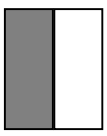
GLOSSARY

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
REPEATED DIVISION *(n)* *División repetida*	A way to define exponents or powers in which you divide a number repeatedly by the same divisor; used with negative exponents as the inverse operation of repeated multiplication.	3^{-3} = $\frac{1}{3^3} = 1 \div 3 \div 3 \div 3$ or as repeated multiplication $\frac{1}{3} \times \frac{1}{3} \times \frac{1}{3} = \frac{1}{27}$	Variables, numbers, or operations can be used to represent mathematical problems.	7AF 2.1
REPEATED MULTIPLICATION *(n)* *Multiplicación repetida*	A way to define exponents or powers in which you multiply a number by itself one or more times.	4^4 $4 \times 4 \times 4 \times 4$ is *repeated multiplication.*	Variables, numbers, or operations can be used to represent mathematical problems.	7AF 2.1 5NS 1.3
REPEATING DECIMAL *(n)* *Decimal que repite*	A decimal whose decimal digits eventually repeat in the same pattern with or without end.	Examples: 4.7373737373… 0.444444444	Numerical values can be represented by the position of a digit in a number.	7NS 1.5
REPRESENT *(v)* *Representa*	To show or symbolize something.	Write an equation that *represents* a verbal description. 2x + 3 Two times a number increased by three.	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	3NS 1.5 5NS 1.5 7AF 1.1 7AF 1.5 6SDAP 3.1 6SDAP 3.3 7SDAP 1.2
REPRESENTATION *(n)* *Representación*	An expression or symbol depicting something else.	All of these *representations* are equivalent: $\frac{1}{2}, \frac{5}{10}$, .5, 50% 	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	7NS 1.3

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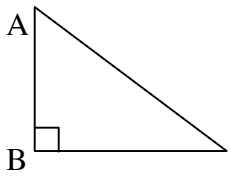
RESULT *(n)* *Resultado*	The outcome of an operation, situation, or action.	Solve the equations and verify the *results*. $2x = 10$ $x = 5$ $2(5) = 10$	Variables, symbols, numbers or operations can be used to represent a number, expressions and equations.	7AF 2.2 7AF 4.1 7MR 2.1 7MR 3.3
RIGHT TRIANGLE *(n)* *Triángulo recto*	A triangle with one right angle.	 $\measuredangle$ B = 90 degrees	Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7MG 3.3
ROOTS *(n)* *Raíces*	A number (x) when multiplied to itself a certain number of times will give you another number (y).	2 is the third root of 8. C $2 \times 2 \times 2 = 2^3 = 8$	Variables, symbols, numbers or operations can be used to represent a number, expressions and equations.	7AF 2.2
ROUND *(v)* *Redondea*	To find the nearest value of a given number based on a given place.	187 *rounded* to the nearest 10 is 190.	Variables, numbers, or operations can be used to represent mathematical problems.	4NS 1.3 5NS 1.1
SALE *(n)* *Venta*	An event at which goods or services are exchanged for money.	Retail *sales* usually involve a markup.	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	6NS 1.4

