one variable**. 6.A.2.1.**

6.A.3.1. Students are able to **identify** and **graph** ordered pairs in Quadrant I on a coordinate plane. **Knowledge**

- I can define a coordinate plane**. 6.A.3.1.**
- I can identify a coordinate plane**. 6.A.3.1**
- I can identify quadrant I on a coordinate plane**. 6.A.3.1**
- I can identify the X-axis on a coordinate plane**. 6.A.3.1**
- I can identify the Y-axis on a coordinate plane**. 6.A.3.1**
- I can define an ordered pair. **6.A.3.1**
- I can plot an ordered pair on the coordinate plane**. 6.A.3.1**
- I can identify an ordered pair graphed on the coordinate plane**. 6.A.3.1**

6.A.3.2. Students are able to **solve** one-step problems involving ratios and rates. **Application**

- I can define a ratio**. 6.A.3.2.**
- I can solve a one-step problem involving a ratio. **6.A.3.2.**
- I can define a rate**. 6.A.3.2.**
- I can solve a one-step problem involving a rate**. 6.A.3.2.**
- I can find the unit rate using a denominator of one**. 6.A.3.2.**

6.A.4.1. Students are able to **use** concrete materials, graphs and algebraic statements to **represent** problem situations. **Comprehension**

- I can use concrete materials(manipulatives) to find the answer to a word problem. **6.A.4.1**
- I can identify a scatter plot graph. **6.A.4.1**
- I can identify 2 sets of plotted data in the coordinate plane to solve a word problem. **6.A.4.1**
- I can plot 2 sets of data to create a scatter plot graph to solve a word problem. **6.A.4.1**
- I can solve a word problem using an algebraic addition expression. **6.A.4.1**
- I can solve a word problem using an algebraic subtraction expression. **6.A.4.1**
- I can solve a word problem using an algebraic multiplication expression. **6.A.4.1**
- I can solve a word problem using an algebraic division expression. **6.A.4.1**

Grade 6 - Geometry

6.G.1.1.Students are able to **identify** and **describe** the characteristics of triangles and quadrilaterals. **Comprehension**

- I can classify (identify) a triangle by the number of congruent sides as scalene, isosceles, or equilateral. **6.G.1.1**
- I can classify (identify) a triangle by the degree measures of the angles as acute, right, or obtuse. **6.G.1.1**
- I can identify a triangle as a 3 sided figure with the sum of the angles equal to exactly 180 degrees. **6.G.1.1**
- I can classify (identify) a quadrilateral by its characteristics. **6.G.1.1**
- I can identify a parallelogram. **6.G.1.1**
- I can identify a trapezoid. **6.G.1.1**
- I can identify a rectangle. **6.G.1.1**
- I can identify a rhombus. **6.G.1.1**
- I can identify a square. **6.G.1.1**
- I can identify the similarities of quadrilaterals. **6.G.1.1**
- I can identify the differences of quadrilaterals. **6.G.1.1**

6.G.1.2. Students are able to identify and describe angles. **Comprehension**

- I can identify an angle as acute. **6.G.1.2.**
- I can identify an angle as obtuse. **6.G.1.2.**
- I can identify an angle as right. **6.G.1.2.**
- I can explain or describe why an angle is acute. **6.G.1.2.**
- I can explain or describe why an angle is obtuse. **6.G.1.2.**
- I can explain or describe why an angle is right. **6.G.1.2.**

6.G.2.1. Students are able to **use** basic shapes to **demonstrate** geometric concepts. **Application**

- I can identify the line(s) of symmetry in a triangle, **6.G.2.1**.
- I can identify the line(s) of symmetry in a rectangle. **6.G.2.1**.
- I can identify the line(s) of symmetry in a square. **6.G.2.1**.
- I can identify the line(s) of symmetry in a parallelogram. **6.G.2.1**.
- I can identify and demonstrate if shapes(triangles, squares, rectangles and parallelograms) are congruent. **6.G.2.1**.
- I can identify the corresponding parts of congruent triangles. **6.G.2.1**.
- I can identify the corresponding parts of quadrilaterals. **6.G.2.1**.
- I can identify and demonstrate if shapes (triangles, squares, rectangles and parallelograms) are similar. **6.G.2.1**.
- I can identify perpendicular lines in a triangle. **6.G.2.1**.
- I can identify perpendicular lines in a rectangle. **6.G.2.1**.
- I can identify perpendicular lines in a square. **6.G.2.1**.
- I can identify perpendicular lines in a trapezoid. **6.G.2.1**.
- I can identify parallel lines in a rectangle. **6.G.2.1**.
- I can identify parallel lines in a square. **6.G.2.1**.
- I can identify parallel lines in a parallelogram. **6.G.2.1**.
- I can identify and demonstrate a reflection. **6.G.2.1**.
    - I can identify and demonstrate a rotation.
    - I can identify and demonstrate a translation.

