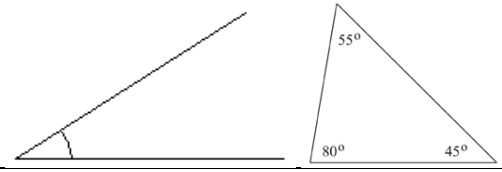
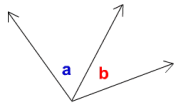
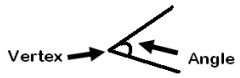
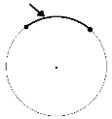
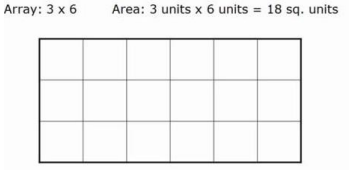
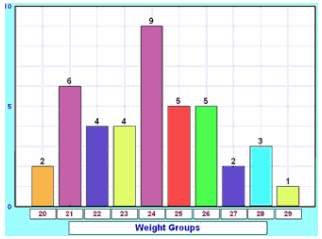
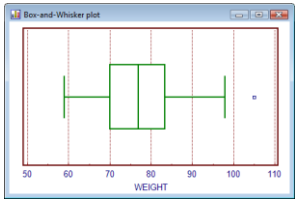
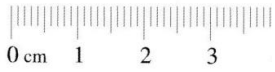
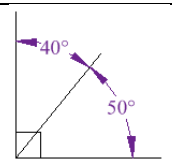
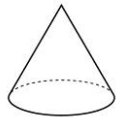
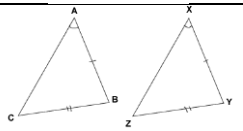
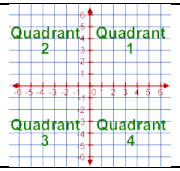
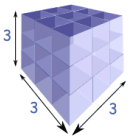
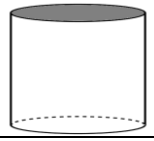
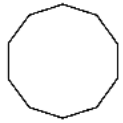
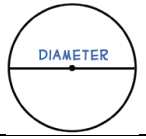
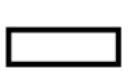
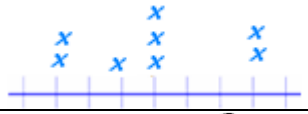
Vocabulary Cheat Sheet

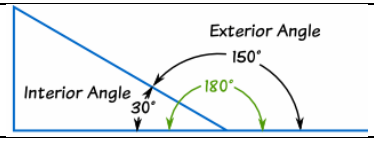
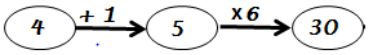
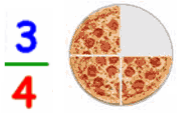
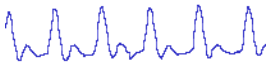
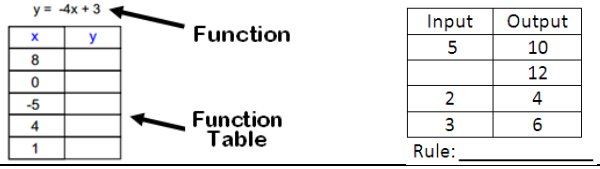
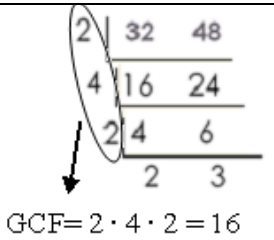
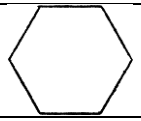
Term	Definition	Example
Absolute Value	Distance from zero – always positive Read – The absolute value of a # is #.	$\|5\| = 5$ 
Acute (Angle)	Angle less than 90˚	
Addend	Numbers being added together	**Addend** + **Addend** = Sum **5** + **4** = 9
Adjacent (angles)	Angles having common sides and common vertex (center point)	
Algebraic	A problem, table, equation that involves a variable	$4m + 7 = 24$
Analyze	Look at data and interpret the results	
Angle	The amount of turn between two straight lines. Meet at a vertex	
Approximation	*See Estimation*	*See Estimation*
Arc	Part of the circumference of a circle	
Area	<u>Covers</u> (square units) *For specific formulas: See Formula Cheat Sheet*	