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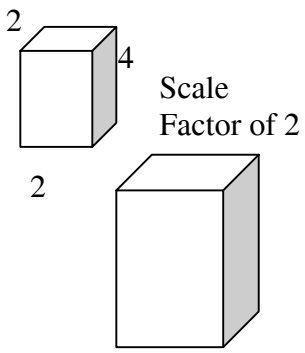
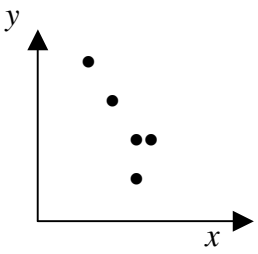
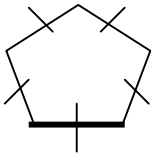
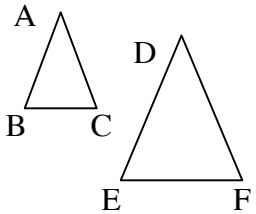
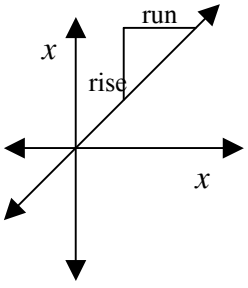
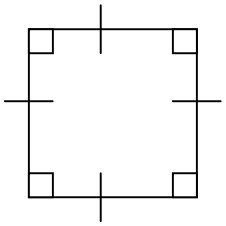
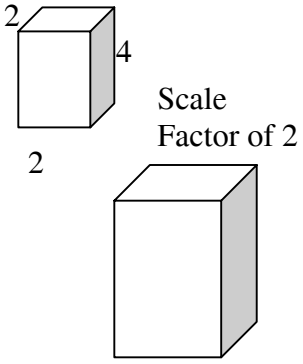
SAMPLE *(n)* (Random Sample, Systematic Sample, Convenience Sample, Unbiased Sample, Biased Sample) *Muestra*	A smaller part or portion of a whole; a set in which the data is examined or analyzed in order to make predictions.	The pollsters did a random *sampling* of the registered voters to predict who would be the next mayor.	Data is organized and analyzed in a variety of ways.	6SDAP 2.4 (See Probability Terms**)
SCALE *(n)* *Escala*	1. To duplicate an object that is larger or smaller than the original by a percentage or ratio. 2. A way of representing a larger distance in a proportional, but smaller illustration.	The map was drawn to scale to represent the neighborhood of the school.	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	7MG 1.2 7MG 2.4
SCALE FACTOR *(n)* *Factor escalar*	The ratio of any two corresponding lengths measured in two similar geometric figures.	 To find the volume of the larger box, multiply the volume of the small box (16) by the cube of the scale factor, ($2^3 = 8$), or the volume of the large box is 128.	Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7MG 2.3

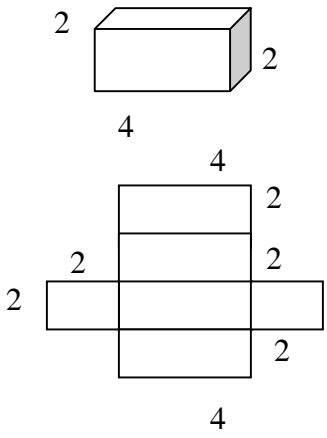
Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
SCATTERPLOT *(n)* *Gráfica de dispersión*	A graph that displays data points from an experiment where two related sets form ordered pairs.		There are various ways to display data on a graph.	7SDAP 1.2
SCIENTIFIC NOTATION *(n)* *Notación científica*	A shorthand way of writing large or small numbers using powers of 10; the number is shown as the product of two factors.	Examples include: 1,247,000,000,000 = 1.247×10^{12} $.0000089 = 8.9 \times 10^{-6}$	In mathematics, we often change forms to facilitate problem solving and computation.	7NS 1.1
SEQUENCE *(v)* *Poner en sequencia*	The arrangement of things or actions in a particular order.	*Sequence* the following numbers in numerical order: 8, 5, 4, 9, 1, 7, 6, 3, 2 Answer: 1, 2, 3, 4, 5, 6, 7, 8, 9	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	7MR1.1
SIDE *(n)* *Lado*	A line segment on a polygon.	The pentagon has 5 equal *sides.*  3 in.	Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	6NS 1.3 7MG 3.4 7MG 3.4
SIMILAR *(adj)* *Similar*	Same figure or shape, but not necessarily the same size; the corresponding angles are congruent and corresponding sides are proportional.	 △ ABC is *similar* to, △ DEF.	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	6NS 1.3

