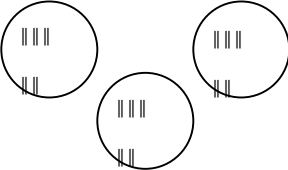
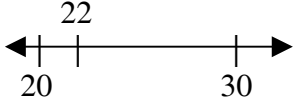
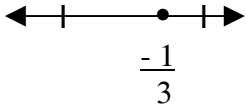
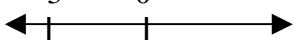
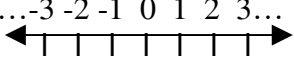


GLOSSARY

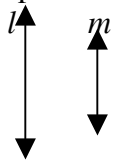
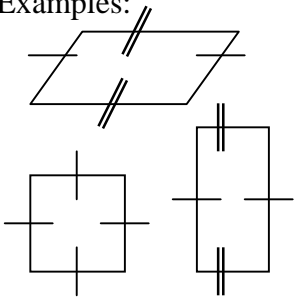
Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/Verbal Examples or Showing Sentence	Underlying Concept	Standards
MILES PER HOUR (n) <i>Millas por hora</i>	A comparison of two unit measures used to indicate speed.	200 miles in 5 hours = 40 miles in 1 hour or 40 <i>miles per hour</i>	Rate is a comparison of one measure to another.	6NS 1.2 7MG 1.1
MILLION (n) <i>Millón</i>	One-thousand thousands; our place value system uses 10 digits to represent all number values; each place to the left is a multiple of 10.	1,000,000 = 1,000 × 1,000	Numerical values can be represented by the position of a digit in a number.	4NS 1.3 5NS 1.1
MIXED NUMBER (n) <i>Números mixtos</i>	Refers to a whole number and a fraction; if the same value is written as a fraction it is called an improper fraction.	$5\frac{3}{4}$ Mixed number $\frac{23}{4}$ Improper fraction	Variables, symbols, numbers or operations can be used to represent a number, expressions and equations.	5NS 1.5 5NS 2.3 6NS 1.1
MODE (n) <i>Modo</i>	The number or numbers that occur most often in a set of data (if no number occurs most often, the set of data has no mode); mean, median, and mode are the three measures of central tendency.	Heights in inches: 60, 63, 63, 63, 59, 70 63 occurs most often so the <i>mode</i> is 63 inches. Data sets can have more than one mode.	Data is organized and analyzed in a variety of ways.	6SDAP 1.1
MODEL (n) <i>Modelo</i>	A smaller or simplified version or copy of something.	The students built a <i>model</i> bridge out of toothpicks.	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	7MG 1.2
MONOMIAL (n) <i>Monomio</i>	An expression that has only one term; does not involve addition or subtraction.	Examples: $3x^7$ $10xyz$	Variables, symbols, numbers or operations can be used to represent a number, expressions and equations.	7AF 2.2 AI 10.0

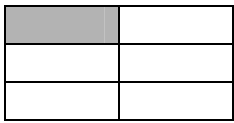
Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
MULTI-DIGIT DIVISOR (n) <i>Divisor de varios dígitos</i>	A number with two or more digits does the dividing.-	$121 \div 11 = 11$ 11 is the <i>multidigit divisor</i> .	Numerical values can be represented by the position of a digit in a number.	5NS 2.2
MULTI-DIGIT NUMBER (n) <i>Número de varios dígitos</i>	Any integer more than 9 or less than -9.	Examples include: 99 2,345 -14	Numerical values can be represented by the position of a digit in a number.	4NS 3.1
MULTIPLE (n) <i>Múltiple</i>	A number that is a product of the given number and a whole number; a multiplication table shows us the multiples of each number.	The <i>multiples</i> of 3 are: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30...	Variables, symbols, numbers or operations can be used to represent a number, expressions, and equations.	5NS 1.4
MULTIPLICATION (n) <i>Multiplicación</i>	The mathematical operation that represents repeated addition; the process of finding the total amount when you have sets of a certain size.	3 sets with 4 in each set $3 \times 4 = 12$ 12 total items. Twice as tall as 5 feet $5 \text{ ft} \times 2 = 10 \text{ ft}$	Variables, numbers, or operations can be used to represent mathematical problems.	6NS 1.3
MULTIPLICATIVE INVERSE (n) <i>Inverso multiplicativo</i>	The number that you multiply another number by to get to 1; the product of a number and its multiplicative inverse (reciprocal) is 1.	$5 \times \frac{1}{5} = 1$ or $5 \times 5^{-1} = 1$ $\frac{1}{5}$ and 5^{-1} are the <i>multiplicative inverses</i> of 5.	Variables, symbols, numbers or operations can be used to represent numbers, expressions and equations.	6NS 1.3 7AF 2.1
MULTIPLY (v) <i>Multiplica</i>	A mathematical operation in which a total is found for a number of sets of a certain size; a shortcut for repeated addition.	 Three groups of 5 is equal to: $3 \times 5 = 15$ (15 total hearts)	Variables, numbers, or operations can be used to represent mathematical problems.	7NS 1.2 7NS 2.1 7NS 2.3 7AF 2.2 AI 10.0

