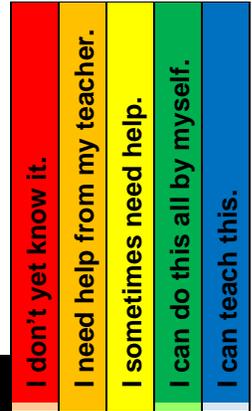


# I Can... Grade 4 Math

Major Content
  Supporting Content
  Additional Content



I Can...	Example
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AACPS | Division of Curriculum & Instruction | Model Content Frameworks, PARCC December 2014

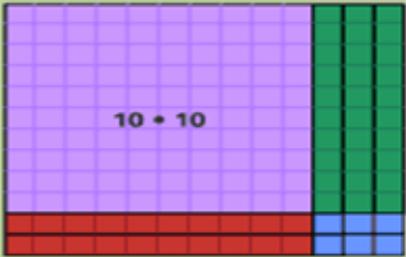
## I Can... Grade 4 Math

EOY—End of Year Assessment    PBA—Performance-Based Assessment  
 Major Content
  Supporting Content
  Additional Content



I Can...		Example	I don't yet know it.	I need help from my teacher.	I sometimes I need help.	I can do this all by myself.	I can teach this.
Operations & Algebraic Thinking	PBA & EOY	<b>4.OA.A.1</b> I can understand that multiplication equations can represent comparisons (e.g., $24 = 4 \times 6$ can be thought of as 24 is 4 times greater than 6 or 6 times greater than 4 is 24).					
	PBA & EOY	<b>4.OA.A.2</b> I can multiply or divide to solve word problems involving multiplicative comparisons by using drawings or writing equations and solving for a missing number.					
	PBA & EOY	<b>4.OA.A.3</b> I can determine how reasonable my answers to multi-step word problems are (including problems with remainders) by using estimation, mental math, and rounding.					
	EOY	<b>4.OA.B.4</b> I can find all factor pairs for a whole number from 1 to 100 and determine whether a whole number up to 100 is a prime or composite number.	List the factors of 28. Is 28 a prime or composite number?				

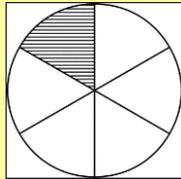
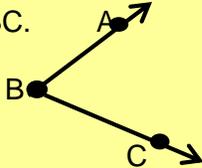
Unit	I Can...	Example					
Operations & Algebraic Thinking	<b>4.OA.A.1</b> I can understand that multiplication equations can represent comparisons (e.g., $24 = 4 \times 6$ can be thought of as 24 is 4 times greater than 6 or 6 times greater than 4 is 24).	Write the equation that represents the comparison statements: 42 is 7 times greater than 6  4 times more than 6 is 24					
	<b>4.OA.A.2</b> I can multiply or divide to solve word problems involving multiplicative comparisons by using drawings or writing equations and solving for a missing number.	Draw a bar diagram to solve:  Jackson picked 32 tomatoes from his garden. That is 8 times more than the number of tomato plants he has in his garden. How many tomato plants are in his garden?					
	<b>4.OA.A.3</b> I can determine how reasonable my answers to multi-step word problems are (including problems with remainders) by using estimation, mental math, and rounding.	There are 583 students in Suzy's school. 99 third grade students left the school on a field trip. There are about 20 students in each class. How many classrooms are being used today? Explain your answer.					
	<b>4.OA.B.4</b> I can find all factor pairs for a whole number from 1 to 100 and determine whether a whole number up to 100 is a prime or composite number.	List the factors of 28. Is 28 a prime or composite number?					
	<b>4.OA.C.5</b> I can create a number or shape pattern that follows a given rule and identify features of a given pattern.	Given the rule "add 4" and the starting number 1, generate the next 5 terms in the pattern. What do you notice about all of the terms in the pattern?					
Numbers Base Ten	<b>4.NBT.A.1</b> I can recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.	Write a 5-digit number in which the 7 is ten times more than it is in the number 64,792.					