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
SIMPLE DECIMAL *(n)* *Decimal*	Decimals that extend to only one or two places; to the right of the decimal point (tenths or hundredths).	Subtract the following *simple decimal*: 42.65 - 10.02 Answer: 32.63	Numerical values can be represented by the position of a digit in a number.	4NS 2.0
SIMPLE FIGURE *(n)* *Figura sencilla*	Figures that are only one- or two-dimensional.	*Simple figures*  Line segment  	Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7MG 3.2
SIMPLE FRACTION *(n)* *Fracción sencilla*	Fractions in which the only common factor of the numerator and denominator is 1.	$\frac{2}{3}$, $\frac{1}{7}$, $\frac{5}{6}$ are *simple fractions* because the greatest common factor between the numerators and denominators is 1.	Rational numbers can be represented in different forms with different operations.	4NS 1.0
SIMPLE INTEREST *(n)* *Interés simple*	The interest paid on the principal, or the initial amount of money invested or borrowed.	The formula for *simple interest* is: I= p x r x t *Interest* (I) is equal to the product of the principal (p), rate (r), and time (t).	Financial terms demonstrate real life applications of mathematics.	7NS 1.7
SIMPLEST FORM *(n)* *Forma reducida*	When a fraction's numerator and denominator have a 1 as their greatest common factor; or when an expression no longer has any like terms.	$\frac{2}{6} = \frac{1}{3}$ $\frac{1}{3}$ is the simplest form 2x + 5x = 7x 7x is the simplest form.	In mathematics, we often change forms to facilitate problem solving and computation.	5NS 2.3
SIMPLIFY *(v)* *Simplifíca*	Combine like terms, reduce fractions to simplest form; apply all properties to make computations easier; to make something easier or less complicated.	I can *simplify* the fraction $\frac{5}{10}$ by dividing the numerator and denominator by 5. The reduced fraction would be $\frac{1}{2}$.	In mathematics, we often change forms to facilitate problem solving and computation.	7NS 2.3 7AF 1.3 7AF 2.1 AI 4.0

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
SITUATION *(n)* *Situación*	The general conditions or circumstances specific to a particular math problem.	Two different *situations:* 1) Use measurement to prove the triangle is a right triangle; 2) Use the Pythagorean Theorem to prove the triangle is a right triangle.	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	5NS 2.3 7AF 1.5 7MG 3.3 5SDAP 1.4 7MR 3.3
SKETCH *(v)* *Dibuja*	To draw or construct.	To solve the problem *sketch* the system of linear equations on a coordinate plane.	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	AI 9.0
SLOPE *(n)* *Pendiente*	The ratio of the vertical and horizontal change between two points; rise over run; change in y over change in x; often symbolized by the letter m in the equation y = mx + b (slope intercept form).	$(x, y) \quad (x_2, y_2)$ $\frac{y_2 - y_1}{y_2 - y_1} = \frac{\Delta y}{\Delta x} = m$ Find the slope of the two points (4, 8) and (12, 1). $\frac{1 - 8}{12 - 4} = \frac{-7}{8} = m$	Symbols can be used to compare expressions and/or numerical values.	AI 8.0
SLOPE OF A GRAPH/LINE *(n)* *Pendiente de la gráfica/ linea*	The slant at which a line measures in relation to the horizontal axis; it can be found by taking two points on the line and dividing the difference in the y-values by the difference in the x-values; it shows a constant ratio of vertical change to horizontal change.	The *slope of a line* can be defined as rise over run.  In a linear equation, in the form y = mx + b, m is equal to the *slope of the line (or graph).*	Point locations can be represented in a two dimensional plane.	7AF 3.3 7AF 3.4