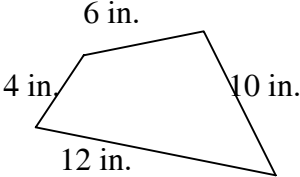
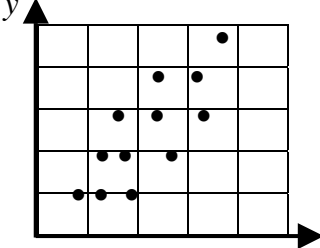
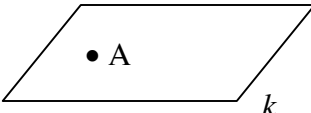
Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
MULTISTEP LINEAR EQUATION <i>Ecuación lineal de varios pasos</i>	(n) Problems that require more than one step to find the solution; may require addition or subtraction and then multiplication or division.	$3x - 4 = 8$ (step 1) $\underline{+4} \quad \underline{+4}$ $\frac{3x}{3} = \frac{12}{3}$ (step 2) $\frac{3x}{3} = \frac{12}{3}$ $x = 4$	Variables, symbols, numbers or operations can be used to represent numbers, expressions and equations.	7AF 4.2 AI 5.0 AI 10.0
NEAREST TEN <i>La decena más próxima</i>	(n) To round a number, identify which multiple of ten it is closest to on a number line.	Is 22 closer to 20 or to 30 on a number line?  Answer: 20	Numerical values can be represented by the position of a digit in a number.	4NS 1.3
NEGATIVE FRACTION <i>Fracción negativa</i>	(n) A value less than 0 and to the left of 0 on a number line.	Negative Positive -1 0  $-\frac{1}{3}$	Rational numbers can be represented in different forms with different operations.	6NS 1.1
NEGATIVE INTEGER/ NUMBER <i>Número entero negativo/ Número negativo</i>	(n) A whole number less than 0 and to the left of 0 on a number line.	Negative Positive -3 0 	Rational numbers can be represented in different forms with different operations.	4NS 1.0 4NS 1.8 5NS 1.5
NEGATIVE POWER OF 10 <i>Poderes negativos de diez</i>	(n) A numerical representation for the decimal system representing place values less than zero; the inverse of the positive power of ten.	Examples: $5 \times 10^{-3} =$ $5 \times \frac{1}{1000} = 0.005$	Numerical values can be represented by the position of a digit in a number.	7NS 1.1
NEGATIVE WHOLE-NUMBER POWER <i>Poder de números enteros negativos</i>	(n) Refers to an exponent integer less than zero; used in numerical representations for decimal system values less than zero; typically called “negative integer power.”	Examples: $2^{-4} = \frac{1}{2^4} = \frac{1}{2 \times 2 \times 2 \times 2}$ $= \frac{1}{16}$ $10^{-1} = \frac{1}{10} = .1$ $10^{-2} = \frac{1}{100} = .01$	Numerical values can be represented by the position of a digit in a number.	7AF 2.1

