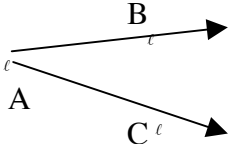
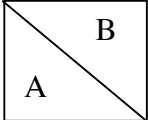
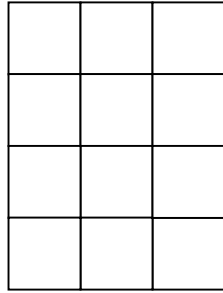
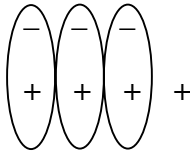


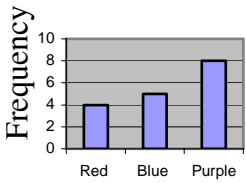
GLOSSARY

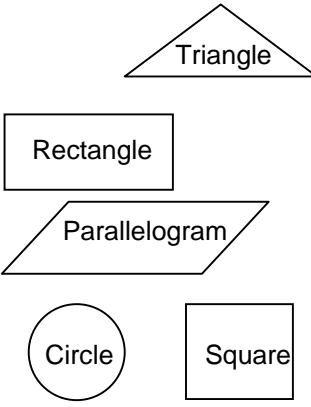
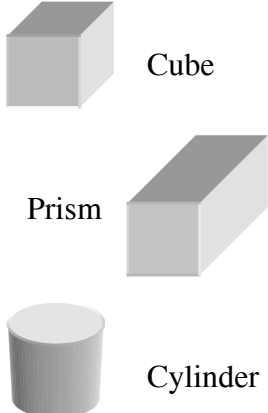
Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
1-P (n) (1 minus Probability of an Event) <i>(1 menos Probabilidad de un evento)</i>	The probability of an event not occurring; the probability (P) of an event not occurring can be determined by subtracting the probability from 1.	$(1 - P)$ $(1 - P) = \sim P$ $\sim P$ (read as “not P”) represents the probability of not occurring. $P + \sim P = 1$ The probability of occurring plus the probability of not occurring equals 1.	The likelihood and unlikelihood of events are described and reasoned through the use of probability terms.	6SDP 3.3
ABSOLUTE VALUE (n) <i>Valor absoluto</i>	Absolute value is the distance of a number from zero on a number line.	$ 9 = 9$ $ -9 = 9$ or the <i>absolute value</i> of negative 9 equals 9	Use of accurate mathematical vocabulary and academic language is essential for developing students’ mathematical proficiency.	7NS 2.5 AI 3.0
ADD (v) <i>Suma</i>	To combine two or more numerical values.	$4 + 8 = 12$ add 4 and 8 $10 + -4 = 6$ $\frac{1}{2} + \frac{1}{3} = \frac{5}{6}$	Variables, numbers, or operations can be used to represent mathematical problems.	7NS 1.2 6NS 2.4
ADDITION (n) <i>Adición</i>	The mathematical operation of combining.	$4 + 6 = 10$ The addition of 4 and 6 is 10. $10 + -4 = 6$ $\frac{1}{2} + \frac{1}{3} = \frac{5}{6}$	Variables, numbers, or operations can be used to represent mathematical problems.	4NS 2.0 4NS 3.1 5NS 2.3
ALGEBRAIC EXPRESSION (n) <i>Expresión algebraica</i>	A mathematical phrase in which only numbers, variables, and operations are contained or used; composed of coefficients, variables, exponents, and constants; involves no equal sign.	$4x + 5$ A quantity or a value can be represented by a number such as 12 or by values and operations such as $10 + 2$; $20 - 8$; $5x + 2$	Variables, numbers, and operations can be used to represent mathematical problems.	7AF 1.2 6AF 1.2

