

# SJPS 5th Grade Math Report Card Scales

## Domain: Operations and Algebraic Thinking

<p><b>State Standard: 5.OA.1</b> Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. <b>Report Card Standard Language:</b> Solves number sentences that contain parentheses, brackets, or braces</p>	
4.0	Accurately solve complex equations (ex. nested parentheses and/or exponents) working through three or more order of operations steps.
3.0	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• accurately solve number sentences that contain parentheses, brackets, or braces <b>AND</b></li> <li>• write simple expressions, including the placement of parentheses, to make it true</li> </ul>
2.0	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• accurately solve number sentences that contain parentheses, brackets, or braces <b>OR</b></li> <li>• write simple expressions, including the placement of parentheses, to make it true</li> </ul>
1.0	With help and reteaching, student has partial success at the 2.0 level


## Domain: Measurement and Data

<p><b>State Standard: 5.MD.5b</b> Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. b. Apply the formulas <math>V = l \times w \times h</math> and <math>V = b \times h</math> for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems. <b>Report Card Standard Language:</b> Solves problems involving volume using formulas (<math>V=l \times w \times h</math> or <math>V=b \times h</math>)</p>	
4.0	Determine the volume of a rectangular prism with fractional side lengths
3.0	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• accurately solve problems involving volume using formulas (<math>V=l \times w \times h</math> or <math>V=b \times h</math>) <b>AND</b></li> <li>• Solves problems by adding volumes of non-overlapping prisms (5.MD.5c)</li> </ul>
2.0	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Finds volume of a prism with unit cubes (5.MD.5a) <b>OR</b></li> <li>• accurately solve problems involving volume using formulas (<math>V=l \times w \times h</math> or <math>V=b \times h</math>)</li> </ul>
1.0	With help and reteaching, student has partial success at the 2.0 level


**Domain: Numbers and Operations-Fractions**

<b>CCSS.MATH.CONTENT.5.NF.B.4.B</b>	
Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.	
<b>Report Card Standard Language:</b> Finds area of rectangle w/ unit squares/side lengths & formula $A = L \times W$	
<b>4.0</b>	I can demonstrate connections and applications that go beyond what was taught or read by the end of the year.
<b>3.0</b>	<b>Students will be able to:</b> <ul style="list-style-type: none"> <li>count grid squares (tiling) to calculate area of rectangle with fractional side lengths <b>AND</b></li> <li>calculate area by multiplying fractional side lengths</li> </ul>
<b>2.0</b>	<b>Students will be able to:</b> <ul style="list-style-type: none"> <li>count grid squares (tiling) to calculate area of rectangle with fractional side lengths <b>OR</b></li> <li>calculate area by multiplying fractional side lengths (unit fractions)</li> </ul>
<b>1.0</b>	With help and reteaching, student has partial success at the 2.0 level


**Domain: Number and Operation in Base Ten**

<b>State Standard: 5.NBT.5</b>	
Fluently multiply multi-digit whole numbers using the standard algorithm.	
<b>Report Card Standard Language:</b> Easily multiplies large whole numbers.	
<b>4.0</b>	Easily multiply a whole number larger than three digits by a whole number larger than two digits using the standard algorithm.
<b>3.0</b> 	<b>Students will be able to:</b> <ul style="list-style-type: none"> <li>Easily multiply a three digit whole number by a two digit whole number using the standard algorithm.</li> </ul>
<b>2.0</b>	<b>Students will be able to:</b> <ul style="list-style-type: none"> <li>multiply two digit whole number by a two digit whole number using standard algorithm</li> </ul>
<b>1.0</b>	With help and reteaching, students have partial success at the 2.0 level.


**Domain: Numbers and Operations in Base Ten**


<b>State Standard: 5.NBT.6</b>	
Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	
<b>Report Card Standard Language:</b> Divides 4-digit numbers by 2-digit numbers and explains the process.	
<b>4.0</b>	<b>Students will be able to :</b> <ul style="list-style-type: none"> <li>fluently divide multi-digit numbers using the standard algorithm.</li> </ul>
<b>3.0</b> 	<b>Students will be able to:</b> <ul style="list-style-type: none"> <li>accurately divide 4-digit numbers by 2-digit numbers <b>AND</b></li> <li>use strategies based on place value, the properties of operations, and/or the relationship between multiplication and division</li> </ul>
<b>2.0</b>	<b>Students will be able to:</b> <ul style="list-style-type: none"> <li>accurately divide 4-digit numbers by 1-digit numbers <b>OR</b></li> <li>use strategies based on place value, the properties of operations, and/or the relationship between multiplication and division</li> </ul>
<b>1.0</b>	With help and reteaching, student has partial success at the 2.0 level

**Domain: Numbers and Operations in Base Ten**


<p><b>State Standard: 5.NBT.7</b>                  Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.  <b>Report Card Standard Language:</b> Add and subtract decimals to hundredths using place value/operations knowledge.</p>	
4.0	There is not a 4.0 score attainable for this standard
3.0 	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>accurately add and subtract decimals to hundredths place AND</li> <li>explain the reasoning used</li> </ul>
2.0	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>accurately add and subtract decimals to tenths place</li> </ul>
1.0	With help and reteaching, student has partial success at the 2.0 level

