

**CORRELATIONS
COMMON CORE STATE STANDARDS (CCSS) FOR MATHEMATICS
SERIES YABISÍ (SANTILLANA) – FIFTH GRADE**

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Operations and Algebraic Thinking 5.OA				
Write and interpret numerical expressions.				
1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	274-275, 282-283	248-249, 256-257	92, 95	
2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. <i>For example, express the calculation "add 8 and 7, then multiply by 2" as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product.</i>	274-275, 282-283	248-249, 256-257	92, 95-96	
Analyze patterns and relationships.				
3. Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. <i>For example, given</i>	N/A			

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<i>the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.</i>				
Number and Operations in Base Ten 5.NBT				
Understand the place value system.				
1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.	54-55	36-37	20	
2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.	82-83, 96-97, 108-109	62-63, 76-77, 88-89	30-31	
3. Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form,	54-57, 69, 72	36-39, 51, 54	14-17, 19-21	<i>Lectura y escritura: 10</i>

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e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$. b. Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.				
4. Use place value understanding to round decimals to any place.	58-59	40-41	15, 19	
Perform operations with multi-digit whole numbers and with decimals to hundredths.				
5. Fluently multiply multi-digit whole numbers using the standard algorithm.	78-79, 92	58-59, 72	20, 22-23, 26	
6. 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.	98-101	78-81	32-33	
7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value,	60-65, 84-85, 91, 102-105, 118	42-47, 64-65, 71, 82-85, 98	18-19, 2-25, 27-28, 34-35	

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properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.				
Number and Operations— Fractions 5.NF				
Use equivalent fractions as a strategy to add and subtract fractions.				
1. 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. <i>For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$. (In general, $a/b + c/d = (ad + bc)/bd$.)</i>	146-147, 150-153, 163, 166, 168	126-127, 130-133, 143, 146, 148	49, 51-52	
2. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. <i>For example, recognize an incorrect result $2/5 + 1/2 = 3/7$, by observing that $3/7 < 1/2$.</i>	132-133, 147, 151, 153, 162	112-113, 127, 131, 133, 142	49, 51, 44	<i>Proyectos y equipo: 7-8</i>

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Apply and extend previous understandings of multiplication and division to multiply and divide fractions.				
<p>3. Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p> <p><i>For example, interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?</i></p>	124-125, 128-129, 156-157	104-105, 108-109, 136-137	40, 42, 46, 54	<i>Lectura y escritura: 6-9, 12</i>
<p>4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> <p>a. Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. <i>For example, use a visual fraction model to show $(2/3) \times 4 = 8/3$, and create a story context for this equation. Do the</i></p>	124, 128-129, 154-155	104, 108-109, 134-135	40-42, 53	

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<p><i>same with $(2/3) \times (4/5) = 8/15$. (In general, $(a/b) \times (c/d) = ac/bd$.)</i></p> <p>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.</p>				
<p>5. Interpret multiplication as scaling (resizing), by:</p> <p>a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.</p> <p>b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of</p>	129	109		

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multiplying a/b by 1.				
6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.	154-155	134-135	53	
<p>7. 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. <i>For example, create a story context for $(1/3) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.</i></p> <p>b. Interpret division of a whole number by a unit fraction, and compute such quotients. <i>For example, create a story context for $4 \div (1/5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.</i></p> <p>c. Solve real world problems involving division of unit fractions by non-zero</p>	146-157, 161	136-137, 141	54, 57	

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<p>whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. <i>For example, how much chocolate will each person get if 3 people share $\frac{1}{2}$ lb of chocolate equally? How many $\frac{1}{3}$-cup servings are in 2 cups of raisins?</i></p>				
<p>Measurement and Data 5.MD</p>				
<p>Convert like measurement units within a given measurement system.</p>				
<p>1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use the conversions in solving multi-step, real world problems.</p>	172-181, 184	152-161, 164	58-63	<p><i>Proyectos y equipo: 15</i></p> <p><i>Lectura y escritura: 11</i></p>
<p>Represent and interpret data.</p>				
<p>2. Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots. <i>For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.</i></p>	N/A			

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Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.				
3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement. a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume. b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.	302-303, 306, 312	276-277, 280, 286	104-105	
4. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.	302-303, 311-312	276-277, 280, 285-286	104-105	
5. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height	302-303, 306, 311-312	276-277, 280, 285-286	104-105	

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<p>by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.</p> <p>b. Apply the formulas $V = l \times w \times h$ and $V = b \times h$ 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.</p> <p>c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.</p>				
Geometry 5.G				
Graph points on the coordinate plane to solve real-world and mathematical problems.				
<p>1. Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and</p>	236-237, 243	214, 221	81, 85	

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the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x -axis and x -coordinate, y -axis and y -coordinate).				
2. 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.	243-244	221-222	85	
Classify two-dimensional figures into categories based on their properties.				
3. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. <i>For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.</i>	196-197	176-177		
4. Classify two-dimensional figures in a hierarchy based on properties.	196-199	176-179	67-67, 74	
Deleted Content Grade 5				
Analyze the magnitude of a digit on the basis of its place value, using whole numbers and decimal numbers through thousandths.	26-27, 28-31	10-11, 14-15	6-8	

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Apply an algorithm to divide whole numbers fluently.	N/A			
Understand the relationship among the divisor, dividend and quotient.	96	76		
Classify numbers as prime, composite, or neither.	110-111	90-91	37	
Generate strategies to find the greatest common factor and the least common multiple of two whole numbers.	130-131, 137	110-111	43	
Apply divisibility rules for 3, 6, and 9.	N/A			
Analyze patterns and functions with words, tables and graphs.	N/A			
Identify applications of commutative, associative, and distributive properties with whole numbers.	78-79	58-59	20	
Analyze situations that show change over time.	N/A			
Use appropriate tools and units to measure objects to the precision of one-eighth inch.	N/A			
Use a protractor to measure angles from 0 to 180 degrees.	194-195	174-175	66	
Apply formulas to determine the perimeters and areas of triangles,	292-299	266-273	98-101	<i>Lectura y escritura: 5</i>

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rectangles, and parallelograms.				
Apply procedures to determine the amount of elapsed time in hours, minutes, and seconds in 24-hour period.	N/A			
Understand the relationship between Celsius and Fahrenheit temperature scales.	N/A			
Design a mathematical investigation to address a question.	249	227		
Analyze how data-collection methods affect the nature of the data set.	224-229	202-207	76-79	
Apply procedures to calculate the measures of central tendency (mean, median, and mode) and interpret the meaning and application of these measures.	238-239	216-217	77	<i>Proyectos y equipo: 12</i>
Represent the probability of a single-stage event in words and fractions.	240-241	218-219	83	
Conclude by the sum of the probabilities of the outcomes of an experiment must equal 1.	240	218		
Compare the angles, side lengths and perimeters of congruent shapes.	N/A			
Classify shapes as congruent.	200-201	180-181	69	

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Translate between two-dimensional representations and three-dimensional objects.	208-209	188-189	73	
Predict the results of multiple transformations.	202-205	182-185	70-71	
Analyze shapes to determine line and rotational symmetry.	204-205	184-185	71	