






	#	 <h2 style="margin: 0;">Number Sense</h2> <h2 style="margin: 0;">Whole numbers</h2>	Problems or Examples 				
	1.1	I can read and write whole numbers in the millions.					
	1.2	I can order and compare whole numbers and decimals to two decimal places.					
	1.3	I can round whole numbers to the nearest ten, hundred, thousand, ten thousand or hundred thousand.					
	1.4	I can decide when a rounded solution is called for and explain why such a solution may be appropriate.	Solve each of the following problems and observe the different roles played by the number 37 in each situation: <ol style="list-style-type: none"> 1. Four children shared 37 dollars equally. How much did each get? 2. Four children shared 37 pennies as equally as possible. How many pennies did each get? 3. Cars need to be rented for 37 children going to a field trip. Each car can take 12 children in addition to the driver. How many cars must be rented? 				
	1.8	I can use negative numbers to count, make a number line, and explain which are greater and less than.	Is -9 greater or less than -10 ?				




I CAN DO THIS!
Fourth Grade- Mathematics

	#	 Number Sense Whole numbers	Problems or Examples 				
	3.1	I can accurately add and subtract multi-digit numbers.	$619,581 - 23,183 =$ $6,747 + 321,105 =$				
	3.2	I can accurately multiply a 5-digit number by a 2- digit number.	1. $64,327 \times 84 =$				
	3.3	I can solve problems involving multiplication of multi-digit numbers by two-digit numbers.					
	3.4	I can accurately divide a 5-digit number by a 1-digit number.	$49,762 \div 6 =$				
	4.1	I can factor all the numbers from 1 – 100.	In how many distinct ways can you write 60 as a product of two numbers?				
	4.2	I can explain what a prime number is, and list all the prime numbers from 1 –100.	List all the distinct prime factors of 264.				



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Fourth Grade- Mathematics

#	 Number Sense Decimal numbers	Problems or Examples 				
1.1	I can read and write decimal numbers up to the thousandths place.					
1.2	I can order and compare decimal numbers of tenths and hundredths and place them on a number line.					
2.1	I can add and subtract decimal numbers to the hundredths place.	Solve $55.73 - 48.25 =$				
2.2	I can round hundredths to tenths or the nearest whole number and decide if the answer is reasonable.	Round the answer above.				

I CAN DO THIS!
Fourth Grade- Mathematics

	#	 <h2 style="text-align: center;">Number Sense Fractions</h2>	Problems or Examples 				
	1.5	I can explain that a fraction is a number that shows part of a whole or part of a set. I can draw and write equivalent fractions.					
	1.6	I can write tenths and hundredths in decimal and fraction notations and know the fraction and decimal equivalents for halves and fourths.	$1/2 = 0.5$ or $.50$; $7/4 = 1 \frac{3}{4} = 1.75$				
	1.7	I can write the fraction represented by a drawing of parts of a figure; represent a given fraction by using drawings; and relate a fraction to a simple decimal on a number line.	<p>Which number represents the shaded part of the figure? (Adapted from TIMSS gr. 4, M-5)</p> <ol style="list-style-type: none"> 1. 2.8 2. 0.5 3. 0.2 4. 0.02 				

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Fourth Grade- Mathematics

	#	 Number Sense Fractions	Problems or Examples 				
	1.9	I can use a number line to compare the value of fractions, mixed numbers, and decimals relative to each other.	True or false? 1. $1/4 > 2.54$ 2. $5/2 < 2.6$ 3. $12/18 = 2/3$ (Note the equivalence of fractions.) 4. $4/5 < 13/15$				

I CAN DO THIS!
Fourth Grade- Mathematics



Algebra and Functions

Problems or Examples



	#						
	1.1	I can use letters, boxes, or other symbols to stand for the variable in simple expressions or equations.	<p>Tanya has read the first 78 pages of a 130-page book.. Give the number of the sentence that can be used to find the number of pages Tanya must read to finish the book. (Adapted from TIMSS gr. 4, I-7).</p> <ol style="list-style-type: none"> 1. $130 + 78 = \underline{\quad}$ 2. $\underline{\quad} - 78 = 130$ 3. $130 - 78 = \underline{\quad}$ 4. $130 - \underline{\quad} = 178$ 				
	1.2	I know how to solve expressions that have parentheses.	<p>Evaluate the two expressions: $(28-10) - 8 = \underline{\quad}$ and $28 - (10 - 8) = \underline{\quad}$.</p>				
	1.3	I can use parentheses in expressions with more than 2 terms and different operations.	<p>Solve $(3 \times 12) - [(24/6) + 8] = ?$ Solve $([(18+31)/7] + 5) \times 9 = ?$</p>				
	1.4	I can solve problems using formulas, like area = length x width or $A = lw$.	<p>Maria and her sister, Louisa, leave home at the same time and ride their bicycles to school 9 kilometers away. Maria rides at a rate of 3 kilometers in 10 minutes. How long will it take her to get to school? Louisa rides at a rate of 1 kilometer in 3 minutes. How long will it take her to get to school? Who arrives first?</p>				