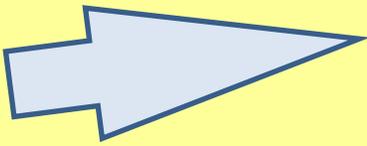
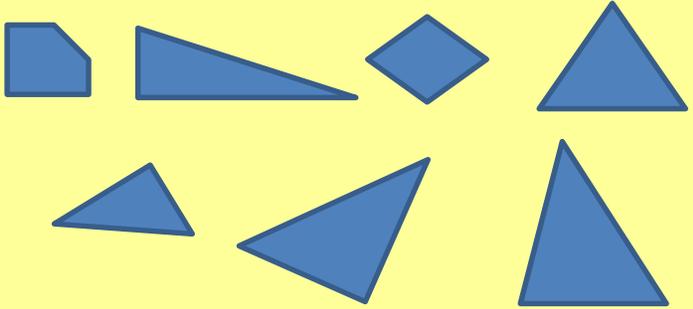
Unit	I Can...	Example					
	<b>4.NBT.A.2</b> I can read, write, and compare multi-digit whole numbers in any form using numerals and what I know about the values of numbers.	Fill in the blank with a number in standard form: $10,000 + 300 + 20 + 6 > \underline{\hspace{2cm}}$					
	<b>4.NBT.A.3</b> I can round multi-digit whole numbers to any place value.	Round 65,324 to the tens place. Round 65,324 to the thousands place					
Numbers Base Ten	<b>4.NBT.B.4</b> I can add and subtract multi-digit numbers using the standard algorithm.	Solve: $543 + 3,904 =$ $43,209 - 5,432 =$					
	<b>4.NBT.B.5</b> I can multiply a whole number with up to four digits by a one-digit whole number and multiply two two-digit numbers, and/or illustrate and explain how to multiply larger numbers by using equations, arrays, or models.	Write a multiplication equation that represents the array below: 					
	<b>4.NBT.B.6</b> I can find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors and/or illustrate and explain the problem using equations, arrays, or models.	Solve. $6,531 \div 6 =$					
Number & Operation - Fractions	<b>4.NF.A.1</b> I can find equivalent fractions by using visual models to explain how the number and size of the parts differ.	Draw a model to show why $\frac{3}{4} = \frac{9}{12}$ and determine another fraction that is equivalent to $\frac{3}{4}$ .					

Unit	I Can...	Example					
	<b>4.NF.A.2</b> I can compare two fractions with different numerators and different denominators using the symbols >, = and <, and justify the comparison by using models or reasoning.	Complete the comparisons: $\frac{4}{5} < \frac{\quad}{6}$ $\frac{2}{8} > \frac{2}{\quad}$					
	<b>4.NF.B.3</b> I can understand a fraction as a sum of unit fractions.						
Number & Operation - Fractions	<b>4.NF.B.3a</b> I can understand addition and subtraction of fractions as joining and separating parts referring to the same whole.	Draw a picture to represent the equations below: $\frac{6}{6} = \frac{4}{6} + \frac{2}{6}$ $\frac{1}{4} = \frac{4}{4} - \frac{3}{4}$					
	<b>4.NF.B.3b</b> I can decompose a fraction into a sum of fractions with the same denominator in more than one way and justify my work using models.	Write 3 different addition equations with a sum of $\frac{10}{8}$ .					
	<b>4.NF.B.3c</b> I can add and subtract mixed numbers with like denominators by replacing the mixed number with an equivalent fraction and/or using properties of operations.	Solve. $5\frac{3}{8} - 3\frac{4}{8} = ?$					
	<b>4.NF.B.3d</b> I can solve word problems involving addition and subtraction of fractions that refer to the same whole and have like denominators.	What fraction of the trip is completed if the Smiths drove $\frac{3}{10}$ of the way in the first hour and $\frac{5}{10}$ of the way in the second hour?					
	<b>4.NF.B.4</b> I can apply my understanding of multiplication to multiply a fraction by a whole number.						

Unit	I Can...	Example	Red	Orange	Yellow	Green	Blue
Numbers & Operations - Fractions	<b>4.NF.B.4a</b> I can understand a fraction as a multiple of a unit fraction times a whole number and use a visual fraction model to represent it.	Use a visual fraction model to solve $5 \times \frac{1}{4} = ?$					
	<b>4.NF.B.4b</b> I can understand a multiple of any fraction as a multiple of a unit fraction and use that knowledge to multiply any fraction by a whole number.	Fill in the missing numbers:  $\frac{2}{3} \times 5 = \frac{1}{3} \times \underline{\hspace{2cm}}$ $\underline{\hspace{2cm}} = \frac{2}{4} \times 7$					
	<b>4.NF.B.4c</b> I can solve word problems involving multiplication of a fraction by a whole number using visual fraction models and/or equations.	If each person at a party eats $\frac{3}{8}$ of a pound of roast beef, and there are 5 people attending the party, how many pounds of roast beef will be needed?					
	<b>4.NF.C.5</b> I can show a fraction with a denominator of 10 as an equivalent fraction with a denominator of 100 in order to add the two fractions.	Solve:  $\frac{2}{10} + \frac{32}{100} = \underline{\hspace{2cm}}$					
	<b>4.NF.C.6</b> I can use decimals to show fractions with denominators of 10 and 100.	What fraction is represented by the X on the number line?  					