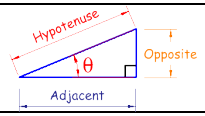
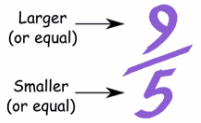
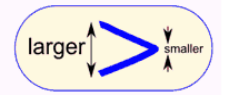
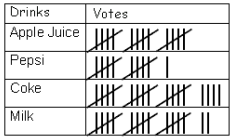
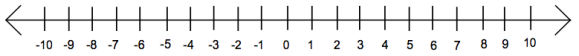
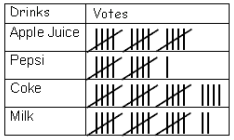
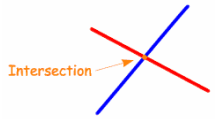
Ascending	Going up from smallest to largest	
Assess	Evaluate or estimate if something may be true or false given conditions	$5 + 3 = 8$?? → True
Associative Property of Addition & Multiplication	Grouping symbols can be moved without the answer changing	$(4 \times 3) \times 2 = 4 \times (3 \times 2)$ $(4 + 3) + 2 = 4 + (3 + 2)$
Average	See mean	
Bar Graph	Graph using rectangular bars	
Box-and-Whisker	Shows outliers and medians Divides data into 4 parts	
Bivariate	Two variable equation	$y = 4x + 3$
Calculate	Solve by applying the four operations	
Centi-	$\frac{1}{100}$	
Circumference	Distance around a circle	

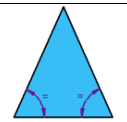
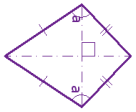
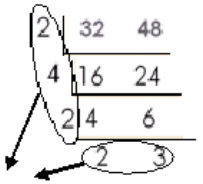
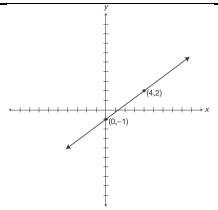
Coefficient	A number used to multiply a variable	$4y - 7 = 5$ Coefficient
Commutative Property of Addition & Multiplication	Multiply or add in any order without changing the answer	$3 \times 6 = 6 \times 3$ $5 + 2 = 2 + 5$
Complimentary Angles	Two angles that add up to 90˚	
Composite Numbers	Numbers that has more than two factors	Example: 4, 6, 8, 9, 12
Compute	To solve	
Cone	A 3-dimensional object that has a circular base and it comes to a point	
Congruent	Same measures (angles, length, shape, or size) $\cong$	
Consecutive	Numbers that follow each other in order without gaps	20, 21, 22, 23…
Convert	To change from one measurement to a different measurement	**6 mm = _____ km**
Coordinate Graph	Graph that contains an x-axis and y-axis that intersect	
Criterion (Criteria)	Standards or rules that make something true or false	**If a closed figure has 5 straight sides it is a pentagon.**

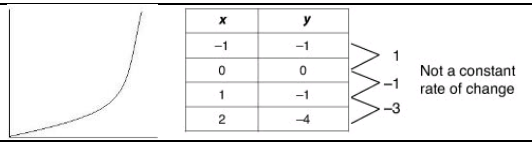
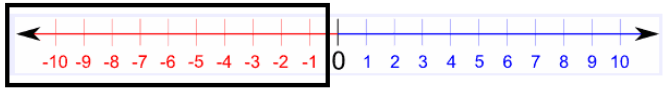
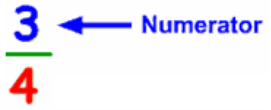
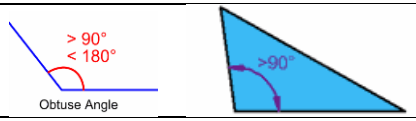
Cube Root	*The number* multiplied by itself 3 times that gives the perfect cube (See Perfect Cube) $\sqrt[3]{}$ $\sqrt[3]{0}=0$ $\sqrt[3]{64}=4$ $\sqrt[3]{512}=8$ $\sqrt[3]{1}=1$ $\sqrt[3]{125}=5$ $\sqrt[3]{729}=9$ $\sqrt[3]{8}=2$ $\sqrt[3]{216}=6$ $\sqrt[3]{1000}=10$ $\sqrt[3]{27}=3$ $\sqrt[3]{343}=7$	$\sqrt[3]{125}=5$ **5 x 5 x 5= 125** 
Cylinder	A 3-dimensional (3-D) shape that has two congruent and parallel round faces	
Deca-	Prefix for tens - 10	Decade – 10 years Decagone – 10 sided figure 
Deci -	Prefix for Tenths - 0.1	**0.1**
Decimal	Any number including whole numbers and numbers with a decimal point.	**9 or 17.5**
Denominator	Bottom number in a fraction	$\frac{3}{4}$ ← Denominator
Descending	Ordering from biggest to smallest	
Diameter	Distance across a circle going through the center	
Difference	Answer to a subtraction problem	Minuend – Subtrahend = **Difference** 8 – 5 = **3**
Dilation	Polygon grows or shrinks but keeps exactly the same shape (Similar Figure – must have a scale factor)	 **SF = 2.5**