Grade 6 – Measurement

6.M.1.1. Students are able to **select, use, and convert** appropriate unit of measurement for a situation. Comprehension

- I can find how much time has passed within seconds. 6.M.1.1
- I can find how much time has passed within minutes. 6.M.1.1
- I can find how much time has passed within hours. 6.M.1.1
- I can convert length within the metric system. 6.M.1.1
- I can convert capacity within the metric system. 6.M.1.1
- I can convert mass within the metric system. 6.M.1.1
- I can select the correct metric unit to measure length. 6.M.1.1
- I can select the correct metric unit to measure capacity. 6.M.1.1
- I can select the correct metric unit to measure mass. 6.M.1.1
- I can convert weight within the U.S. customary system. 6.M.1.1
- I can convert length within the U.S. customary system. 6.M.1.1
- I can convert capacity within the U.S. customary system. 6.M.1.1

6.M.1.2. Students are able to **find** the perimeter and area of squares and rectangles (whole number measurements). **Comprehension**

- I can define perimeter. 6.M.1.2
- I can define area. 6.M.1.2
- I can find the perimeter of a square by counting. 6.M.1.2
- I can calculate (formula) the perimeter of a square. 6.M.1.2
- I can find the perimeter of a rectangle by counting. 6.M.1.2
- I can calculate (formula) the perimeter of a rectangle. 6.M.1.2
- I can use the correct unit label when finding perimeter. 6.M.1.2
- I can find the area of a square by counting. 6.M.1.2
- I can calculate (formula) the area of a square. 6.M.1.2
- I can find the area of a rectangle by counting. 6.M.1.2
- I can calculate (formula) the area of a rectangle. 6.M.1.2
- I can use the correct unit label when finding area. 6.M.1.2
- I can use the correct unit to label perimeter and area. 6.M.1.2

Grade 6– Number Sense

Grade 6 Unpacked Math Standards – Number Sense

6.N.1.1. Students are able to **represent** fractions in equivalent forms and **convert** between fractions, decimals, and percents using halves, fourths, tenths, hundredths. **Comprehension**

- I can write in standard form using place values from billions to ten-thousandths. **6.N.1.1**
- I can write in word form using place values from billions to ten-thousandths. **6.N.1.1**
- I can convert between decimals to fractions using halves, fourths, tenths, and hundredths. **6.N.1.1**
- I can convert between fractions to decimals using halves, fourths, tenths, and hundredths. **6.N.1.1**
- I can convert between decimals to percents using halves, fourths, tenths, and hundredths. **6.N.1.1**
- I can convert between percents to decimals using halves, fourths, tenths, and hundredths. **6.N.1.1**
- I can convert between fractions to percents using halves, fourths, tenths, and hundredths. **6.N.1.1**
- I can convert between percents to fractions using halves, fourths, tenths, and hundredths. **6.N.1.1**
- I can identify fractions (halves, fourths, tenths, and hundredths) in equivalent form. **6.N.1.1**
- I can identify a mixed number. **6.N.1.1**
- I can identify a fraction. **6.N.1.1**
- I can convert a mixed number to an equivalent improper fraction. **6.N.1.1**
- I can convert an improper fraction to a mixed number. **6.N.1.1**

6.N.1.2. Students are able to **find** factors and multiples of whole numbers. **Knowledge**.

- I can determine or find the factors of a whole number**. 6.N.1.2**
- I can determine or find the multiples of a whole number**. 6.N.1.2**
- I can determine if a number is a prime number**. 6.N.1.2**
- I can determine if a number is a composite number**. 6.N.1.2**
- I can determine if a number is neither prime nor composite**. 6.N.1.2**

6.N.2.1. Students are able to **add, subtract, multiply,** and **divide** decimals**.**
Comprehension

- I can add decimals. **6.N.2.1**.
- I can subtract decimals**. 6.N.2.1**.
- I can multiply decimals**. 6.N.2.1**.
- I can divide decimals**. 6.N.2.1**.

6.N.3.1. Students are able to **use** various strategies to **solve** one- and two-step problems involving positive decimals. Application

- I can define positive decimals (decimals greater than zero). **6.N.3.1**.
- I can apply at least one of the following strategies (estimation, guess and check, make a table or organized list, look for a pattern or work a simpler problem) to find the solution for a one-operation problem involving positive decimals. 6.N.3.1**.**
- I can apply at least one of the following strategies (estimation, guess and check, make a table or organized list, look for a pattern or work a simpler problem) to find the solution for a two-operation problem involving positive decimals. 6.N.3.1**.**
- I can explain or demonstrate the chosen strategy.
- I can justify my answer/solution.

Grade 6 – Statistics & Probability

6.S.1.1. Students are able to **find** the mean, mode, and range of an ordered set of positive data. **Comprehension**

- I can calculate the mean in an ordered set of positive numbers. **6.S.1.1**

- I can find the mode in an ordered set of positive numbers. **6.S.1.1**
- I can calculate the range in an ordered set of positive numbers. **6.S.1.1**
    - I can find the median in an ordered set of positive numbers.

6.S.1.2. Students are able to **display** data using bar and line graphs and **draw** conclusions from data displayed in a graph. **Application**

- I can define a bar graph. **6.S.1.2**.
- I can define a line graph. **6.S.1.2**.
- I can choose an appropriate graph (bar or line) to display a set of data. **6.S.1.2**.
- I can draw a conclusion from the data displayed in a bar graph. **6.S.1.2**.
- I can draw a conclusion from the data displayed in a line graph. **6.S.1.2**.

6.S.2.1. Students are able to **find** the probability of a simple event. **Knowledge**

- I can define probability (the likelihood of an event happening) **6.S.2.1**
- I can find the probability of a single event. **6.S.2.1**
- I can express a probability as a fraction (ratio). **6.S.2.1**