Unit	I Can...	Example															
	<p><b>4.NF.C.7</b> I can compare two decimals to hundredths by reasoning about their size using the symbols <math>&gt;</math>, <math>=</math> and <math>&lt;</math>, and justify the comparison by using models.</p>	<p>Is the statement true? Explain why or why not. Use a visual model to support your reasoning.</p> <p><math>0.12 &lt; 0.6</math></p>															
Measurement & Data	<p><b>4.MD.A.1</b> I can show that I know the relative size of measurement units within one system of units and/or express measurements in a larger unit in terms of a smaller unit and record these in a table.</p>	<p>Below is a chart with the height of different trees in the park. Complete the chart to show the height of each tree in inches:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Feet</td> <td>2</td> <td>4</td> <td>5</td> <td>7</td> </tr> <tr> <td>Inches</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Feet	2	4	5	7	Inches									
	Feet	2	4	5	7												
	Inches																
<p><b>4.MD.A.2</b> I can use the four operations (<math>+</math>, <math>-</math>, <math>\times</math>, <math>\div</math>) to solve word problems involving measurement, fractions, and decimals, and/or show measurement quantities using diagrams that involve a measurement scale (e.g. a number line).</p>	<p>Caleb's brother weighed 9 pounds when he was born. If he gained 3 ounces the first week, how many ounces does he weigh after the first week?</p>	<p><math>+</math></p> <p><math>-</math></p> <p><math>\times</math></p> <p><math>\div</math></p>															
	<p><b>4.MD.A.3</b> I can use the formulas for finding the area and perimeter of rectangles to solve real world problems.</p>	<p>A rectangular bedroom is 8 feet wide with an area of 56 square feet. How long is the room?</p>															
Measurement & Data	<p><b>4.MD.B.4</b> I can make a line plot to show a data set of measurements involving fractions, and solve problems involving addition and subtraction of fractions by using information shown in the line plots.</p>	<p>Create a line plot using the data below.</p> <p>Capacity of drinking glasses in ounces:</p> <p>5, <math>4 \frac{3}{4}</math>, <math>5 \frac{1}{4}</math>, 6, <math>5 \frac{3}{4}</math>, <math>6 \frac{1}{2}</math>, 4, <math>4 \frac{1}{2}</math>, <math>4 \frac{3}{4}</math>, 5, <math>6 \frac{1}{2}</math>, 6</p> <p>How much more water does the largest glass hold than the smallest glass?</p>															

Unit		I Can...	Example					
		<b>4.MD.C.5</b> I can recognize angles as geometric shapes where two rays share a common endpoint, and understand concepts of angle measurement.						
Measurement & Data		<b>4.MD.C.5a</b> I can understand that angles are measured with reference to a 360° circle, and each single angle is 1° or $\frac{1}{360}$ of the circle.	An angle measures $\frac{1}{6}$ of a circle. What is the measurement of the angle?  					
		<b>4.MD.C.5b</b> I can understand that the measurement of an angle is determined by the number of 1 degree (1°) angles that it turns through in the circle.	An angle turns through 26 one-degree angles in a circle. What is the measure of the angle?					
		<b>4.MD.C.6</b> I can use a protractor to measure and sketch angles in whole-number degrees.	Measure $\angle ABC$ .  					
	<b>4.MD.C.7</b> I can solve real-world addition and subtraction problems to find unknown angles.	A basketball player pivots to rotate 15 degrees and then another pivot to make a total of a 90 degree rotation. How far did he rotate on the second pivot?						

Unit	I Can...	Example	Red	Orange	Yellow	Green	Blue
<b>Geometry</b>	<p><b>4.G.A.1</b> I can identify and draw points, lines, line segments, rays, angles, and perpendicular &amp; parallel lines independently and within two-dimensional figures.</p>	<p>Circle 2 sets of perpendicular line segments.</p> 					
	<p><b>4.G.A.2</b> I can classify two-dimensional shapes based on what I know about their geometrical attributes, and identify right triangles.</p>	<p>Circle the three right triangles:</p> 					
	<p><b>4.G.A.3</b> I can recognize, identify and draw lines of symmetry.</p>	<p>Draw two lines of symmetry in each shape below:</p> 