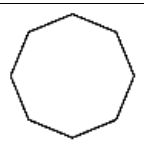
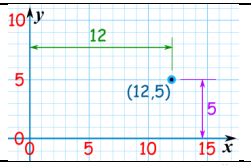
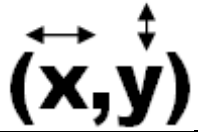
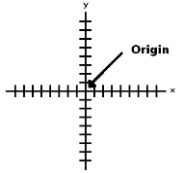
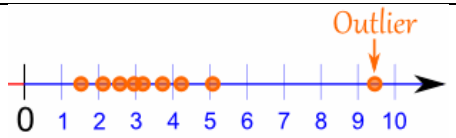
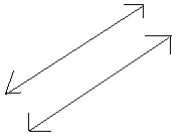
Distribution (Data)	Data and how often (frequency) it occurs	
Distributive Property	The number on the outside of the parentheses is distributed (multiplied) to the numbers on the inside of the parentheses	**Example: $3(2+4)$** **$= 3\cdot 2 + 3\cdot 4$**
Dividend	Number being divided	**Dividend** ÷ Divisor = Quotient **24** ÷ 8 = 3
Divisor	Number dividing	Dividend ÷ **Divisor** = Quotient 24 ÷ **8** = 3
Equation	Problem with an equal sign	$1 + 1 = 2$
Equivalent	Equal	=
Estimate (Estimation)	Approximate answer (Around the same number)	$3.4 \approx 3$
Evaluate	Solve the problem!!!!!!	$6-(5-3)+10$ $=6-2+10$ $=4+10$ $=14$
Even	Numbers ending in 0, 2, 4, 6, and 8	Example: 2, 12, 14, 102
Event	A single incident (occurrence)	
Exponent	Shows how many times you multiply a number	exponent (or index, or power), base $8^2 = 8 \cdot 8$
Expression	Problem without an equal sign	**$4 \cdot 5$**

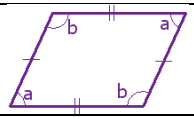
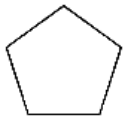
Exterior Angle	Angle measurements outside of a polygon when the lines are extended outside the shape.	
Factor	Number being multiplied	**Factor** x **Factor** = Product **6** x **5** = 30
Flow Chart	Visual diagram that shows each step in evaluating an algebraic expression or equation	
Formula	Recipe for solving a specific type of problem	**Example: $A = l \cdot w$**
Fraction	Part of a whole	
Frequency	How often something occurs (usually in a specific time period	
Function	A relationship between inputs and outputs of a specific rule. Every input will provide an output.	
Greater Than	Bigger	
Greatest Common Factor (Divisor) (GCF/GCD)	Highest number that divides exactly into two or more numbers	
Hexagon	6 sided figure	
Horizontal	Runs from left to right	