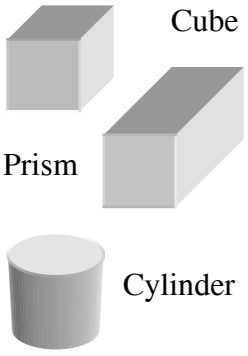
Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
SOLUTION *(n)* *Soluciones*	The correct answer; it makes the mathematical equation or inequality true.	Find the *solution* of the equation. $x + 3 = 5$ $x = 2$ 2 represents the *solution.*	Variables, numbers, or operations can be used to represent mathematical problems.	7AF 4.1 7MG 1.3
SOLUTION SET *(n)* *Conjunto de soluciones*	The set of values that make an equation or inequality true.	Find the *solution set* for x using integers. $x > 5$ {6, 7, 8…}	Variables, symbols, numbers or operations can be used to represent a number, expressions and equations.	AI 9.0
SOLVE *(v)* *Resuelve*	To find the correct answer to a question, problem, equation, or inequality by working it out.	*Solve* for x. $3x + 12 = 42$ $-\ 12 \quad -12$ $\frac{3x}{3} = \frac{30}{3}$ $x = 10$	Variables, numbers, or operations can be used to represent mathematical problems.	5NS 2.3 6NS 1.3 6NS 1.4 6NS 2.4 7NS 1.7 5AF 1.5 6AF 1.1 7AF 4.1, 2 AI 3.0, 5, 9 AI 10, 15 7MG 1.3 7MR 2.3
SPEED *(n)* *Rapidez*	The rate that something is moving and how far it travels in a given time.	The average *speed* on the highway is 60 mph. $\frac{60 \text{ miles}}{1 \text{ hour}}$	Physical objects can be described by defined numerical values.	7MG 1.3
SQUARE *(n)* *Cuadrado*	A quadrilateral with 4 equal sides, 4 right angles, 2 sets of opposite sides that are parallel, and two congruent diagonals that bisect each other and form right angles.	*Square* 	Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7NS 2.4 7MG 2.1 7MG 2.4

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
SQUARE OF SCALE FACTOR *(n)* *El cuadrado de un factor escalar*	The ratio of two corresponding sides of two similar figures raised to the 2nd power; represents the ratio of the areas of two similar figures.	 To find the surface area of the larger box, multiply the surface area of the small box (40) by the *square of the scale factor,* (2^2 = 4), or the surface area of the large box is 160 square units.	Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7MG 2.3
SQUARE ROOT *(n)* *Raíz cuadrada*	The square root of a number is a factor that when multiplied by itself (squared) results in the number.	$\sqrt{9} = 3$ $3^2 = 9$ 3 is the square root of 9.	Variables, symbols, numbers or operations can be used to represent a number, expressions and equations.	7NS 2.4
STANDARD ALGORITHM *(n)* *Algoritmo estándar*	A step-by-step mathematical procedure.	When solving a two-step equation be sure to follow the proper *standard algorithms*. The order of operations is an example of a *standard algorithm.*	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	4NS 3.1
STATISTICAL DATA *(n)* *Datos estadísticos*	A collection of information, usually numerical, usually obtained through surveys or observation.	The statistical data gathered by the pollsters showed the current president had the lead in the election.	Data is organized and analyzed in a variety of ways.	6SDAP 2.5

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
SUBTRACT *(v)* *Resta*	To take one number, or quantity, away from another; the difference between two numbers.	Examples include: 12 - 5 = 7 3 - 8 = -5	Variables, numbers, or operations can be used to represent mathematical problems.	7NS 1.2 7NS 2.2 AI 10.0
SUBTRACTION *(n)* *Resta*	A mathematical operation that finds the difference between two numbers.	*Subtraction* can be used to compare: There are 4 apples and 9 oranges, so 9 - 4 = 5. Therefore, there are 5 more oranges than apples. *Subtraction* can be used to take away: I had $20 and spent $13, so 20 -13 = 7. Therefore, I have $7 left.	Variables, numbers, or operations can be used to represent mathematical problems.	4NS 2.0 4NS 3.1 5NS 2.3
SURFACE AREA *(n)* *Área de la superficie*	The total area of all the faces of a geometric solid.	To find the surface area of a prism one needs to find the area of each face and then find the sum of those areas.  	Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7MG 2.1 7MG 2.3