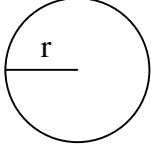
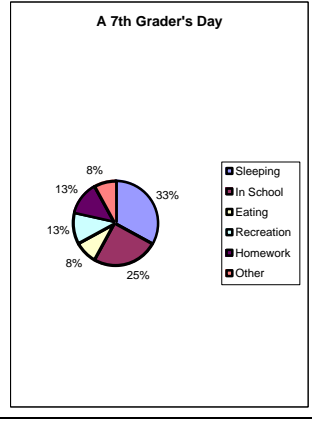
Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
ALGEBRAIC ORDER OF OPERATIONS (n) <i>Orden algebraico de operaciones</i>	The agreed upon sequence in which the mathematical processes are performed; From left to right: 1. Parentheses 2. Exponents 3. Multiply or divide 4. Add or subtract	In the <i>algebraic order of operation</i> , always solve within the parentheses first. Simplify the expressions. $5(3^2 + 2) - 7$ $5(9 + 2) - 7$ $5(11) - 7$	Variables, numbers, or operations can be used to represent mathematical problems.	6AF 1.3
ALGEBRAIC TECHNIQUES (n) <i>Técnicas algebraicas</i>	The skills used in solving algebraic problems; often more than one way to solve a problem; various techniques can be employed.	One <i>algebraic technique</i> is to graph an equation by converting it to slope-intercept form. Ex. Standard form $3x + y = 4$ Slope-intercept form: $y = -3x + 4$	Variables, symbols, numbers or operations can be used to represent numbers, expressions and equations.	AI 15.0 7MR 2.3
ALGEBRAIC TERMINOLOGY (n) <i>Vocabulario algebraico</i>	Words used to study algebra with specific mathematical definitions.	Examples of <i>algebraic terminology</i> are: variables, expressions, coordinates, coefficient, etc.	Algebra has a language of its own.	7AF 1.4
ALGEBRAICALLY (adv) <i>Algebraicamente</i>	To solve or represent a problem using algebraic techniques.	Solve the system of equations <i>algebraically</i> $x = 10$ $x + y = 4$ Substitute $x = 10$ into the second equation and solve for y , $10 + y = 4$ $y = -6$ The solution is $x = 10$ and $y = -6$ or $(10, -6)$.	Variables, symbols, numbers or operations can be used to represent numbers, expressions and equations.	AI 9.0

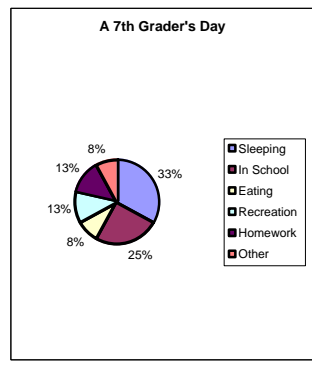
Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
ANALYZE (v) <i>Analiza</i>	To examine or evaluate; prior to solving a problem: Read the problem with a goal of determining what question is being asked, what information is given and what information is needed to solve the problem.	<ul style="list-style-type: none"> - Read the problem. - State the question in your own words. - Underline numerical information and mathematical terminology. - Organize the information in a chart. - Consider possible approaches to solving the problem. - Look for patterns. 	Solving a problem requires critical thinking.	7MR 1.1
ANGLES (n) <i>Ángulo</i>	An angle is a geometric figure, 1) that is created by two line segments or rays that share a common endpoint (A), 2) that can be found within polygons and, 3) is formed by intersecting lines.	 <p style="text-align: center;"> $\angle BAC$ or $\angle CAB$ Three points on a plane define an <i>angle</i>. </p>	Geometrical figures can be classified by their angle, shape, and measure.	7MG 3.4
APPLICATIONS (n) <i>Aplicación</i>	Prior knowledge transferred to new situations.	<p>“I know that $\frac{1}{2}$ of a dollar is 50 cents and I know that $\frac{1}{2} = 50\%$. So, 50% of a dollar must be 50 cents.</p>	Applying prior knowledge to a new situation promotes a deeper understanding.	7NS 1.3
APPLY (v) <i>Aplica</i>	Transferring prior knowledge to a new situation.	<p>The area of the square below is 16 cm^2. If all four sides are equal, find the area of section A below,</p>  <p>This can be solved by applying prior knowledge.</p>	Applying prior knowledge to a new situation promotes a deeper understanding.	6AF 1.3 7AF 1.3 AI 15.0 7MR 3.3