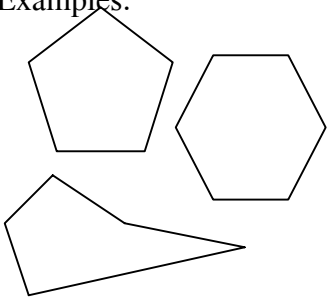
Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards						
NONNEGATIVE INTEGERS (n) <i>Números enteros no negativos</i>	Positive whole numbers.	(1, 2, 3, 4...)	Rational numbers can be represented in different forms with different operations.	5NS 1.3						
NOTATION (n) <i>Notación</i>	A set of symbols for writing something down.	The <i>standard notation</i> for writing a billion is 1,000,000,000.	In mathematics, we often change forms to facilitate problem solving and computation.	6NS 1.2						
NUMBER LINE (n) <i>Línea numérica</i>	A model to help us see how positive and negative numbers are ordered and how they relate to each other.	$\dots -3 -2 -1 0 1 2 3 \dots$ 	Symbols can be used to compare expressions and/or numerical values.	4NS 1.8 5NS 1.5 6NS 1.1 7NS 2.5						
NUMERICAL VARIABLES (n) <i>Numérico (a)</i>	Quantitative data from two or more experimental variables where a relationship can be shown by graphing.	Graph the altitude versus temperature to show the relationship of the <i>numerical variables</i> .	Variables, numbers, or operations can be used to represent mathematical problems.	7SDAP 1.2						
NUMERICAL EXPRESSION (n) <i>Expresión numérica</i>	A value represented by numbers and operations.	15 can be represented as the <i>numerical expressions</i> : $10 + 5$ $25 - 10$ 3×5	Variables, numbers, or operations can be used to represent mathematical problems.	7AF 1.3						
OBJECT (n) <i>Objeto</i>	A thing; something that can be touched.	<table border="1" style="display: inline-table; vertical-align: top;"> <tr> <td><i>Object</i></td> <td>Geometric shape</td> </tr> <tr> <td>Gift box</td> <td>Rectangular prism</td> </tr> <tr> <td>Can</td> <td>Cylinder</td> </tr> </table> In Geometry, geometric shapes are compared to everyday <i>objects</i> .	<i>Object</i>	Geometric shape	Gift box	Rectangular prism	Can	Cylinder	Geometrical figures can be classified by their angle shape and measure.	7MG 2.3
<i>Object</i>	Geometric shape									
Gift box	Rectangular prism									
Can	Cylinder									

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
OCCURRING (v) <i>Ocurriendo</i>	Happening.	What is the probability of a five <i>occurring</i> and the probability of <i>not occurring</i> , when rolling a number cube one time?	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	6SDAP 3.3
ONE-STEP LINEAR EQUATION (n) <i>Ecuación lineal de un paso</i>	Problems that require one step to find the solution; the step will be either adding, subtracting, multiplying, dividing, or finding the root.	$x + 5 = 10$ (step 1) $\frac{-5}{-5}$ $x = 5$	Variables, numbers, or operations can be used to represent mathematical problems.	6AF 1.1
OPERATIONS (n) <i>Operaciones</i>	Mathematical processes such as addition, subtraction, multiplication, and division.	$5 + 2$ 5×2 $5 - 2$ $5 \div 2$	Variables, numbers, or operations can be used to represent mathematical problems.	7AF 1.1 AI 2.0
ORDER AND COMPARE (v) <i>Pon en orden y compara</i>	Arrange in a specific sequence and then look for similarities; ordering can be done either from high to low or low to high.	<i>Order and compare</i> the following sets of numbers. 10, 40, 20, 30 $\frac{1}{3}$, $\frac{3}{4}$, $\frac{1}{2}$	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	4NS 1.2
ORDER OF OPERATIONS (n) <i>Orden 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 from left to right.	Simplify the equation. $5(3^2 + 2) - 7 =$ $5(9 + 2) - 7 =$ $5(11) - 7 =$ $55 - 7 =$ 48	Variables, numbers, or operations can be used to represent mathematical problems.	6AF 1.3 7AF 1.2


Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards															
ORDERED PAIR (<i>n</i>) <i>Par de coordenadas</i>	A pair in which one value x is designated as the independent variable and the other value y is the dependent variable; the pairs are graphed as coordinates of points on a plane.	<table border="1"> <tr> <td>x</td> <td>y</td> <td>(x, y)</td> </tr> <tr> <td>0</td> <td>3</td> <td>(0, 3)</td> </tr> <tr> <td>1</td> <td>5</td> <td>(1, 5)</td> </tr> <tr> <td>2</td> <td>7</td> <td>(2, 7)</td> </tr> <tr> <td>3</td> <td>9</td> <td>(3, 9)</td> </tr> </table>	x	y	(x, y)	0	3	(0, 3)	1	5	(1, 5)	2	7	(2, 7)	3	9	(3, 9)	Point locations can be represented in a two dimensional plane.	5AF 1.5 5SDAP 1.4 5SDAP 1.5
x	y	(x, y)																	
0	3	(0, 3)																	
1	5	(1, 5)																	
2	7	(2, 7)																	
3	9	(3, 9)																	
OUTCOME (<i>n</i>) <i>Resultado</i>	One of the possible results that can happen in an experimental probability trial; the sample space is all the possible outcomes.	<p>A possible <i>outcome</i> for flipping a coin: heads</p> <p>A possible <i>outcome</i> for rolling a die: 3</p>	The likelihood and unlikelihood of events are described and reasoned through the use of probability terms.	6SDAP 3.1															
OWE (<i>v</i>) <i>Debe</i>	One model used to explain negative numbers.	<p>If you have \$30 and you <i>owe</i> someone \$10 it can be represented in an equation as:</p> $\$30 - \$10 = \$20$ <p>\$10 is the amount you <i>owe</i>.</p>	Financial terms demonstrate real life applications of mathematics.	4NS 1.8															
P (Probability) (<i>n</i>) <i>(Probabilidad)</i>	P represents the probability of an event occurring.	<p>In a coin flip, the P (<i>probability</i>) of flipping heads is one half.</p> $P(\text{heads}) = 1/2$	The likelihood and unlikelihood of events are described and reasoned through the use of probability terms.	6SDAP 3.3															
PARALLEL LINES (<i>n</i>) <i>Líneas paralelas</i>	The relationship two lines can have in their orientation to each other; two lines that will never intersect.	<p>Example:</p> 	Geometric figures are classified by their attributes and relationships.	AI 8.0															
PARALLELOGRAM (<i>n</i>) <i>Paralelogramo</i>	A quadrilateral with both pairs of opposite sides parallel; opposite angles are congruent; the sum of any two consecutive angles is 180° .	<p>Examples:</p> 	Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7MG 2.1															

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
PARTS OF A SET (n) <i>Partes de un conjunto</i>	Part of a collection of objects.	2 blue marbles out of 10 marbles in the bag. The two marbles are <i>part of a set</i> of the original 10. A half dozen eggs is <i>part of a set</i> of a whole dozen.	Rational numbers can be represented in different forms with different operations.	4NS 1.5
PARTS OF A WHOLE (n) <i>Partes de un entero</i>	An object divided into smaller quantities.	$\frac{1}{6}$ 	Rational numbers can be represented in different forms with different operations.	4NS 1.5
PATTERN (n) <i>patrón</i>	Repeating order.	What would be the next term in this <i>pattern</i> ? 2, 4, 6, 8, ___	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	7MR 1.1
PERCENT (n) <i>Porciento</i>	A number compared to 100; the symbol % is used for percent.	$\frac{20}{100}$ or 20%	Symbols can be used to compare expressions and/or numerical values.	7NS 1.3
PERCENT MIXTURE PROBLEM (n) <i>Problema que contiene porcentajes de soluciones</i>	A real-world mathematical problem involving the mixture of two or more substances.	A solution is 75% salt, a second solution is 25% salt. How much of each solution is needed to make 100L solution that is 50% salt?	Variables, symbol, numbers or operations can be used to represent a number, expressions and equations.	AI 15.0
PERCENTAGE (n) <i>Porcentaje</i>	A proportion given in the amount out of 100.	8 out of the 12 students were reading the same book. The <i>percentage</i> of students reading the same book was 75%.	Symbols can be used to compare expressions and/or numerical values.	6NS 1.4 7NS 1.6 6SDAP 3.3