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
SYSTEM *(n)* *Sistema*	A method or organized set of ideas for the classification of mathematically related parts.	Metric *System* Examples: Meters, Liters, and Grams Measurement *System* Examples: Inches, feet, yards, miles	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	7MG 1.1
SYSTEM OF EQUATIONS *(n)* *Sistema de ecuaciones*	Two or more equations that model relationships between common variables.	There are several methods for solving *systems of equations* (graphing, substitution, or elimination). Solve the *system of equations.* $x + y = 10$ $2x = 6$ If $2x = 6$, $x = 3$ If $x + y = 10$ and $x = 3$ $3 + y = 10$, $y = 7$ The point (3, 7) is the solution of the s*ystem of equations.*	Variables, symbols, numbers or operations can be used to represent a number, expressions and equations.	7AF 1.1 AI 9.0
SYSTEM OF INEQUALITIES *(n)* *Sistema de desigualdades*	Two or more inequalities that model relationships between common variables.	There are several methods for solving *systems of inequalities* (graphing, substitution, or elimination). Solve the *system of inequalities.* $2x \leq 4$ $y \geq -3$	Variables, symbols, numbers or operations can be used to represent a number, expressions and equations.	7AF 1.1
TABLE *(n)* *Tabla*	Mathematical information organized in columns and rows used to explain mathematical reasoning.	Multiplication *Table* Function *Table* T-*Table* x | y	Variables, symbols, numbers or operations can be used to represent a number, expressions and equations.	6SDAP 3.1

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
TAKING A ROOT *(v)* *Tomando la raíz*	A mathematical operation that simplifies radical expressions.	$\sqrt{12}$ $\sqrt{4 \bullet 3} = \sqrt{4} \bullet \sqrt{3}$ $= 2\sqrt{3}$	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	AI 2.0
TAKING THE OPPOSITE *(v)* *Tomando el opuesto*	The process of finding the additive inverse of a number.	3 is the *opposite* (additive inverse) of -3. -4 is the *opposite* (additive inverse) of 4.	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	AI 2.0
TEMPERATURE *(n)* *Temperatura*	How hot or cold something is, as measured by degrees; the scale can be in Fahrenheit or Celsius.	The typical body *temperature* is 98.6 ° F	Physical objects and situations can be described by defined numerical values.	4NS 1.8 7MG 1.1
TEN THOUSAND *(n)* *Diez mil*	In place value, the fifth digit left of the decimal point. It is equal to ten groups of 1000. The ten thousands place is represented by 1×10^4.	*Ten thousand* in standard notation is written as 10,000. 74,236 (7 is in the *ten thousands'* position).	Numerical values can be represented by the position of a digit in a number.	4NS 1.3
TERM *(n)* *Término*	Parts of an expression or series separated by + or – signs, or the parts of a sequence separated by commas.	$4x + 6 = 14$ $4x$, 6 and 14 are terms.	Variables, numbers, and operations can be used to represent mathematical problems.	7AF 1.4
TERMINATING DECIMAL *(n)* *Decimal que termina*	A decimal that has a finite number of digits.	$\frac{3}{4} = .75$ .75 is a *terminating decimal* because the digits do not continue.	Numerical values can be represented by the position of a digit in a number.	7NS 1.2 7NS 1.5

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
THEORETICAL PROBABILITY *(adj)* *Probabilidad teórico(a)*	Probability based on theory, versus experimentation; the number of favorable outcomes divided by the number of possible outcomes; the likelihood that an event will occur.	The formula for finding the theoretical probability is: P(event) = $\frac{\text{\#of favorable outcomes}}{\text{\# of possible outcomes}}$	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	6SDAP 3.0 6SDAP 3.1
THOUSAND *(n)* *Mil*	In place value, the fourth digit left of the decimal point; equal to ten groups of 100; the thousands place is represented by 1×10^3.	*Thousand* in standard notation is written as 1,000. 4,236 (4 is in the thousands' position.)	Numerical values can be represented by the position of a digit in a number.	4NS 1.3
THOUSANDTHS *(n)* *Milésimo*	In place value, the third digit right of the decimal point; it is equal to $\frac{1}{1000}$; the thousandths place is represented by 1×10^{-3}.	*Thousandths* in standard notation is written as .001. 42.367 (7 is in the thousandths' position.)	Numerical values can be represented by the position of a digit in a number.	5NS 1.1
THREE-DIMENSIONAL SHAPES/FIGURES *(n)* *Figuras de tres dimensiones*	Common shapes found in three dimensions such as prisms, cubes, cones, 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
TIME *(n)* *Tiempo*	A system for measuring intervals in seconds, minutes, hours, days, months, years, etc.	The *time* it takes for a car to travel a certain distance is found by using the formula $d = rt$ distance = rate × time	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	7AF 4.2 7MG 1.1 7SDAP 1.2