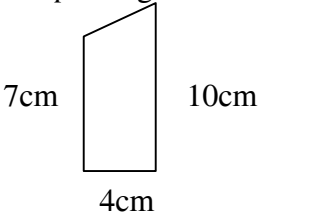
Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
APPROXIMATE NUMBER (n) <i>Número aproximado</i>	An estimate that is close to the exact value; useful when determining if a solution is reasonable or when working with large or very small values.	$20,029 = 2.0 \times 10^4$ The value written in scientific notation is an approximation of 20,029.	Variables, symbols, numbers or operations can be used to represent a number, expressions and equations.	7NS 1.1
AREA (n) <i>Área</i>	The number of square units enclosed by a geometric figure; a form of measurement used to describe two-dimensional space.	Find the <i>area</i> . <div style="text-align: center;"> 3  4 </div> There are 12 square units enclosed within the rectangle. The area is 12 square units.	Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7MG 2.1 7MG 2.2 7MG 3.2
ARITHMETIC TECHNIQUES (n) <i>Técnicas aritméticas</i>	The skills used in solving arithmetic problems.	An example of an <i>arithmetic technique</i> that can be used when adding or subtracting positive and negative integers is to form and then remove zero pairs. $-3 + 4 = 1$ 	Variables, numbers, or operations can be used to represent mathematical problems.	7MR 2.3
ASSOCIATIVE PROPERTY (n) <i>Propiedad asociativa</i>	The answer of an expression will be the same regardless of how it is grouped when adding or multiplying.	<i>Associative property</i> of addition: $1 + (4 + 3) = (1 + 4) + 3$ <i>Associative property</i> of multiplication: $4(5 \times 3) = (4 \times 5)3$	Variables, numbers, or operations can be used to represent mathematical problems.	6AF 1.3 7AF 1.3

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
AVERAGE SPEED (n) <i>Promedio de rapidez</i>	A single number describing all the speeds in a set; typically refers to the mean, but sometimes refers to the median or mode.	Bob drives 30 mph for 1 hour and then 60 miles per hour for 2 hours, what is his <i>average speed</i> ? Unit of time rate 1 hour 30 mph 2 hour 60 mph 3 hour 60 mph <hr/> 3 hours 150 mph <i>Average speed is</i> $\frac{150}{3}$ mph. or <i>Average speed is</i> 50 mph.	Symbols can be used to compare expressions and/or numerical values.	7AF 4.2
BALANCE (n) <i>Balance</i>	The balance is the final amount of money in an account after a transaction.	Find the balance on Pam's savings account after she earned 2% annual interest on \$150. <i>Interest = (principal) (rate) (time)</i> $I = \$150 (.02) (1)$ $I = \$3.00$ Balance $\$150 + \$3 = \$153.00$	Financial terms demonstrate real life applications of mathematics.	7NS 1.7
BAR GRAPH (n) <i>Gráfica de barra</i>	A graph that summarizes data by using solid bars to represent a quantity or frequency, the longer or taller the bar, the greater the quantity.	Favorite Color  Color Of 18 students, 4 chose red as their favorite color.	Data is organized and analyzed in a variety of ways.	7SDAP 1.1 (See Statistics Terms**)