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
PERFECT SQUARE (n) <i>Cuadrado perfecto</i>	A whole number that is the square of an integer.	$9 \times 9 = 81$ is an example of 81 being a <i>perfect square</i> integer.	Variables, numbers, or operations can be used to represent mathematical problems.	7NS 2.4
PERIMETER (n) <i>Perímetro</i>	Perimeter is the length of the line around the sides; length is measured in linear units to determine how long around the outside of a shape; the formula for a quadrilateral is side + side + side + side = perimeter.	Find the <i>perimeter</i> of the quadrilateral.  $4 \text{ in.} + 6 \text{ in.} + 10 \text{ in.} + 12 \text{ in.} = 32 \text{ in.}$	Objects can be described by defined numerical values.	7MG 2.1 7MG 2.3
PLACE VALUE (n) <i>Valor de la posición</i>	A system in which a digit's value is determined by its position within a number.	7,234 The <i>place value</i> of the 2 is in the hundreds position.	Numerical values can be represented by the position of a digit in a number.	3NS 1.3 4NS 1.0
PLOT (n) <i>Gráfica</i>	A set of points or coordinates displayed as a graph.	 Fit a line to the <i>plot</i> .	Point locations can be represented in a two dimensional plane.	7AF 3.4
PLOT (v) <i>Traza</i>	The action of placing points on a graph according to designated coordinates.	<i>Plot</i> the x- and y-coordinates on the graph.	Point locations can be represented in a two dimensional plane.	7AF 3.4 7MG 3.2
POINT (n) <i>Punto</i>	An exact location in a plane, in space, or on a graph (with no size or shape); usually represented by a dot; the graph of an ordered pair.	 <i>Point A</i> is located within the plane <i>k</i> .	Point locations can be represented in a two dimensional plane.	AI 7.0

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
POLYGON (n) <i>Polígono</i>	A closed figure that can be drawn without lifting the pencil, made up of at least 3 line segments that do not cross each other.	Examples: 	Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	6NS 1.3
POLYNOMIAL (n) <i>Polinomio</i>	An algebraic expression with one or more monomial terms; a sum or difference of terms that have variables raised to positive integer powers.	$3x^4 - 2x + 5$ is a <i>polynomial</i> .	Variables, symbols, numbers or operations can be used to represent a number, expressions, and equations.	AI 10.0
POSITIVE FRACTION (n) <i>Fracción positiva</i>	Fractions greater than 0.	Examples include: $\frac{1}{2}, \frac{4}{5}, \frac{7}{3}$	Rational numbers can be represented in different forms with different operations.	6NS 1.1
POSITIVE INTEGER/ NUMBER (n) <i>Número entero positivo/ Número positivo</i>	A whole number greater than 0.	Examples include: 3, 8, 10, 15, 23, 100	Rational numbers can be represented in different forms with different operations.	5NS 1.5
POSITIVE INTEGER POWER (n) <i>Poder de números enteros positivos o negativos</i>	A number raised by an exponent representing repeated multiplication. The exponent is greater than 0.	Example: $5^3 = 5 \times 5 \times 5$ 3 is a <i>positive integer power</i> .	Rational numbers can be represented in different forms with different operations.	5NS 1.3
POSITIVE POWER OF 10 (n) <i>Poder positivo de base diez</i>	A numerical representation for the decimal value system representing place values that are multiples of ten.	$10^1 = \text{ten} = 10$ $10^2 = \text{one hundred} = 100$ $10^3 = \text{one thousand} = 1000$	In mathematics, we often change forms to facilitate problem solving and computation.	7NS 1.1

