

4

Math 4 Standard Components
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Component	Component Descriptions		
4NS 1.1.0*	Read and write whole numbers in the millions.	1,2 ^w ,3	3
4NS 1.2.1*	Order and compare whole numbers.		2
4NS 1.2.2*	Order and compare decimals to two decimal places.	4,5	
4NS 1.3.0*	Round whole numbers through the millions to the nearest ten, hundred thousand, ten thousand, or hundred thousand.	6,7,8	2
4NS 1.4.0*	Decide when a rounded solution is called for and explain why such a solution may be appropriate.		N/A
4NS 1.5.1	Explain fractions as part of a whole.	9	
4NS 1.5.2	Explain fractions as parts of a set.		$\frac{1}{2}$
4NS 1.5.3	Explain fractions as division by a whole number.	10	
4NS 1.5.4	Explain Fraction Equivalents		
4NS 1.6.1	Write tenths and hundredths in decimal notation.		
4NS 1.6.2	Write tenths and hundredths in fraction notation.	11	$\frac{1}{2}$
4NS 1.6.3	Write fraction and decimal equivalents for halves and fourths.		
4NS 1.7.1	Write a fraction represented by a drawing of parts of a figure.	12	
4NS 1.7.2	Represent a given fraction by using drawings.		1
4NS 1.7.3	Relate a fraction to a simple decimal on a number line.		
4NS 1.8.0*	Use concepts of negative numbers (e.g., on a number line, counting, in temperature, in "owing".)	13,14 ^g ,15,16 ^w ,17	3
4NS 1.9.1*	Identify on a number line the relative position of positive fractions.	18 ^g , 20 ^g ,22 ^g	
4NS 1.9.2*	Identify on a number line the relative position of mixed numbers.	19 ^g	3
4NS 1.9.3*	Identify on a number line positive decimals to two decimal places.	21 ^g	
4NS 2.1.1	Estimate and compute the sum or difference of whole numbers.	23 ^w	
4NS 2.1.2	Estimate and compute the sum or difference of positive decimals to two decimal places.	24	1
4NS 2.2.0	Round two-place decimals to one decimal or to the nearest whole number and judge the reasonableness of the rounded answer.	25 ^w ,26 ^w	$\frac{1}{2}$

4

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4NS 3.1.0*	Demonstrate an understanding of, and the ability to use, standard algorithms for the addition and subtraction of multi-digit numbers.	27,28,29 ^w	3
4NS 3.2.1*	Demonstrate an understanding of, and the ability to use, standard algorithms for multiplying a multi-digit by a two-digit number.	32	
4NS 3.2.2*	Demonstrate an understanding of, and ability to divide a multi-digit number by a one-digit number.	30	3
4NS 3.2.3*	Use relationships (between multiplication and division) to simplify computations and to check results.	31 ^w	
4NS 3.3.0*	Solve problems involving multiplication of multi-digit numbers by two-digit numbers.	33 ^w ,34 ^w ,35 ^w ,36 ^w ,37 ^w	3
4NS 3.4.0*	Solve problems involving division of multi-digit numbers by one-digit numbers.	38 ^w ,39 ^w ,40 ^w ,41,42,43 ^w	3
4NS 4.1.0	Understand that many whole numbers break down in different ways (e.g. $12 = 4 \times 3 = 2 \times 6 = 2 \times 2 \times 3$).	44	$\frac{1}{2}$
4NS 4.2.0*	Know the numbers such as 2, 3, 5, 7, and 11 do not have any factors except 1 and themselves and that such numbers are called prime numbers.	45,46	2
4AF 1.1.0	Use letters, boxes, or other symbols to stand for any number in simple expressions or equations (e.g., demonstrate an understanding and the use of the concept of a variable).	47,48	1
4AF 1.2.1	Simplify numeric expressions that now use parenthesis.	49,51,52,53,54	5
4AF 1.2.2	Evaluate algebraic expressions that now use parenthesis.	50	
4AF 1.3.0	Order of operations w/out exponents.	55, 56 ^w , 57	3
4AF 1.4.1	Use and interpret the area formula to answer questions about quantities and their relationships.	58	
4AF 1.4.2	Use and interpret the perimeter formula to answer questions about quantities and their relationships.		1
4AF 1.5.0	Understand that an equation such as $y = 3x+5$ is a prescription for determining a second number when a first number is given.	59,60,61,62	2
4AF 2.1.0	Know and understand that equals added to equals are equal.	63,64, 65 ^w , 66	3
4AF 2.2.0	Know and understand that the equals multiplied by equals are equal.	67,68,69,70	3
4MG 1.1.0	Measure the area of rectangular shapes by using appropriate units, such as square feet.	71 ^{wg}	$\frac{1}{2}$
4MG 1.2.0	Recognize that rectangles that have the same area can have different perimeters.	72,73	$\frac{1}{2}$
4MG 1.3.0	Recognize that rectangles that have the same perimeter can have different areas.	74	$\frac{1}{2}$