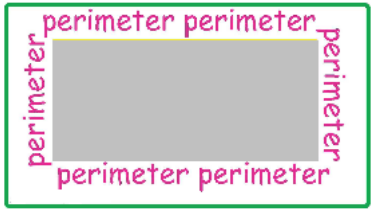
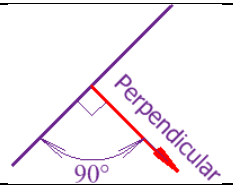
Hypotenuse	The side of a right triangle that is opposite the right angle	
Identify property of Addition	Adding zero to any number keeps the number the same	5 + 0 = 5
Identity Property of Multiplication	Multiplying by 1 to any number keeps the number the same	1 x 10 = 10
Improper Fraction	Fraction that has a larger number in the numerator than in the denominator	
Inequality	Two values that are not equal (less than, greater than)	
Inference (Infer)	Using data and information to come to a conclusion.	 **You can infer that Coke is the favorite drink**
Infinite	Goes on forever with no end. Not finite	
Integer	All counting numbers, including zero and it's opposites	Example: -1, 0, -5, 7, 250 
Interpret	Describing the meaning behind the data.	 **Of the 62 votes, 11 people like Pepsi.**
Intersect	When lines, shapes, or data overlap or cross over each other. (Lines intersect or meet at 1 point.)	
Inverse	Opposite operation	Multiplication → Divide Division → Multiply Addition → Subtract Subtraction → Add

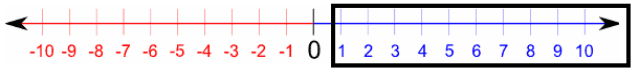
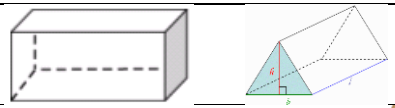
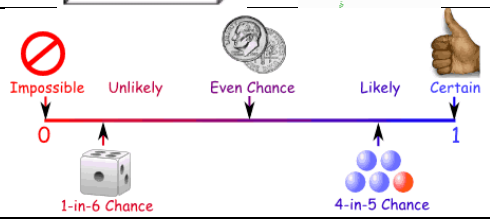
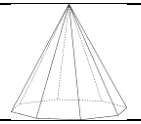
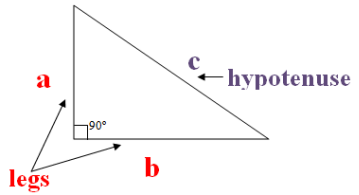
Irrational Number	A decimal that cannot be written as a fraction – It goes on forever *without* repeating.	$\pi \approx 3.14159\ldots$
Isosceles Triangle	Triangle with two equal sides and two equal angles	
Kite	Quadrilateral with two pairs of congruent sides adjacent to each other	
Least Common Multiple (Denominator) (LCM/LCD)	Smallest number that is a multiple of two or more numbers Smallest Number that is a multiple of two or more denominators	 LCM/LCD = 2 · 4 · 2 · 2 · 3 = 96
Less Than	Smaller	<
Linear	Makes a line	 A constant rate of change (–2) and can be written as a linear function **y = mx + b**
Lowest Terms	See Simplify	$\frac{4}{8} = \frac{1}{2}$
Mean	Average (add all numbers together and divide by how many items there are in a set of data)	Example: $\frac{5 + 5 + 8 + 12}{4}$
Median	Middle number in a set of data when the numbers are put in order from least to greatest. **If there are two middle numbers must find the mean of the two numbers**	1, 2, 5, (12), 18, 23, 30

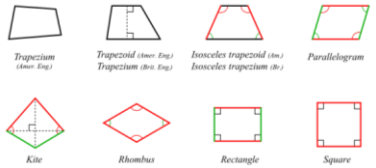
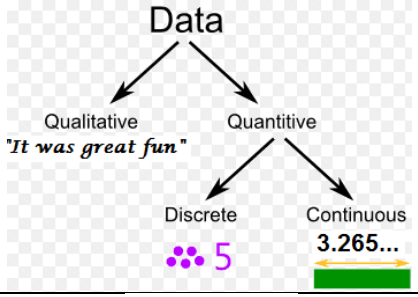
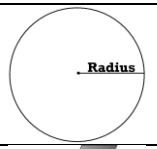
Milli-	$\frac{1}{1000}$	
Mixed Number	Fraction with a whole number and a proper fraction	
Mode	Number that occurs the most often in a set of data	 3, 3, 5, **6, 6, 6**, 9, 9 → The mode = **6**
Multiple	Result of multiplying by a whole number	**Multiples of 3: 3, 6, 9, 12…**
Non-Linear	Not a straight line	
Non-Terminating Decimal	A decimal that *does not* end, and may or may not repeat	**4.2596391142869281…**
Negative	Number less than zero	
Not Equal	Values are not the same amount	≠
Numerator	Top number in a fraction	
Obtuse (Angle)	Angle greater than 90˚ but less than 180˚	