**Domain: Numbers and Operations in Base Ten**


<p><b>State Standard: 5.NBT.7</b>                  Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.  <b>Report Card Standard Language:</b> Multiply decimals to hundredths using place value/operations knowledge.</p>	
4.0	I can solve for an unknown and/or apply error analysis in a given incorrect problem.
3.0 	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>accurately multiply decimals to hundredths place AND</li> <li>explain the reasoning used</li> </ul>
2.0	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>accurately multiply decimals to tenths place</li> </ul>
1.0	With help and reteaching, student has partial success at the 2.0 level

<p><b>State Standard: 5.NBT.7</b>                  Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.  <b>Report Card Standard Language:</b> Divide decimals to hundredths using place value/operations knowledge.</p>	
4.0	I can solve for an unknown and/or apply error analysis in a given incorrect problem.
3.0 	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>accurately divide decimals to hundredths using place value AND</li> <li>explain the reasoning used</li> </ul>
2.0	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>accurately divide decimals to tenths place</li> </ul>
1.0	With help and reteaching, student has partial success at the 2.0 level


**Domain: Numbers and Operations-Fractions**

<p><b>State Standard: 5.NF.1</b>                  Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, <math>\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}</math>. (In general, <math>\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}</math>.)  <b>Report Card Language:</b> Adds and subtracts fractions (including mixed numbers) with unlike denominators</p>	
4.0	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Add and subtract fractions and mixed numbers with unlike denominators AND</li> <li>• report their answer in lowest possible terms.</li> </ul>
3.0	<p> <b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• add and subtract fractions and mixed numbers with <b>unlike</b> denominators</li> </ul>
2.0	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• add and subtract fractions and mixed numbers with <b>like</b> denominators</li> </ul>
1.0	With help and reteaching, student has partial success at the 2.0 level


**Domain: Numbers and Operations-Fractions**

<p><b>State Standard: 5.NF.4</b>                  Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.                  a. Interpret the product <math>(\frac{a}{b}) \times q</math> as parts of a partition of <math>q</math> into <math>b</math> equal parts; equivalently, as the result of a sequence of operations <math>a \times q \div b</math>. For example, use a visual fraction model to show <math>(\frac{2}{3}) \times 4 = \frac{8}{3}</math>, and create a story context for this equation. Do the same with <math>(\frac{2}{3}) \times (\frac{4}{5}) = \frac{8}{15}</math>. (In general, <math>(\frac{a}{b}) \times (\frac{c}{d}) = \frac{ac}{bd}</math>.)  <b>Report Card Standard Language:</b> Multiply a fraction or whole number by a fraction.</p>	
4.0	Apply and extend previous understandings of multiplication in order to multiply fractions by fractions.
3.0	<p> <b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• solve equations involving multiplication of fractions AND</li> <li>• use a model to represent multiplication of fractions</li> </ul>
2.0	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• solve equations involving multiplication of fractions OR</li> <li>• use a model to represent multiplication of fractions</li> </ul>
1.0	With help and reteaching, student has partial success at the 2.0 level


**Domain: Numbers and Operations-Fractions**

<p><b>State Standard: 5.NF.7a</b>          Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p> <p>a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for <math>(1/3) \div 4</math>, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that <math>(1/3) \div 4 = 1/12</math> because <math>(1/12) \times 4 = 1/3</math>.</p> <p>b. Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for <math>4 \div (1/5)</math>, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that <math>4 \div (1/5) = 20</math> because <math>20 \times (1/5) = 4</math>.</p> <p><b>Report Card Standard Language:</b> Divides using fractions as dividends and divisors</p>	
4.0	Apply and extend previous understandings of multiplication and division to divide fractions by fractions.
3.0 	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>accurately divide a fraction by a whole number correctly (not zero) AND</li> <li>accurately divide a whole number by a fraction</li> </ul>
2.0	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>accurately divide a fraction by a whole number correctly (not zero) OR</li> <li>accurately divide a whole number by a fraction</li> </ul>
1.0	With help and reteaching, student has partial success at the 2.0 level

**Domain: Geometry**

<p><b>State Standard: 5.G.2</b>          Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.</p> <p><b>Report Card Standard Language:</b> Graphs points in the first quadrant of a graph &amp; interprets the coordinate pairs</p>	
4.0	Accurately & consistently graph points in all four quadrants of a coordinate plane
3.0 	<p><b>Student will be able to:</b></p> <ul style="list-style-type: none"> <li>Accurately &amp; consistently graph points in the first quadrant of a coordinate plane</li> <li>Accurately &amp; consistently identify the coordinates of a given point</li> </ul>
2.0	<p><b>Student will be able to:</b></p> <ul style="list-style-type: none"> <li>With assistance, accurately graph points in the first quadrant of a coordinate plane</li> <li>With assistance, accurately identify the coordinates of a given point</li> </ul>
1.0	<p><b>Student is unable to:</b></p> <ul style="list-style-type: none"> <li>With assistance, accurately graph points in the first quadrant of a coordinate plane</li> </ul>

**Domain:** Solves multi-step word problems

<b>State Standard: MP.1-3</b> Flexibly uses 5th grade mathematical practices to solve real world, multi-step problems.	
<b>4.0</b>	There is not a 4.0 score attainable for this standard.
<b>3.0</b> 	<ul style="list-style-type: none"><li>• Uses models and/or algorithms to solve multi-step word problems.</li></ul>
<b>2.0</b>	<ul style="list-style-type: none"><li>• Uses models and/or algorithms to solve single step word problems.</li></ul>
<b>1.0</b>	With help and reteaching, student has partial success at the 2.0 level