4

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[Release Test Questions 2009](#)
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4MG 1.4.1	Understand and use formulas to solve problems involving perimeters of rectangles and squares.	76	
4MG 1.4.2	Understand and use formulas to solve problems involving areas of rectangles and squares.		1/2
4MG 1.4.3	Use formulas (from MG 1.4.1) to find the areas of more complex figures by dividing the figures into basic shapes.	75	
4MG 2.1.0	Draw the points corresponding to linear relationships on graph paper (e.g., draw 10 points on the graph of the equation $y=3x$ and connect them using a straight line).	77 ^g	2
4MG 2.2.0	Understand that the length of a horizontal line segment equals the difference of the x-coordinates.	78 ^g	2
4MG 2.3.0	Understand that the length of a vertical line segment equals the difference of the y-coordinates.	79 ^g , 80 ^g , 81	2
4MG 3.1.1	Identify lines that are parallel.	82 ^g	1
4MG 3.1.2	Identify lines that are perpendicular.		
4MG 3.2.0	Identify radius and diameter of a circle.	83 ^g	1
4MG 3.3.0	Identify congruent figures.	84 ^g	1/3
4MG 3.4.0	Identify figures that have bilateral and rotational symmetry.	85 ^g	1/3
4MG 3.5.1	Know that definitions of a right angle, an acute angle, and an obtuse angle.	86 ^g	1/3
4MG 3.5.2	Understand that 90° , 180° , 270° , and 360° are associated respectively with $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, and full turns.		
4MG 3.6.1	Visualize, describe, and make models of geometric solids (e.g., prisms, pyramids) in terms of the number and shape of the faces, edges, and vertices.		1/3
4MG 3.6.2	Interpret two-dimensional representations of three-dimensional objects and draw patterns (of faces) for a solid that, when cut and folded, will make a model of the solid.	87, 88 ^g	
4MG 3.7.0	Know the definition of different triangles (equilateral, isosceles, scalene) and identify their attributes.	89 ^w	1/3
4MG 3.8.0	Know the definition of different quadrilaterals (e.g., rhombus, square, rectangle, parallelogram, and trapezoid).	90	1/3
4PS 1.1.0	Formulate survey questions; systematically collect and represent data on a number line; and coordinate graphs, tables, and charts.	91 ^g , 92 ^g	1
4PS 1.2.0	Identify the mode(s) for sets of categorical data and the mode(s), median, and any apparent outliers for numerical data sets.	93	2/3
4PS 1.3.0	Interpret one- and two-variable data graphs to answer questions about a situation.	94 ^{wg}	1

4

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4PS 2.1.0	Represent all possible outcomes for a simple probability situation in an organized way (e.g., tables, grids, tree diagrams).		2/3
4PS 2.2.0	Express outcomes of experimental probability situations verbally and numerically (e.g., 3 out of 4; $\frac{3}{4}$).	95 ^w .96 ⁹	2/3
4MR 1.1.0	Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, sequencing and prioritizing information and observing patterns.		E
4MR 1.2.0	Determine when and how to break a problem into simpler parts.		E
4MR 2.1.0	Use estimation to verify the reasonableness of calculated results.		E
4MR 2.2.0	Apply strategies and results from simpler problems to more complex problems.		E
4MR 2.3.0	Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.		E
4MR 2.4.0	Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.		E
4MR 2.5.0	Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree and accuracy.		E
4MR 2.6.0	Make precise calculations and check the validity of the results from the context of the problem.		E
4MR 3.1.0	Evaluate the reasonableness of the solution in the context of the original situation.		E
4MR 3.2.0	Note the method of deriving the solution and demonstrate a conceptual understanding of the derivation by solving similar problems.		E
4MR 3.3.0	Develop generalizations of the results obtained and apply them in other circumstances.		E