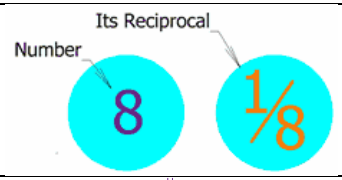
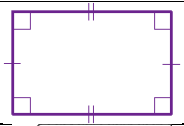
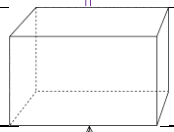
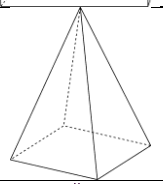
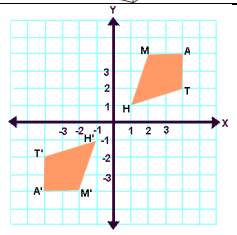
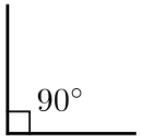
Octagon	8-sided figure	
Odd	Numbers ending in 1, 3, 5, 7 and 9	
Operation	Add, Subtract, Multiply, Divide	+ – x ÷
Opposite	Same distance from zero but in the other direction	Negative → Opposite = Positive Positve → Opposite = Negative
Order of Operations	The rules of which calculations come first in an expression or equation (The order we solve a problem) **Please Guys Excuse My Dear Aunt Sally**	
Ordered Pairs	Two numbers written in parentheses showing the x and y coordinates	 
Origin	Where the x-axis and y-axis intersect Point = (0,0) Always start at the origin when plotting points	
Outlier	Value that "lies" *out*side the other set of data **Either much larger or smaller than the rest of the data	
Parallel	Lines that are always the same distance apart and never touch	

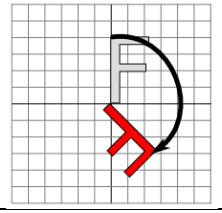
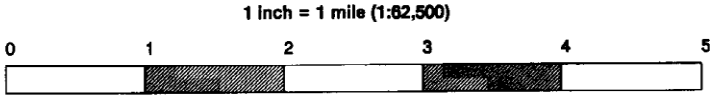
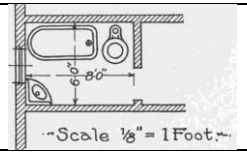
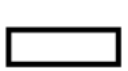
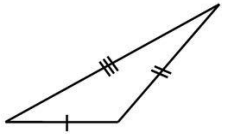
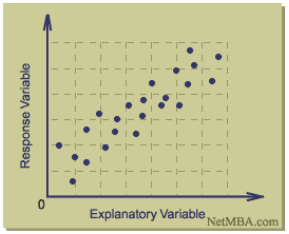
Parallelogram	Quadrilateral that have opposite sides parallel and equal in length. Opposite angles are also equal	
Pentagon	Five-sided polygon	
Per	= 1	Miles **PER** Hour 
Percent	Part out of 100	**/100** **100%**
Percent Decrease	The amount the price of an item went down from the original	**1. Determine the decreased amount** • **$5 to $4 = $1 decrease** **2. Divide by the old value** • **$1/$5 = 0.2** **3. Convert to a percentage** • **0.2 x 100 = 20% decrease**
Percent Error	The approximate error in data	$\frac{\lvert\text{Approximate Value - Exact Value}\rvert}{\lvert\text{Exact Value}\rvert} \times 100\%$
Percent Increase	The amount the price of an item went up from the original	**1. Determine the increased amount** • **$5 to $6 = $1 increase** **2. Divide by the old value** • **$1/$5 = 0.2** **3. Convert to a percentage** • **0.2 x 100 = 20% increase**