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
BASIC TWO-DIMENSIONAL SHAPES/FIGURES (n) <i>Figuras básicas de dos dimensiones</i>	Shapes such as a triangle, rectangle, parallelogram, circle or square.		Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7MG 2.1
BASIC THREE-DIMENSIONAL SHAPES/FIGURES (n) <i>Figuras básicas de tres dimensiones</i>	Shapes found in three dimensions such as prisms, cubes, and cylinders.		Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7MG 2.1
CALCULATE (v) <i>Calcula</i>	To give a numerical answer using mathematical operations and the order of operations.	If 12 boys out of 20 play baseball, <i>calculate</i> the percentage of boys who play baseball. $\frac{12}{20} = .60$ thus, 60% play baseball	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	6NS 1.4 7NS 1.6
CAPACITY (n) <i>Capacidad</i>	The amount a container can hold when filled represents its volume; the units of measure could be liters, quarts, pints etc.; can be thought of as volume.	One container can hold 1.5 liters of milk and another can hold 1200 milliliters of milk. Which has the larger <i>capacity</i> ?	Physical objects can be described by defined numerical values.	7MG 1.1

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
CENTIMETERS (n) <i>Centímetros</i>	A metric unit of length equal to 1/100 of a meter. <i>Centi-</i> is a prefix meaning 100, as in century is 100 years.	$1.2 \text{ m} = 120 \text{ cm}$	Composed of a base 10 system centered on the meter, liter, and gram.	7MG 1.1 7MG 2.4
CIRCLE (n) <i>Círculo</i>	A set of points all equidistant from a given point (the center) in a plane; a basic geometric figure that is not a solid object; it is only the outer edge, like a wheel.	 Formula for area is $A = \pi r^2$ where r is the radius of the <i>circle</i> . Circumference, or distance around the circle is $A = 2\pi r$.	The circle is a geometric figure defined by its attributes: radius, diameter, circumference, and area.	7AF 3.4 7MG 2.1
CIRCLE GRAPH (n) <i>Gráfica de círculo</i>	A visual representation of one variable that computes the percentage of each category and divides a circle into sectors that correspond to the computed percentages.		Data is organized and analyzed in a variety of ways.	7SDAP 1.1 (See Statistics Terms**)
CIRCUMFERENCE (n) <i>Circunferencia</i>	The perimeter of a circle; the distance around the circle; if a string is stretched around the outside of a circle, then straightened out and measured, the result is the circumference of the circle.	$C = 2\pi r$ or $C = \pi d$ where $C = \text{Circumference}$ $d = \text{diameter}$ and $r = \text{radius}$	The circle is a geometric figure defined by its attributes: radius, diameter, circumference, and area.	7AF 3.4

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
CLAIM (n) <i>Declaración</i>	A statement that is yet to be mathematically proven; also known as a conjecture; often, a “claim” is a statement that is backed by a set of data; given a set of data or a graphical display of a set of data, a student should be able to: 1. Make a reasonable claim that is true 2. Determine whether a stated claim is true or false.	Example of a true <i>claim</i> :  <p>Based on the circle graph above, more than half of a 7th grader’s day is spent sleeping or in school.</p>	Use of accurate mathematical vocabulary and academic language is essential for developing students’ mathematical proficiency.	6SDAP 2.5
COEFFICIENT (n) <i>Coeficiente</i>	The numerical factor of a term; when a variable lacks a coefficient, the coefficient is always 1.	$x + x + x = 3x$ 3 is the <i>coefficient</i> of the term $3x$. $3x^2 + 4x + 9$ 3 and 4 are coefficients.	Variables, symbols, numbers or operations can be used to represent a number, expressions, and equations.	7AF 1.4
COMMISSION (n) <i>Comisión</i>	A fee, usually a percentage of the sales or service, which is given to the person responsible for the sale; commission problems are comprised of: rate of commission, amount of commission and amount of sale.	A salesman receives a <i>5% commission</i> for any items he sells. If he sells \$400 worth of merchandise, what is his commission? Answer: $\$400 \times .05 = \20.00 \$20 is the commission.	Financial terms demonstrate real life applications of mathematics.	7NS 1.7
COMMON BASE (n) <i>Base en común</i>	Given two or more algebraic expressions with exponents, the expressions have a common base if the numbers or variables raised to the exponents are the same.	x^2 and x^6 have a <i>common base</i> (x) 3^2 and 3^5 have a <i>common base</i> (3) 2^4 and 6^4 do not have a <i>common base</i> .	Variables, symbols, numbers or operations can be used to represent a number, expressions and equations.	7NS 2.1

