Corrective Mathematics

Common Core State Standards for Grade 6	Lesson Reference
Ratios and Proportional Relationships 6.RP	
Understand ratio concepts and use ratio reasoning to solve problems.	
6.RP.1. Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.	

The Number System   6.NS

Apply and extend previous understandings of multiplication and division to divide fractions by fractions.

6.NS.1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because ¾ of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share ½ lb of chocolate equally? How many ¾-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length ¾ mi and area ½ square mi?*

	32.4, 33.5, 34.6, 35.3, 35.4, 36.3, 36.5, 37.5, 38.3, 39.2, 39.3, 39.5, 40.5-7, 41.5-7, 52.3, 42.4, 43.3, 43.5, 44.4, 44.5, 45.5, 45.6, 46.5, 47.5, 47.6, 50.2, 50.5, 51.5, 52.3, 53.3, 54.3, 54.5, 55.5, 56.3, 57.6, 58.5, 59.3, 60.3, 61.3, 62.3, 63.2, 64.3, 65.2
6.NS.3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	**Fractions-Decimals-Percents, TPB:** (Lesson.Exercise) 38.6, 39.5, 39.6, 40.5, 40.6, 41.4, 42.3-5, 43.3, 43.4, 44.3-5, 45.2-5, 46.2-5, 47.2-5, 48.2-5, 49.2-5, 50.3-6, 51.2-5, 52.2-6, 53.2-7, 54.2-4, 55.2-6, 56.2-5, 57.2, 57.3, 57.5, 58.1, 58.2, 59.1, 59.3, 60.1, 60.2, 60.6, 61.1, 61.6, 62.1, 63.2, 64.1, 64.4, 65.1, 65.4, 66.2, 67.1, 67.4, 68.1, 69.2, 69.5, 70.4 **Fractions-Decimals-Percents, WB:** (Lesson.Exercise) 39.5, 40.5, 41.4, 41.5, 42.3, 42.4, 43.4, 43.5, 44.3, 44.4, 45.2-4, 46.2-4, 47.2-4, 48.2-4, 49.2-5, 50.3-5, 51.2-5, 52.2-4, 53.2-5, 54.2-4, 55.2-4, 56.2, 56.3, 57.2-4, 58.1, 58.2, 59.1, 59.3, 60.2, 60.5, 61.1, 61.4, 62.1, 63.2, 64.1, 64.3, 65.1, 65.3, 66.2, 67.1, 67.3, 68.1, 69.2, 69.5, 70.4

6.NS.4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of

	12.2, 12.3, 13.1, 13.3, 14.1, 14.2, 15.1, 18.3, 19.2, 20.2, 21.2, 22.3, 24.3, 25.3, 27.2, 28.3, 29.3, 31.3
Apply and extend previous understandings of numbers to the system of rational numbers.	
6.NS.5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g. temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.	

6.NS.6. Understantasentiodittdve num litan

prio6u( )gradluebi)JT

quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.	
Expressions and Equations 6.EE	
Apply and extend previous understandings of arithmetic to algebraic expressions.	
6.EE.1. Write and evaluate numerical expressions involving whole-number exponents.	
6.EE.2. Write, read, and evaluate expressions in which letters stand for numbers.	
6.EE.2a. Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5-y.*	
6.EE.2b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.*	
6.EE.2c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V = s^3$ and $a = 6 s^2$ to find the volume and surface area of a cube with sides of length s= ½.*	
6.EE.3. Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.*	
6.EE.4. Identify when two expressions are equivalent (i.e. when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for.*	
Reason about and solve one-variable equations and inequalities.	
6.EE.5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	
6.EE.6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.	
6.EE.7. Solve real-world and mathematical problems by writing and solving equations of	

the form $x + p = q$ and $px = q$ for cases in which $p, q,$ and x are all nonnegative rational numbers.	
6.EE.8. Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.	
Represent and analyze quantitative relationships between dependent and independent variables.	
6.EE.9. Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.*	

question because one anticipates variability in students' ages.	
6.SP.2. Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.	
6.SP.3. Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	
Summarize and describe distributions.	
6.SP.4. Display numerical data in plots on a number line, including dot plots, histograms, and box plots	
6.SP.5. Summarize numerical data sets in relation to their context, such as by:	
6.SP.5a. Reporting the number of observations.	
6.SP.5b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.	
6.SP.5c. Giving quantities measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.	
6.SP.5d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	