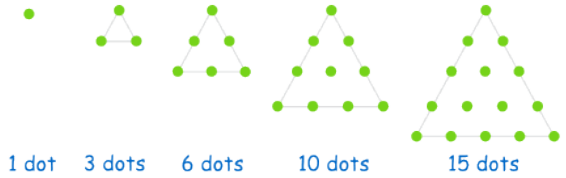
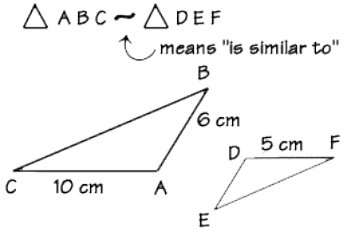
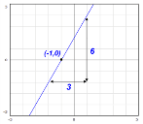
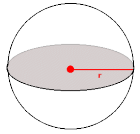
Perfect Cube	A whole number created by multiplying it by itself three times - cubing (n^3) a whole number (Perfect cubes: 1, 8, 27, 64))	**$1^3 = 1$** **$2^3 = 8$** **$3^3 = 27$** **$4^3 = 64$** **$5^3 = 125$** **$6^3 = 216$** **$7^3 = 343$** **$8^3 = 512$** **$9^3 = 729$** **$10^3 = 1000$** **$11^3 = 1331$** **$12^3 = 1728$** **$13^3 = 2197$** **$14^3 = 2744$** **$15^3 = 3375$**
Perfect Square	A whole number created by multiplying it by itself - squaring (n^2) a whole number (Perfect squares: 1, 4, 9, 16)	$1^2 = 1$ $2^2 = 4$ $3^2 = 9$ $4^2 = 16$ $5^2 = 25$ $6^2 = 36$ $7^2 = 49$ $8^2 = 64$ $9^2 = 81$ $10^2 = 100$ $11^2 = 121$ $12^2 = 144$ $13^2 = 169$ $14^2 = 196$ $15^2 = 225$ $16^2 = 256$ $17^2 = 289$ $18^2 = 324$ $19^2 = 361$ $20^2 = 400$ $21^2 = 441$ $22^2 = 484$ $23^2 = 529$ $24^2 = 576$ $25^2 = 625$ $26^2 = 676$ $27^2 = 729$ $28^2 = 784$ $29^2 = 841$ $30^2 = 900$
Perimeter	Distance around an object	
Perpendicular	Lines that form a right angle	
Pi	**3.14** or $\frac{22}{7}$	π
Polygon	• Multi-Sided closed figure • Must Contain all straight sides	
Population	Whole group from which a sample is taken	

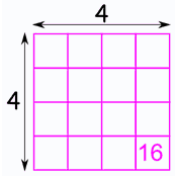
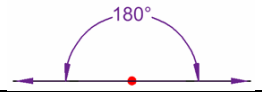
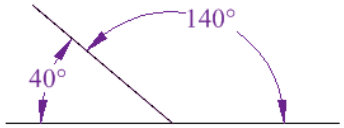
Positive	Numbers to the right of zero on the number line	
Predict	Based on data make an estimation of something that might happen in the future or will be a consequence of the current data	
Prime	A number that can be divided evenly by only one and itself	Example: 2, 3, 5, 7, 11, 13, 17…
Prism	A solid figure that has two faces that are congruent (the same or equal)	
Probability	The chance something will happen (the likelihood of an event taking place	
Product	Answer to a multiplication problem	Factor x Factor = **Product** 5 x 4 = **20**
Proportion	Two ratios set equal to each other	$\frac{33}{12} = \frac{11}{4}$
Pyramid	A solid object where: • Base is a polygon • Sides are triangles which meet at the top (Apex)	
Pythagorean Theorem	Right Angle Triangle – The long side (hypotenuse) squared equals the sum of the squares of the other two sides	$a^2 + b^2 = c^2$ 

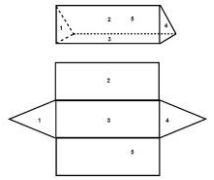
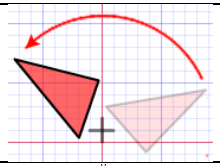
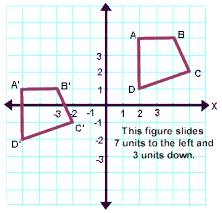
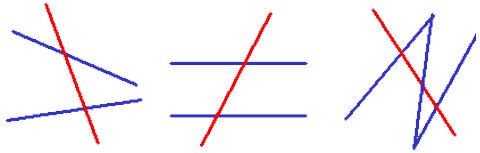
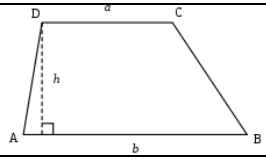
Quadrilateral	Four sided figure	
Qualitative	Information (Data) that describes something	
Quantitative	Information (Data) that can be **counted** or **measured**	
Quantity	How much there is of something	
Quotient	Answer to a division problem	Dividend ÷ Divisor = **Quotient** 45 ÷ 9 = **5**
Radius	Distance from the center to the edge of a circle	
Random Sample	A selection that is chosen randomly (by chance – no prediction)	
Range	The difference between the lowest and highest value	5, 12, 13, 15, 24 Range = 24 – 5 = **19**
Rate	Ratio that compares two different quantities using different units	Miles per hour $ per gallon
Ratio	A comparison of two quantities by division Written in 3 different ways	Miles **:** Hour Miles **to** Hour Miles **/** Hour