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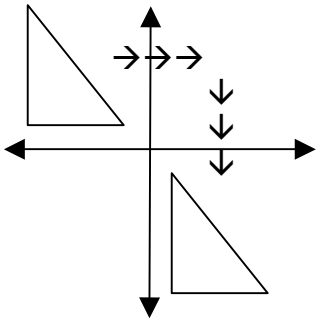
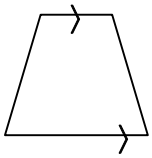
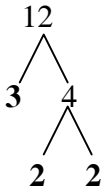
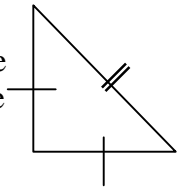
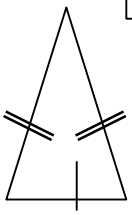
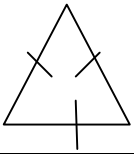
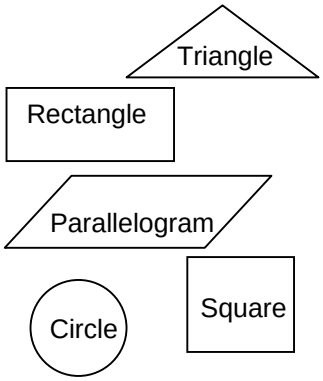
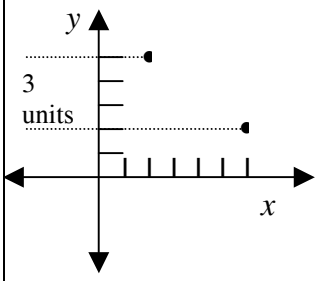
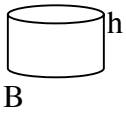
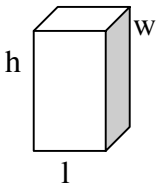
TIPS *(n)* *Pistas*	Usually a gift of money for a service above what is owed.	What would be a 15% *tip* on a restaurant bill of $42?	Financial terms demonstrate real life applications of mathematics.	6NS 1.4
TRANSLATION *(n)* *Translación*	A type of transformation, or the change of position of a figure on a coordinate plane, moves all points the same distance and in the same direction. A figure slides to a new position without rotating, or turning itself.	Moving a geometric figure by sliding. 	The movement of geometrical shapes in two-dimensional and three-dimensional space can be mathematically defined.	7MG 3.2
TRAPEZOID *(n)* *Trapezoide*	A quadrilateral with one pair of parallel sides and the other pair not parallel.	*Trapezoid* 	Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7MG 2.1
TREE DIAGRAM *(n)* *Diagrama de arbol*	A graphic organizer used in probability to show all the possible outcomes of an event.	A *tree diagram* finding the prime factors of 12:  $12 = 2 \times 2 \times 3$ or $2^2 \times 3$	Data is organized and analyzed in a variety of ways.	6SDAP 3.1
TRIANGLE (ALL TYPES) *(n)* *Triángulo*	A polygon with three sides and three angles; the sum of the measure of the angles is 180°.	Examples of *triangles* are: Scalene triangle   Isosceles triangle  Equilateral triangle	Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7MG 2.1 7MG 3.3