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
POSITIVE RATIONAL NUMBER (n) <i>Número racional positivo</i>	A number that can be written as a fraction with whole numbers as the numerator and denominator.	$\frac{16}{3}$, 7 or $\frac{7}{1}$, $\frac{3}{5}$	Rational numbers can be represented in different forms with different operations.	7NS 1.2
POSITIVE WHOLE-NUMBER POWER (n) <i>Poder de número entero positivo</i>	Refers to a whole-number exponent greater than zero; a way of representing repeated multiplication.	Example: $3^4 = 3 \times 3 \times 3 \times 3$	Rational numbers can be represented in different forms with different operations.	7AF 2.1
POWER (n) <i>Poder, potencia</i>	An expression in the form a^n , in which the base a is raised to an exponent n ; also refers to an exponent.	2^4 is a number raised to a <i>power</i> and can be read as “two to the fourth <i>power</i> .”	In mathematics, we often change forms to facilitate problem solving and computation.	7AF 2.2
PREDICTION (n) <i>Pronosticación</i>	A reasonable guess as to what will most likely occur from a given situation.	Make a <i>prediction</i> based on the data from the graph as to what the trend will be if continued ten more years.	The likelihood and unlikelihood of events are described and reasoned through the use of probability terms.	6SDAP 3.0
PRIME FACTORS (n) <i>Factores primos</i>	A whole-number factor that cannot be factored itself.	The <i>prime factors</i> of 30 are $2 \times 3 \times 5$.	In mathematics, we often change forms to facilitate problem solving and computation.	5NS 1.4
PRIORITIZING (v) <i>Priorizamiento</i>	Analyzing relevant information and ordering or sequencing it in order to guide mathematical thinking through word problems.	Start word problems by <i>prioritizing</i> which steps need to be done first.	Use of accurate mathematical vocabulary and academic language is essential for developing students’ mathematical proficiency.	7MR1.1

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
PRISM (n) <i>Prisma</i>	A solid (three-dimensional shape) that has two congruent (exactly the same size and shape) and parallel bases that are joined by faces that are parallelograms.		Geometric figures are classified by their attributes: number of sides, number of faces, types of faces, and relationships of faces.	7MG 2.1
PROBABILITY (n) <i>Probabilidad</i>	The measure of the likelihood of an event to occur; probabilities are expressed as numbers between 0 and 1; expressed as the ratio of the number of favorable outcomes to the number of possible outcomes.	What is the <i>probability</i> of heads coming up if you toss a coin? Answer: 1:2 or 50%	The likely and unlikely of events are described and reasoned through the use of probability terms.	6SDAP 3.3
PRODUCT (n) <i>Producto</i>	The answer to a multiplication problem.	In $3 \times 4 = 12$, 12 is the <i>product</i> .	Variables, numbers, or operations can be used to represent mathematical problems.	7MG 1.3
PRODUCT OF PRIME FACTORS (n) <i>Producto de factores primos</i>	The number obtained when prime factors are multiplied together.	The <i>product of the prime factors</i> 3×5 is 15.	Variables, numbers, or operations can be used to represent mathematical problems.	5NS 1.4
PROFIT (n) <i>Ganancia</i>	The amount of money a company, business, or individual earns after all expenses are fully paid.	This year the company made a <i>profit</i> after all expenses were paid.	Financial terms demonstrate real life applications of mathematics.	7NS 1.7
PROPERTY (n) <i>Propiedad</i>	A given set of guidelines that distinguishes characteristics pertaining to certain mathematical situations.	In the Commutative <i>property</i> of addition the order of the addends does not change the sum.	Use of accurate mathematical vocabulary and academic language is essential for developing students' mathematical proficiency.	6AF 1.3 7AF 1.3

Vocabulary Term/Concept	Verbal Representation	Mathematical/Visual/ Verbal Examples or Showing Sentence	Underlying Concept	Standards
PROPORTION (n) <i>Proporción</i>	An equation stating that two ratios are equivalent.	$\frac{2}{3} = \frac{4}{6}$ or $3:9 = 12:36$ are examples of equivalent <i>proportions</i> .	In mathematics, we often change forms to facilitate problem solving and computation.	6NS 1.3 6SDAP 3.3