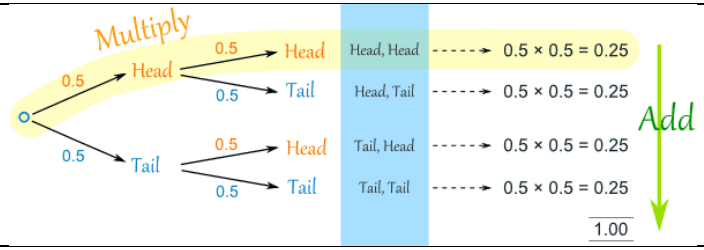
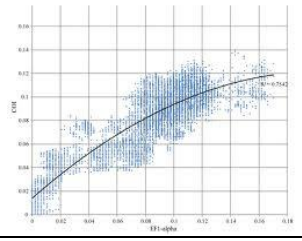
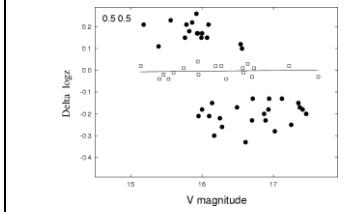
Rational Number	Number that can be made by dividing one integer by another	Example: 0.5, 1.73, -15.23, 5/3
Reciprocal	Number you multiply another number to get one (1)	
Rectangle	4 sided figure with right angles and two sets of equal sides	
Rectangular Prism	Solid object that has six (6) sides that are all rectangles	
Rectangular Pyramid	A solid object where: • Base is a rectangle or square • Sides are triangles which meet at the top (Apex)	
Reflection	An image or shape as it would be seen in a mirror (reflects over an area)	
Regular Polygon	All sides and angles are equal	
Repeating Decimal	A fraction that when written as a decimal repeats in a pattern that goes on forever	Example: 1/3 = 0.3333333… $0.\overline{3}$
Right (Angle)	Angle that is exactly 90˚	

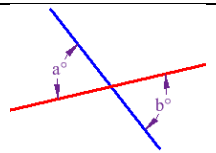
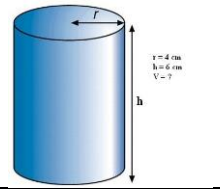
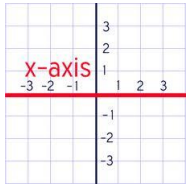
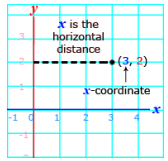
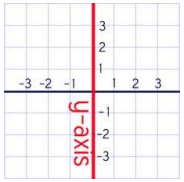
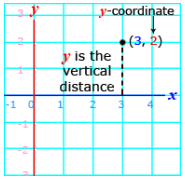
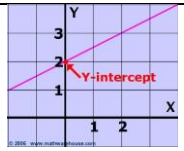
Right Prism	A prism that has the bases that line up one on top of the other. (Lateral faces are rectangles) Prisms that can be stacked straight up on top of each other	
Rotation	A circular movement	
Round	**(0 – 4)** Four or Less → Let it rest **(5 – 9)** 5 or More → Raise the Score	**45.23 → 45**
Scale	The ratio of the length of a model to the real thing	
Scale Drawing	A drawing that shows a real object with accurate sizes but they have been reduced or enlarged using a scale	
Scale Factor	The magic number that all of the side lengths of one figure are multiplied by to get all of the side lengths of new figure	 **SF = 2.5**
Scalene Triangle	Triangle with all three sides having different lengths	
Scatter Plot	A graph of plotted points that shows the relationship between two sets of data *Positive Correlation*: Up to the right *Negative Correlation*: Down to the right *No Correlation*: Random dots throughout	

