

Math 7 – Short Cycle Assessment #1



The following assessment will be covering the following standards:

STANDARD DESCRIPTION	ACADEMIC VOCABULARY	RESOURCES
<p>NS.1—Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.</p> <p>NS.1.A—Describe situations in which opposite quantities combine to make 0. <i>For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.</i></p> <p>NS.1.B—Understand $p + q$ as the number located a distance q from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.</p>	<p>Additive Inverse</p> <p>Integer</p> <p>Rational Number</p> <p>Absolute Value</p> <p>Number Line</p> <p>Difference</p> <p>Sum</p> <p>Opposites</p>	<p>AIR Test (Ohio, Florida, Utah, Arizona, Oregon, Washington, South Dakota, Idaho, Iowa)</p> <p>Kuta Software</p> <p>Khan Academy</p> <p>JCESC Website</p>

<p>NS.1.C—Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.</p>		
<p>NS.1.D—Apply properties of operations as strategies to add and subtract rational numbers.</p> <p>NS.2—Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.</p> <p>NS.2.A—Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.</p> <p>NS.2.B—Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts.</p> <p>NS.2.C—Apply properties of operations as strategies to multiply and divide rational numbers.</p>	<p>Additive Inverse</p> <p>Integer</p> <p>Rational Number</p> <p>Absolute Value</p> <p>Number Line</p> <p>Difference</p> <p>Sum</p> <p>Opposites</p>	

<p>NS.1.D—Apply properties of operations as strategies to add and subtract rational numbers.</p> <p>NS.2.C—Apply properties of operations as strategies to multiply and divide rational numbers.</p> <p>NS.2.D—Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.</p> <p>NS.3—Solve real-world and mathematical problems involving the four operations with rational numbers.</p>	<p>Rational Number</p> <p>Terminating/ Repeating Decimal</p> <p>Fraction</p> <p>Decimal</p> <p>Numerator</p> <p>Denominator</p> <p>Complex Fraction</p> <p>Reciprocal</p>	<p>AIR Test (Ohio, Florida, Utah, Arizona, Oregon, Washington, South Dakota, Idaho, Iowa)</p> <p>Kuta Software</p> <p>Khan Academy</p> <p>JCESC Website</p>
<p>RP.1—Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. <i>For example, if a person walks $\frac{1}{2}$ mile in each $\frac{1}{4}$ hour, compute the unit rate as the complex fraction $\frac{1/2}{1/4}$ miles per hour, equivalently 2 miles per hour.</i></p> <p>RP.2—Recognize and represent proportional relationships between quantities.</p> <p>RP.2.A—Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.</p> <p>RP.2.B—Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal</p>	<p>Unit Ratio</p> <p>Ratio</p> <p>Proportion</p> <p>Proportional Relationship</p> <p>Constant of Proportionality</p> <p>Each</p> <p>Equivalent</p> <p>Corresponding Sides</p> <p>Corresponding Angles</p> <p>Similar Figures</p> <p>Scale</p>	<p>AIR Test (Ohio, Florida, Utah, Arizona, Oregon, Washington, South Dakota, Idaho, Iowa)</p> <p>Kuta Software</p> <p>Khan Academy</p> <p>JCESC Website</p>

descriptions of proportional relationships.	Right Triangles	
	Special Quadrilaterals	
<p>RP.2.B—Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.</p> <p>RP.2.C—Represent proportional relationships by equations. <i>For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as $t = pn$.</i></p> <p>RP.2.D—Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where r is the unit rate.</p> <p>RP.3—Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.</p>	<p>Ordered Pairs</p> <p>Origin</p> <p>Percent</p> <p>Equations</p> <p>Interest Rate</p> <p>% Change/Error</p> <p>Markup/Markdown</p> <p>Points for Constant of Proportionality</p>	<p>AIR Test (Ohio, Florida, Utah, Arizona, Oregon, Washington, South Dakota, Idaho, Iowa)</p> <p>Kuta Software</p> <p>Khan Academy</p> <p>JCESC Website</p>

Please read the following before you begin:

- 1.) To avoid losing any work, make sure you click the **SAVE** button after each question.
- 2.) When you are finished with your assessment, click **ALL FINISHED! REVIEW MY ANSWERS**.
- 3.) When you are satisfied with your work, click **LOOKS OK! SEND TO MY TEACHER**.