I CAN DO THIS!
Fourth Grade- Mathematics





Algebra and Functions

Problems or Examples





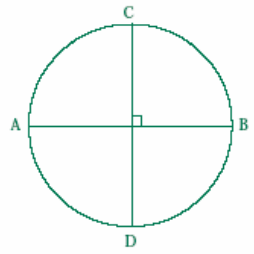
	#		Problems or Examples				
	1.5	I know that an equation with 2 variables, like $y = 3x + 5$, means I will figure out the 2 nd number after the first number is given.	My plane was supposed to leave San Francisco at 8:42 a.m. and arrive in Los Angeles at 9:55 a.m. But it started 11 minutes late, and to make up for lost time, the pilot increased the speed and shortened the flight time to 58 minutes. What time did I arrive in Los Angeles? (This problem also applies to Mathematical Reasoning Standard 1.1.)				
	2.1	I know that equals added to equals are equal.	What is the remainder when 1,200,354,003 is divided by 5?				
	2.2	I know that equals multiplied by equals are equal numbers and not odd numbers.					

I CAN DO THIS!
Fourth Grade- Mathematics



#	 Measurement and Geometry	Problems or Examples 				
1.1	I can use appropriate units (cm, in, yard, meter, km, mile) to measure the area of rectangular shapes.	Football field – yards Soccer field - meters				
1.2	I can show that rectangles that have the same area can have different perimeters and rectangles with the same perimeter can have different areas.	Given 12 square tiles, all the same size, describe all the rectangles you can that use all the tiles. Find the perimeter of each rectangle.				
1.3	I can understand that rectangles that have the same perimeter can have different areas.	Is the area of a 45 x 55 rectangle (in cm^2) smaller or bigger than that of a square with the same perimeter? Draw a rectangle whose perimeter is 40 and whose area is less than 20.				
1.4	I can use formulas to calculate the perimeters and areas of rectangles.	The length of a rectangle is 6 cm, and its perimeter is 16 cm. What is the area of the rectangle in square centimeters? (Adapted from TIMSS gr. 8, K-5)				
2.1	I can draw 10 points on a graph of the equation $y=3x$ and connect them in a line.					
2.2	I know that the length of the horizontal line segment equals the difference of the x-coordinates.	What is the length of the line segment joining the points (6, -4) and (21, -4)?				

I CAN DO THIS!
Fourth Grade- Mathematics



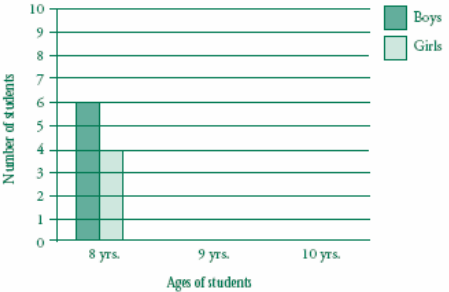
#	 <h2 style="text-align: center;">Measurement and Geometry</h2>	<h3 style="text-align: center;">Problems or Examples</h3> 				
2.3	I know that the length of the vertical line segment equals the difference of the y-coordinates.	What is the length of the line segment joining the points (121, 3) to (121, 17)?				
3.1	I can identify lines that are parallel and perpendicular.	Identify parallel and perpendicular lines in a basketball court.				
3.2	I can identify the radius and diameter of a circle.	Find the radius and diameter of the dodgeball circle in the playground.				
3.3	I can identify congruent figures.					
3.4	I can identify figures that have bilateral and rotational symmetry.	Craig folded a piece of paper in half and cut out a shape along the folded edge. Draw a picture to show what the cutout shape will look like when it is opened up and flattened out. Let AB, CD be perpendicular diameters of a circle, as shown. If we reflect across the line segment CD, what happens to A and what happens to B under this reflection?				





