1st Nine Weeks

Unit 1 Operations with Rational Numbers

1. Absolute Value	The distance between a number and zero on the number line. The symbol for absolute value is shown in this equation: |-8| = 8
2. Additive Inverse	The additive inverse of any number **x** is the number that gives zero when added to **x**. The additive inverse of 5 is -5.
3. Integer	The set of whole numbers and their opposites {…-3, -2, -1, 0, 1, 2, 3…}
4. Opposite Numbers	Two numbers that lie the same distance from 0 on the number line but in opposite directions.
5. Zero Pair	Pair of numbers whose sum is zero.
6. Negative Numbers	The set of numbers less than zero.
7. Positive Numbers	The set of numbers greater than zero.
8. Natural Numbers	The set of numbers {1, 2, 3, 4…}. Natural numbers can also be called counting numbers.
9. Rational Numbers	A ratio that can be written in the form a/b where a and b are integers and b ≠ 0.
10. Complex fraction	A fraction where the numerator, denominator, or both contain a fraction.
11. Convert	A change in the form of a measurement, different units, without a change in the size or amount.
12. Credit	A deposit or addition into a checking or savings account.
13. Debit	A deduction or withdrawal from a checking or savings account.
14. Multiplicative Inverse	Numbers that multiply to equal the one. The reciprocal of a number.
15. Repeating Decimal	A decimal number in which a digit or group of digits repeats without end.
16. Terminating Decimal	A decimal that contains a finite number of digits.

Unit 2 Expressions and Equations

17. expression	A statement containing variables, constants, and operations. Does not have an equal sign.
18. Area	The size a surface takes up, measured in square units.
19. Coefficient	The number part of a term that includes a variable. For example, 3 is the coefficient of the term 3x.
20. Constant	A quantity having a fixed value that does not change or vary, such as a number.
21. Distribute	A way of simplifying expressions; to spread out terms equally across an expression.
22. Equation	A mathematical statement that says that two expressions have the same value; any number sentence with an =.
23. Evaluate	To find the value of a numerical or algebraic expression.
24. Factor	To break down a number or expression into values that can be multiplied together to get the original number or expression.
25. Inequality	A mathematical expression which shows that two quantities are not equal. Contains the symbols ≥, <, >, or ≤.
26. Like terms	Terms that contain not only same variable but same exponent.
27. Perimeter	The total distance around a shape.
28. Substitute	To replace variables with numbers.
29. Term	A number, a variable, or a product and a number and variable.
30. Variable	A symbol, usually a letter, which is used to represent one or more numbers.

2nd Nine Weeks

Unit 3 Ratios and Proportional Relationships

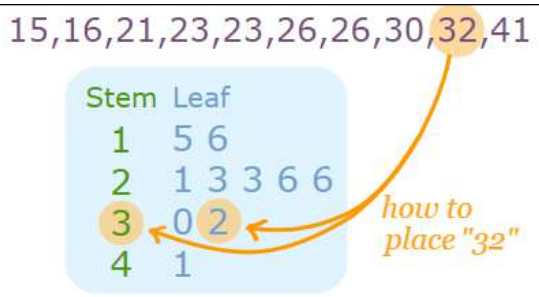
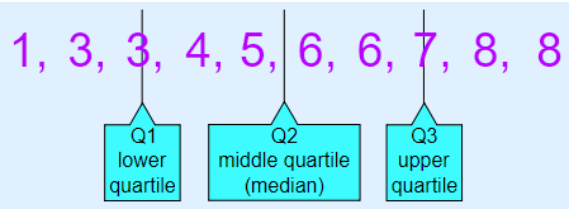
31. Constant of proportionality	The constant value of the ratio of two proportional quantities x and y; usually written y = kx, where k is the factor of proportionality.
32. Cross multiply (cross product)	A product found by multiplying the numerator of one fraction by the denominator of another fraction and the denominator of the first fraction by the numerator of the second.
33. Equivalent Fractions	Fractions with the same value, reduce to the same value The fractions $\frac{1}{2}, \frac{2}{4}, \frac{3}{6}$ and $\frac{4}{8}$ are equivalent
34. Percent	A fraction, or ratio, in which the denominator is assumed to be 100. The symbol % is used for percent.
35. Proportion	A statement of equality between two ratios. An equation of fractions in the form: $\frac{a}{b} = \frac{c}{d}$.
36. Rate	A ratio that compares different kinds of units.
37. Rate of change	A rate that describes how one quantity changes in relation to another quantity. If x is the independent variable and y is the dependent variable, then $\text{rate of change} = \frac{\text{change in } y}{\text{change in } x}$
38. Ratio	A pair of numbers that compares different types of units.
39. Scale drawing	A drawing that is a reduction or enlargement of the original.
40. Scale factor	The ratio of any two corresponding lengths in two similar geometric figures.
41. Similar Figures	Two figures that have the same shape are said to be similar. When two figures are similar, the ratios of the lengths of their corresponding sides are equal.
42. Unit rate	A rate in which the second term is 1. Some common unit rates are miles (or kilometers) per hour, cost per item, earnings per week, etc.