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
TWO-DIMENSIONAL SHAPES/FIGURES *(n)* *Figuras basicas de dos dimensiones*	Common 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
TWO-STEP LINEAR EQUATION *(n)* *Ecuación Lineal de dos pasos*	Problems that require two steps, such as addition or subtraction, then multiplication or division to find the solution.	$3x - 7 = 8$ Step 1 $\underline{+7} \quad \underline{+7}$ $\frac{3x}{3} = \frac{15}{3}$ Step 2 $x = 5$	Variables, symbols, numbers or operations can be used to represent a number, expressions, and equations.	7AF 4.1
UNDERSTAND *(v)* *Entiende*	To have a working knowledge of; to know; to be able to explain.	Students need to be able to *understand* the order of operations and be able to use them on a consistent basis.	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	4NS 1.0, 2 4NS 3.1 5NS 1.3 6NS 1.3 7NS 2.1 7NS 2.5 7AF 3.4 AI 2.0, 8 7MG 2.3 7MG 3.2 7MG 3.3 7MG 3.4 6SDAP 3.5
UNITS *(n)* *Unidades*	A category or amount for standard measurement.	The teacher asked the class to decide which *unit* of measurement would be better for measuring the football field, yards or miles.	Physical objects can be described by defined numerical values.	7MG 1.3 7MG 2.4

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
UNLIKE DENOMINATORS *(n)* *Denominadores diferentes*	When the bottom numbers of two fractions are different; when adding or subtracting fractions, the denominators have to be alike by multiplying by a common factor.	$\frac{1}{4} + \frac{2}{3} =$ $\frac{3}{12} + \frac{8}{12} = \frac{11}{12}$ 3 and 4 are *unlike denominators.* In order to add or subtract fractions with *unlike denominators*, they have to be rewritten as equivalent fractions with common denominators.	Rational numbers can be represented in different forms with different operations.	5NS 2.3
VALIDITY *(n)* *Validez*	The state or condition of being acceptable or true.	Forty San Diego high school students were surveyed and asked their favorite music. Thirty said hip-hop. Would it be *valid* to say 75% of people in the United States like hip-hop?	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	6SDAP 2.5
VALUE *(n)* *Valor*	A numerical amount of a variable or symbol.	What is the *value* of N? $\frac{1}{7} = \frac{N}{28}$ $\frac{28}{7} = \frac{7N}{7}$ $4 = N$	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	6NS 1.3 7AF 3.4
VARIABLE *(n)* *Variable*	A symbol, usually a letter, that represents an unknown quantity.	$4x + 6 = 14$, the *variable* is x. $5 < 8m - 11$ The *variable* is m.	Variables, numbers, or operations can be used to represent mathematical problems.	6AF 1.1 6AF 1.2 7AF 1.1 7AF 1.4 7AF 4.1 AI 4.0 AI 5.0 AI 9.0

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
VERIFY *(v)* *Verifíca*	To check something; to prove it to be true.	The student *verified* that her answer was correct.	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	7AF 4.1 AI 7.0 7MR 2.1 6SDAP 3.3
VERTICAL CHANGE *(n)* *Cambio vertical*	A change of y-values on a linear graph function or between two points; the graph of a linear function shows a constant ratio of vertical change to horizontal change, called the slope.	What is the *vertical change* between the points (2, 5) and (6, 2)?  Answer: 5 – 2 = 3: 3 units	Point locations can be represented in a two dimensional plane.	7AF 3.3
VOLUME *(n)* (CUBIC) *Volumen (Cubico)*	The number of cubic units that fill a three dimensional object.	*Volume* is equal to the area of the base times the height of a cylinder. V= Bh  Or *volume* is equal to length times width times height of a prism. V= l x w x h  	Physical objects can be described by defined numerical values.	7MG 2.1 7MG 2.3
WEIGHT *(n)* *Peso*	Unit of measure for mass.	Examples of various units of *weight* are: 16 oz., 4 lbs, 1 ton	Physical objects can be described by defined numerical values.	7MG 1.1

<table>
<tr><th>Vocabulary Term/Concept</th><th>Verbal Representation</th><th>Mathematical/Visual/ Verbal Examples or Showing Sentence</th><th>Underlying Concept</th><th>Standards</th></tr>
<tr><td>WHOLE NUMBERS (n)

Números enteros</td><td>All of the natural numbers plus zero; zero is added to the counting numbers to make up the set of whole numbers.</td><td>The set of whole numbers are:

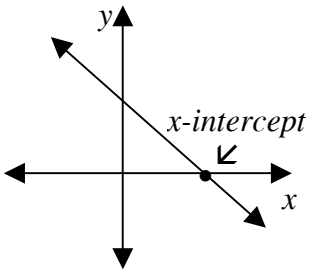
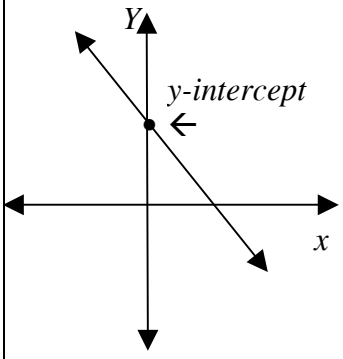
(0, 1, 2, 3, 4, 5,…)</td><td>Numerical values can be represented by the position of a digit in a number.</td><td>4NS 1.0
4NS 2.0
4NS 1.3
4NS 1.5
4NS 2.0
6NS 2.4</td></tr>
<tr><td>WHOLE-NUMBER EXPONENT (n)

Exponente de número entero</td><td>The number in the power position that tells how many times the base is used as a factor in multiplication.</td><td>$5^3 = 5 \times 5 \times 5$</td><td>In mathematics, we often change forms to facilitate problem solving and computation.</td><td>7NS 2.1</td></tr>
<tr><td>WHOLE-NUMBER POWER (n)

Poder de numero entero</td><td>Non-negative exponents; a number raised by an exponent representing repeated multiplication.</td><td>$5^3 = 5 \times 5 \times 5$

3 is a whole-number power or exponent.</td><td>In mathematics, we often change forms to facilitate problem solving and computation.</td><td>7AF 2.1
7AF 2.1</td></tr>
<tr><td>WORK PROBLEMS (n)

Problemas de trabajo</td><td>Problems using rational equations.</td><td>A motorcycle travels 8 mph faster than a bicycle. The motorcycle traveled 25 miles in the time it took the bicycle to go 5 miles.
Find their speeds:
s = speed of the bicycle
s + 8 = speed of the motorcycle
t = time each took
<table><tr><td></td><td>Distance</td><td>Rate</td><td>Time</td></tr><tr><td>B</td><td>5</td><td>s</td><td>t</td></tr><tr><td>M</td><td>25</td><td>s+8</td><td>t</td></tr></table>Each can be set equal to t and then set equal to each other.
$\frac{25}{s+8} = \frac{5}{s}$
$5(s+8) = 25s$
$5s + 40 = 25s$
$40 = 20s$
$2 = s$
The bicycle is traveling at 2 mph and the motorcycle is traveling at 10 mph.</td><td>Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.</td><td>AI 15.0</td></tr>
</table>

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
x-INTERCEPT *(n)* *Intersección del eje x*	The point at which the graph crosses the x axis; the x-intercept can be found in a linear equation by setting the variable y = 0, and solving for x.	 In the equation y = -4x + 8, let x = 0 0 = 4x + 8 x = 2	Point locations can be represented in a two dimensional plane.	AI 6.0
x-VALUE *(n)* *Valor de x*	In an ordered pair, it is the first value, or the independent variable; the value that represents the movement along the horizontal axis of the coordinate plane.	In the ordered pairs (4, –2), (-5, 0), 4 and -5 are the *x-values.*	Point locations can be represented in a two dimensional plane.	7AF 3.3
y-INTERCEPT *(n)* *Intersección del eje y*	The point at which the graph crosses the y axis; the y-intercept can be found in a linear equation by setting the variable x = 0, and solving for y.	 In the equation y = -4x + 8, let x = 0. y = -4(0) + 8 y = 8 y-intercept is (0, 8)	Point locations can be represented in a two dimensional plane.	AI 6.0
y-VALUE *(n)* *Valor de y*	In an ordered pair, it is the second value, or the dependent variable; it is the value that represents the movement along the vertical axis of the coordinate plane.	In the ordered pairs (4, -2), (-5, 0), -2 and 0 are the *y-values*.	Point locations can be represented in a two dimensional plane.	7AF 3.3