I CAN DO THIS!
Fourth Grade- Mathematics

	#	 Measurement and Geometry	Problems or Examples 				
	3.5	I can state the definitions of a right angle, acute angle, and obtuse angle. I can draw on a circle where to find 90, 180, 270, and 360 and match them up with 1/4, 1/2, 3/4 and a full turns.					
	3.6	I can describe and make models of geometric solids, including making the patterns to build each solid. I can identify the number of faces, edges, and vertices each solid has.					
	3.7	I can state a definition for each of the kinds of triangles.	Assume that the sum of the length of any two sides of a triangle is greater than the length of the third side. If the lengths of the sides of a triangle are required to be whole numbers, how many such triangles are there with a perimeter of 14"? List all of them.				
	3.8	I can state a definition for each of the kinds of quadrilaterals.	Explain which of the following statements are true and why. <ol style="list-style-type: none"> 1. All squares are rectangles. 2. All rectangles are squares. 3. All parallelograms are rectangles. 4. All rhombi are parallelograms. 5. Some parallelograms are squares. 				



I CAN DO THIS!
Fourth Grade- Mathematics

	 Statistics, Data Analysis, and Probability	Problems or Examples 																
	1.1 I can make up survey questions to collect data and display it on coordinate graphs, tables, charts and number lines.	<p>The following table shows the ages of the girls and boys in a club. Use the information in the table to complete the graph for ages 9 and 10. (Adapted from TIMSS gr. 4, S-1).</p> <table border="1" data-bbox="1136 618 1581 745"> <thead> <tr> <th>Ages</th> <th>Number of Girls</th> <th>Number of Boys</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>4</td> <td>6</td> </tr> <tr> <td>9</td> <td>8</td> <td>4</td> </tr> <tr> <td>10</td> <td>6</td> <td>10</td> </tr> </tbody> </table> 	Ages	Number of Girls	Number of Boys	8	4	6	9	8	4	10	6	10				
Ages	Number of Girls	Number of Boys																
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	1.2 I can identify the mode, median and outliers for numerical data sets.																	



I CAN DO THIS!
Fourth Grade- Mathematics

	 Statistics, Data Analysis, and Probability	Problems or Examples 				
1.3	I can write statements about graphs and tables to explain them. I can compare different graphs to solve problems and answer questions.					
2.1	I can list all possible outcomes for probability problems in an organized way.	Nine identical chips numbered 1 through 9 are put in a jar. When a chip is drawn from the jar, what is the probability that it has an even number? (Adapted from TIMSS gr. 8, N-18).				
2.2	I can explain and show with numbers the results of probability situations.					
2.3	I can communicate my math thinking in different ways, using models, diagrams, tables, charts, graphs, symbols, numbers, and words.					
2.4	I can clearly explain and justify my solutions using mathematical vocabulary and symbols, both written and oral.					
2.5	I know when an exact answer is needed and when it is better to estimate.					
2.6	I can calculate accurately and check the reasonableness of my answer by rereading the original problem.					

I CAN DO THIS!
Fourth Grade- Mathematics

#	 Mathematical Reasoning	Problems or Examples 				
1.1	I can identify when a word problem doesn't have enough information to solve it, or has unimportant information. I can also explain which information in the word problem is the most important.	My plane was supposed to leave San Francisco at 8:42 a.m. and arrive in Los Angeles at 9:55 a.m. But it started 11 minutes late, and to make up for lost time, the pilot increased the speed and shortened the flight time to 58 minutes. What time did I arrive in Los Angeles?				
1.2	I can decide when and how to break a problem into simpler parts.					
2.1	I can use estimation to prove if an answer is reasonable.	Sam, who is 6 years old, likes vanilla ice cream with his apple pie. Sam said that $\frac{1}{3}$ of an apple pie is less than $\frac{1}{4}$ of the same pie. Is Sam correct in his estimate? Why? (Adapted from TIMSS gr. 4, V-1).				
2.2	I can use strategies from simple problems to help solve more difficult problems.					
2.3	I can communicate my math thinking in different ways, using models, diagrams, tables, charts, graphs, symbols, numbers, and words.					
2.4	I can clearly explain and justify my solutions using mathematical vocabulary and symbols, both written and oral.					

I CAN DO THIS!
Fourth Grade- Mathematics

	#	 Mathematical Reasoning	Problems or Examples 				
	2.5	I know when an exact answer is needed and when it is better to estimate.					
	2.6	I can calculate accurately and check the reasonableness of my answer by rereading the original problem.					
	3.1	I can check if my problem solution makes any sense.					
	3.2	I can tell how I came up with my answer and explain how can I solve similar problems.					
	3.3	I can develop generalizations of the results obtained and apply them in other circumstances.					