43. Adjacent Angle	Two angles that share both a side and a vertex.
44. Circumference	The distance around a circle.
45. Complementary Angles	Two angles whose sum is 90 degrees.
46. Congruent	Having the same size, shape and measure. Corresponding angles are congruent, corresponding sides are congruent (ratio = 1) $\angle A \cong \angle B$ denotes that $\angle A$ is congruent to $\angle B$.
47. Cross- section	A plane figure obtained by slicing a solid with a plane.
48. Diameter	The line segment joining two points on a circle and passing through the center of the circle.
49. Irregular Polygon	A polygon with sides not equal and/or angles not equal.
50. Parallel Lines	Two lines are parallel if they lie in the same plane and they do not intersect. AB ‖ CD denotes that side AB is parallel to side CD.
51. Perpendicular	Two lines are perpendicular if the angle between them is 90 degrees.
52. Pi	The ratio of the circumference of a circle to its diameter.
53. Radius	The distance from the center to a point on a circle; the line segment from the center to a point on a circle.
54. Regular Polygon	A polygon with all sides equal (equilateral) and all angles equal (equiangular).
55. Similar	Having the same shape but different size. Corresponding angles are congruent, corresponding sides are proportional $\angle A \sim \angle B$ denotes that $\angle A$ is similar to $\angle B$.
56. Supplementary Angles	Two angles whose sum is 180 degrees.
57. Vertical Angles	Two nonadjacent angles formed by intersecting lines or segments. Also called opposite angles. Their measures are congruent.

3rd Nine Weeks

Unit 5 Inferences

58. Box and Whisker Plot	A type of data plot that displays the quartiles and range of a data set.
59. Frequency	The number of times a particular item appears in a data set.
60. Inter-Quartile Range (IQR)	The difference between the upper and lower quartile values in a set of data $IQR = Q_3 - Q_1$
61. Maximum value	The largest value in the data set, when ordered from least to greatest.
62. Mean	In a data set, the sum of all the data points, divided by the number of data points; average.
63. Measures of Center (central tendency)	A value that attempts to describe a set of data by identifying the central position of the data set. The common measures of center are the mean, median, and mode.
64. Measures of Spread	Refers to how the data within the set is "spread out" (or "dispersed", or "scattered") about the mean. Include the range, quartiles and the interquartile range
65. Median	The middle number in a data set when the data are put in order; a type of average.
66. Minimum value	The smallest value in the data set, when ordered from least to greatest.
67. Mode	A type of average; the number (or numbers) that occurs most frequently in a set of data.
68. Mutually Exclusive event	Two or more events that cannot occur at the same time.
69. Outlier	A value that "lies outside" (is much smaller or larger than) most of the other values in a set of data.
70. random	Without order. Not able to be predicted. Happening by chance.
71. Range	In statistics, the difference between the largest and the smallest numbers in a data set.
72. Sample	A selection taken from a larger group (the "population") so that you can examine it to find out something about the larger group.
73. Stem and Leaf Plot	A plot where each data value is split into a "leaf" (usually the last digit) and a "stem" (the other digits).

	 For example "32" is split into "3" (stem) and "2" (leaf).
74. Quartile	The values that divide a list of numbers into quarters 
75. Frequency table	A data listing which also lists the frequencies of the data.
76. Statistics	The science of collecting, organizing, and analyzing data.
77. Population	The whole group from which a sample is taken

Unit 6 – Probability

78. Compound Event	The probability of two or more events happening at the same time.
79. Dependent event	Two events in which the outcome of the second is influenced by the outcome of the first.
80. Event	A single result of an experiment
81. Experimental Probability	The result of an experiment or simulation after an experiment. (what actually happens) $\frac{\text{Number of times an Event occurs}}{\text{Number of Trials}}$
82. Independent events	Two events in which the outcome of the second is not affected by the outcome of the first.
83. Probability	For an experiment, the total number of successful events divided by the total number of possible events.
84. Relative Frequency	How often something happens divided by all outcomes
85. Outcome	In probability, a possible result of an experiment.
86. Sample space	For an experiment, the sample space includes all the possible outcomes.
87. Simple Event	events where one experiment happens at a time and has a single outcome
88. Simulation	A mathematical model to recreate a situation, often repeatedly, so that the likelihood of various outcomes can be more accurately estimated.
89. Theoretical Probability	What is expected to happen based on the possible outcomes, assuming equally likely events. (what we think will happen) $\frac{\text{Number of favorable (desired) outcomes}}{\text{Total number of possible outcomes}}$
90. Tree diagram	A diagram that shows outcomes of an experiment

4th nine weeks – list from 8th grade 1st nine weeks!!!