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
COMMON DENOMINATOR (<i>n</i>) <i>Denominador en común</i>	Given two or more fractions, a common denominator is a value that is evenly divisible by each of the numbers listed under the fraction bar.	Find a <i>common denominator</i> for $\frac{1}{2}$ and $\frac{2}{5}$. In other words, what is a number that is divisible by both 2 and 5 (the values on the bottom of each fraction)? Answers: 10, 20, 30...	Variables, symbols, numbers or operations can be used to represent a number, expressions, and equations.	6NS 2.4 7NS 2.2
COMMUTATIVE PROPERTY (<i>n</i>) <i>Propiedad conmutativa</i>	Two algebraic expressions can be added or multiplied in any order and the sum or product will remain the same; this property is only true for addition and multiplication, not for subtraction or division; the order of operations is important when applying the commutative property.	<i>Commutative property</i> of addition: $a + b = b + a$ <i>Commutative property</i> of multiplication: $ab = ba$ $5(x + 3) = (x + 3)5$	Variables, numbers, or operations can be used to represent mathematical problems.	6AF 1.3
COMPARE (<i>v</i>) <i>Compara</i>	To decide the relationship of two or more values or geometrical shapes.	<i>Compare</i> the following quantities and fill in the box with =, < or > 1 <input type="checkbox"/> 1 2 <input type="checkbox"/> 3 3 <input type="checkbox"/> 6	Symbols can be used to compare expressions and/or numerical values.	6NS 1.1 7NS 1.1 7 MG 1.1 7SDAP 1.1
COMPLEX (<i>adj</i>) <i>Complejo</i>	Comprised of two or more basic geometrical figures (circles, squares etc.)	Find the perimeter of the <i>complex</i> figure below.  Answer: 26cm Find the length of the unknown side of the figure by breaking up the figure into a rectangle and a triangle.	Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7MG 2.2

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
COMPOUND EVENT (n) <i>Evento compuesto</i>	More than one event that is being considered in the same question; or, an event made up of more than one simple event; drawing a picture (a tree diagram or a chart) can help to solve compound events.	How many different outcomes are there when a coin is flipped twice? List them. Answer: Four. HH, HT, TH, TT where H=heads and T=tails A tree diagram could be used for this example.	The likelihood and unlikelihood of events are described and reasoned through the use of probability terms.	6SDAP 3.1
COMPOUND INTEREST (n) <i>Interés compuesto</i>	Interest that is accrued on the original amount (principal) deposited and the interest that is added at each interval.	Steve deposits \$200 at an interest rate of 5%. The interest is compounded every 6 months. How much will Steve have in the account at the end of one year? Answer: After 6 months: $\$200 \times .05 = \10 in interest; $\$200 + \$10 = \$210$ total. After 6 more months: $\$210 \times .05 = \10.50 in interest; $\$210 + \$10.50 = \$220.50$	Financial terms demonstrate real life applications of mathematics.	7NS 1.7
COMPUTATION (n) <i>Computación</i>	The act, process, or method of using numerical operations.	Do the following <i>computation</i> : $5^4 =$ $5 \times 5 \times 5 \times 5 = 625$	Variables, numbers, or operations can be used to represent mathematical problems.	7NS 1.3
COMPUTE (v) <i>Calcula</i>	To determine by mathematics, especially by numerical methods; to determine the amount or number.	$2 + 3 \times 5 = 17$	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	5NS 1.3 7NS 1.7 AI 6.0 7MG 2.2 7MG 2.3 6SDAP 1.1 6SDAP 3.3