Sequence	List of numbers or objects in special order	
Similar	A shape is similar if: • Same Shape • Same Angles • Same Side to Side Ratios • Scale Factor $\sim$	
Simplify	Reduce a number to make as simple as possible. (No other number other than 1 can go into both numbers.	$\frac{4}{8} = \frac{1}{2}$
Slope	How steep a straight line is $m = \frac{y_2 - y_1}{x_2 - x_1}$	 $y = \underline{m}x + b$
Solution	Answer to a problem	$4 + 3 = \underline{7}$
Sphere	Circular 3-D shape – Like a ball	
Square	4-sided polygon that has all four sides of equal length and equal 90˚ angles	

Square Root	*The number* that is multiplied by itself that gives you the perfect square. (See Perfect Square) $\sqrt{}$ Square Root | Square Root | Square Root | Square Root $\sqrt{1}=1$ | $\sqrt{81}=9$ | $\sqrt{289}=17$ | $\sqrt{625}=25$ $\sqrt{4}=2$ | $\sqrt{100}=10$ | $\sqrt{324}=18$ | $\sqrt{676}=26$ $\sqrt{9}=3$ | $\sqrt{121}=11$ | $\sqrt{361}=19$ | $\sqrt{729}=27$ $\sqrt{16}=4$ | $\sqrt{144}=12$ | $\sqrt{400}=20$ | $\sqrt{784}=28$ $\sqrt{25}=5$ | $\sqrt{169}=13$ | $\sqrt{441}=21$ | $\sqrt{841}=29$ $\sqrt{36}=6$ | $\sqrt{196}=14$ | $\sqrt{484}=22$ | $\sqrt{900}=30$ $\sqrt{49}=7$ | $\sqrt{225}=15$ | $\sqrt{529}=23$ $\sqrt{64}=8$ | $\sqrt{256}=16$ | $\sqrt{576}=24$	$\sqrt{36} = 6$ $6 \times 6 = 36$ 
Stem and Leaf	A plot where ach data value is split into a "leaf" (usually the last digit) and a "stem" (the other digit)	Example: 32 = 3 (stem) and 2 (leaf) Number of Sit-Ups Stem | Leaves The tens digits are called the *stems.* 3 | 4 6 8 8 4 | 0 3 6 7 7 5 | 0 0 1 2 The ones digits are called the *leaves.* Key: 3 | 6 = 36
Straight (Angle)	Line - 180˚	
Substitution	Replacing a variable with a number	x = 4 3 + 2 - x 3 + 2 - 4
Sum	Answer to addition problem	Addend + Addend = **Sum** 4 + 3 = **7**
Supplementary	Two angles that add up to 180 degrees	

Surface Area	Total area of a three-dimensional object *See cheat sheet for formulas*	
Table	Numbers or quantities arranged in rows and columns	"What sport do you play?" Sport / People Soccer 106 Tennis 45 Gymnastics 54 Swimming 82 Track 68
Tax	Percentage of the cost of an item added to the total cost	
Terminating Decimal	Decimal number that has digits that stop	**0.5**
Transformation	Moving a shape in a different position, but it will *not* change shape, size, area, angles or lengths. (See Rotation & Reflection)	
Translation	Moving a shape, without rotating or flipping it (Sliding)	
Transversal	A line that crosses at least two other lines	
Trapezoid	Four sided figure with one pair of parallel sides	

Tree Diagram	A diagram to help you determine the probability of an event • Multiply along branches • Add along columns	
Unique	Leading to only one result	4 + 5 = 9
Unit	One – single item	 One Ounce
Unit Rate	Amount ***per*** item (One Item)	
Variable	A letter that represents a number in an equation or expression	**$5 + x = 15$** ***x* is the variable**
Variability	How close or far apart a set of data is	 
Vertical	Runs up and down	

Vertical Angles	Vertical angles are angles that are opposite each other when two lines cross • Vertical angles are always congruent	
Volume	The amount of space a 3-dimensional object takes up. ****Filling**** *See Cheat Sheet for Formulas*	
X-axis	Line graph that runs horizontally	
X-Coordinate	Horizontal value in a coordinate pair	
Y-axis	Line graph that runs vertically	
Y-Coordinate	Vertical value in a coordinate pair	
Y-Intercept	The point in which the line crosses the y-axis	 $y = mx + \underline{b}$