

# **“I Can” Common Core!**

## 6th Grade Math

### **I Can Use Ratios & Proportional Relationships to Help Me Understand Math**

- I can understand ratios and the language used to describe two amounts. 6.RP.A.1
- I can understand how to find a rate when given a specific ratio. (Ex: We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger.) 6.RP.A.2
- I can solve word problems related to ratios in order to figure out the rate. 6.RP.A.3
- I can make tables of equivalent ratios, find missing values in the tables, plot those values on a coordinate plane, and use the tables to compare ratios. 6.RP.A.3a
- I can solve unit rate problems. (Ex: If it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were the lawns being mowed?) 6.RP.A.3b
- I can find a percent of a quantity as a rate per 100. (Ex: 30% of a quantity means 30/100 times the quantity). 6.RP.A.3c
- I can solve problems involving finding the whole if I am given a part and the percent. 6.RP.A.3c
- I can use what I know about ratios to convert units of measurement. 6.RP.A.3d

## I Can Use the Number System to Help Me Understand Math

- I can divide two fractions. 6.NS.A.1
- I can solve word problems involving the division of fractions by fractions. 6.NS.A.1
- I can divide multi-digit numbers. 6.NS.B.2
- I can add, subtract, multiply and divide multi-digit numbers involving decimals. 6.NS.B.3
- I can find the greatest common factor of two whole numbers less than or equal to 100. 6.NS.B.4
- I can find the least common multiple of two whole numbers less than or equal to 12. 6.NS.B.4
- I can use the distributive property to show the sum of two whole numbers 1-100 in different ways. (Ex: show  $36 + 8$  as  $4(9+2)$ ). 6.NS.B.4
- I can understand that positive and negative numbers are used to describe amounts having opposite values. 6.NS.C.5
- I can use positive and negative numbers to show amounts in real-world situations and explain what the number 0 means in those situations. 6.NS.C.5
- I can understand that a rational number is a point on a number line. 6.NS.C.6
- I can extend number line diagrams to show positive and negative numbers on the line and in the plane. 6.NS.C.6
- I can recognize opposite signs of numbers as indicating places on opposite sides of 0 on the number line.) 6.NS.C.6a
- I can understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane. (Ex: when two ordered pairs differ only by signs, the locations appear to be reflections of each other on the coordinate plane.) 6.NS.C.6b
- I can place integers and other numbers on a number line diagram. 6.NS.C.6c

- I can place ordered pairs on a coordinate plane. 6.NS.C.6c
- I can order positive and negative numbers. 6.NS.C.7
- I can understand absolute value of rational numbers. 6.NS.C.7
- I can understand the distance between two numbers (positive or negative) on a number line. 6.NS.C.7a
- I can write, understand and explain what rational numbers mean in real-world situations. (Ex:  $-3^{\circ}\text{C} > -7^{\circ}\text{C}$  to show that  $-3^{\circ}\text{C}$  is warmer than  $-7^{\circ}\text{C}$ )  
6.NS.C.7b
- I can understand the absolute value as the number's distance from 0 on the number line. 6.NS.C.7c
- I can understand absolute values as they apply to real-world situations. (Ex: for an account balance of  $-30$  dollars, write  $(-30) = 30$  to describe the size of the debt in dollars.) 6.NS.C.7c
- I can tell the difference between comparing absolute values and ordering positive and negative numbers. 6.NS.C.7d
- I can graph in all four quadrants of the coordinate plane to help me solve real-world and mathematical problems. 6.NS.C.8
- I can determine the distance between points in the same first coordinate or the same second coordinate. 6.NS.C.8

## I Can Use Expressions and Equations to Help Me Understand Math

- I can write and understand numerical expressions involving whole number exponents. 6.EE.A.
- I can write, read and figure out expressions in which letters stand for numbers. 6.EE.A.2
- I can write expressions using numbers and letters (with the letters standing for numbers.) 6.EE.A.2a
- I can identify the parts of an expression using mathematical words (sum, term, product, factor, quotient, coefficient.) 6.EE.A.2b
- I can understand that in  $2(8 + 7)$ ,  $(8 + 7)$  can be thought of as two separate numbers or as 15. 6.EE.A.2b
- I can determine the answer to expressions when given the specific value of a variable. 6.EE.A.2c
- I can use my knowledge of the order of operations to evaluate expressions. 6.EE.A.2
- I can use my knowledge of the order of operations to create equivalent expressions. 6.EE.A.3
- I can identify when two expressions are equivalent. 6.EE.A.4
- I can understand that solving an equation or inequality is like answering a question. 6.EE.B.5
- I can use variables to represent numbers and write expressions when solving real-world problems. 6.EE.B.6
- I can solve real-world and mathematical problems by writing and solving equations. 6.EE.B.7
- I can write an inequality which has many solutions and represent these solutions on a number line (where  $x > c$  or  $x < c$ ). 6.EE.B.8

- I can use variables to represent two quantities in a real world problem and write an equation to express the quantities. 6.EE.C.9
- I can use graphs and tables to show the relationship between dependent and independent variables. 6.EE.C.9

### **I Can Use Geometry to Help Me Understand Math**

- I can put together and take apart shapes to help me find the area of right triangles, other triangles, special quadrilaterals and polygons. I can make a line plot to display data sets of measurements in fractions. 6.G.A.1
- I can apply what I know about taking apart and putting together shapes to find the area in real world situations. 6.G.A.1
- I can use unit cubes to find the volume of a right rectangular prism and I understand that the mathematical formula ( $V = l w h$  or  $V = b h$ ) will give me the same result. 6.G.A.2
- I can use the mathematical formulas  $V = l w h$  or  $V = b h$  to determine the volume of real world objects. 6.G.A.2
- I can draw polygons in the coordinate plane when I am given the coordinates for the vertices. 6.G.A.3
- I can use the coordinates of the vertices of a polygon on the coordinate plane to find the length of a side, joining points with the same first coordinate or the same second coordinate. 6.G.A.3
- I can apply what I have learned about polygons on coordinate planes to real world and mathematical situations. 6.G.A.3
- I can show how three dimensional figures can be made using two dimensional nets. (A net is the pattern made when the surface of a three dimensional figure is laid out flat). 6.G.A.4
- I can figure out the surface area of a three dimensional shape by using a net. 6.G.A.4

## **I Can Use Statistics to Help Me Understand Math**

- I understand that the data in questions involving statistics is varied as it relates to the question and answers. 6.SP.A.1**
- I understand that a set of data collected to answer a statistical question has an overall shape, including a center and spread, when plotted on a graph. 6.SP.A.2**
- I understand that a set of numerical data has a measure of center (median and/or mean) that summarizes all of its values with a single number. 6.SP.A.3**
- I understand that in a set of numerical data, the measure of variation describes how its values vary with a single number. 6.SP.A.3**
- I can show numerical data on a number line. 6.SP.B.4**
- I can summarize sets of numerical data that are different. 6.SP.B.5**
- I can summarize data by stating the number of observations. 6.SP.B.5a**
- I can summarize data by describing the characteristics of what is being investigated, including how it was measured. 6.SP.B.5b**
- I can summarize data by giving numerical measures of center and variability. 6.SP.B.5c**
- I can summarize data by describing the overall pattern of the data and noticing unusual deviations from the overall pattern. 6.SP.B.5c**
- I can summarize data by explaining how the distribution of the data on a graph determines its measure of center (median and/or mean). 6.SP.B.5.d**