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Algebra Semester 2 Vocabulary Study Guide

Bold Italic Terms will be on matching quiz. All others will be on define in your own words quiz.

1. *absolute value*
2. *algebraic expression*
3. *area*
4. axes
5. *base*
6. *best-fit line (line of best fit)*
7. *circumference*
8. coefficient
9. *consecutive integers*
10. *constant function*
11. *constant of variation*
12. *continuous function*
13. coordinate plane
14. *correlation coefficient*
15. *dependent variable*
16. *diameter*
17. *dimensional analysis*
18. *direct variation*
19. *discrete function*
20. domain of a function
21. equation
22. *exponent*
23. *formula*
24. *function*
25. *function notation*
26. *independent variable*
27. inequality
28. intercepts
29. like terms
30. *line of fit (trend line)*
31. *line of symmetry*
32. *linear equation*
33. *linear function*
34. *linear regression*
35. *mapping diagram*
36. *mean*
37. *median*
38. *mode*
39. negative correlation
40. no correlation
41. order of operations
42. ordered pair
43. origin
44. parallel lines (specifically slope)
45. *percent of decrease*
46. *percent of change*
47. *percent of increase*
48. perpendicular lines (specifically slope)
49. *point-slope form of a linear equation*
50. positive correlation
51. *power*
52. proportion
53. *radius*
54. *range of a data set*
55. range of a function
56. *rate*
57. *rate of change*
58. ratio
59. *reciprocals*
60. *relation*
61. *root of an equation*
62. *scale*
63. *scale model*
64. *scatter plot*
65. *sequence*
66. *simplify*
67. slope
68. *slope-intercept form of a linear equation*
69. *solution*
70. *surface area*
71. term
72. undefined slope
73. *unit rate*
74. variable
75. *volume*
76. x-axis
77. x-coordinate
78. x-intercept
79. y-axis
80. y-coordinate
81. y-intercept
82. zero slope

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Algebra Chapter 0 Vocabulary Study Guide

- U 1. Absolute Value
- E 2. Area
- F 3. Bar Graph
- C 4. Box-and-Whisker Plot
- V 5. Circle
- B 6. Circle Graph
- P 7. Circumference
- S 8. Complements
- G 9. Cumulative Frequency
- K 10. Diameter
- R 11. Equally Likely
- L 12. Five Number Summary
- D 13. Frequency Table
- H 14. Histogram
- I 15. Integers
- M 16. Interquartile Range
- J 17. Irrational Numbers
- A 18. Line Graph
- O 19. Mean
- Q 20. Median
- N 21. Mode
- T 22. Natural Numbers

- ~~A.~~ A ___ usually shows how data changes over a period of time using ordered pairs and connected lines
- ~~B.~~ A ___ is a graph that shows the relation between parts of the data and the whole.
- ~~C.~~ A ___ is a graphical representation of the five-number summary of a data set. The box represents the interquartile range.
- ~~D.~~ A ___ uses tally marks to record and display frequencies of events.
- ~~E.~~ The ___ is the number of square units needed to cover a surface
- ~~F.~~ A ___ compares categories of data with bars representing the frequencies. There are spaces between the bars.
- ~~G.~~ The ___ for each event is the sum of its frequency and the frequencies of all preceding events
- ~~H.~~ A ___ is a type of bar graph that is used to display numerical data that have been organized into equal intervals. There is no space between the bars.
- ~~I.~~ ___ are the positive and negative whole numbers such as ..., -2, -1, 0, 1, 2, ...
- ~~J.~~ ___ are the set of numbers that cannot be expressed as terminating or repeating decimals such as π
- ~~K.~~ ___ is the distance across a circle through its center.
- ~~L.~~ The three quartiles along with the minimum and maximum values are called the ___ of a data set.
- ~~M.~~ ___ is the difference between the upper and lower quartiles of a data set. This represented by the box in a box-and-whisker plot/
- ~~N.~~ The data value that occurs most often in a data set is the
- ~~O.~~ The ___ is the sum of all the values in a data set divided by the total number of values in the set
- ~~P.~~ ___ is the distance around a circle
- ~~Q.~~ The ___ is the middle value in a data set when the data is arranged in numerical order.
- ~~R.~~ When the probability of two events is the same we say each event is ___
- ~~S.~~ The probability of a an event happening and the probability of the event not happening are called ___
- ~~T.~~ ___ is the set of counting numbers such as 1, 2, 3, ...
- ~~U.~~ The ___ of a numbers is its distance from zero on a number line
- ~~V.~~ The set of all point in a plane that are the same distance from a given point is a ___

- P 23. Odds
- E 24. Opposites/Additive Inverses
- D 25. Outlier
- J 26. Percent
- L 27. Percent Proportion
- O 28. Perfect Square
- S 29. Perimeter
- A 30. Probability
- H 31. Qualitative Data
- K 32. Quantitative Data
- F 33. Radius
- G 34. Range
- Q 35. Rational Numbers
- T 36. Reciprocals/Multiplicative Inverses
- B 37. Sample Space
- I 38. Square root
- C 39. Stem-and-Leaf Plot
- R 40. Surface Area
- M 41. Volume
- N 42. Whole Numbers

- ~~A.~~ The ___ of an event is the ratio of the number of favorable outcomes to the total number of outcomes for the event.
- ~~B.~~ The list of all possible outcomes is the ___
- ~~C.~~ A ___ is a way to organize and display data using the digits of the least place value as the leaves, and the rest of the digits form the stems.
- ~~D.~~ An ___ is an extremely high or extremely low value when compared to the rest of the values in the set.
- ~~E.~~ Two numbers whose sum is zero are ___
- ~~F.~~ The distance from the center to any point on the circle is the ___. Or half the diameter.
- ~~G.~~ The ___ is a measure of spread which is the difference between the greatest value and the least value of a data set.
- ~~H.~~ ___ is data that can be organized into different categories.
- ~~I.~~ A ___ is one of two equal factors of a number
- ~~J.~~ ___ is a ratio that compares a number to 100.
- ~~K.~~ ___ is data that have units and can be measured
- ~~L.~~ The ___ is the ratio of a part of something to the whole is equal to percent written as a fraction $\frac{\text{is}}{\text{of}} = \frac{\%}{100}$
- ~~M.~~ ___ is the measure of space occupied by a solid.
- ~~N.~~ ___ is the set of counting numbers including zero such as 0, 1, 2, ...
- ~~O.~~ A ___ is a number whose square root is a rational number.
- ~~P.~~ The ___ of an event occurring is the ratio that compares the number of ways an event can occur (successes) to the number of ways it cannot occur (failures).
- ~~Q.~~ ___ is the set of numbers that can be written in the form $\frac{a}{b}$ where $b \neq 0$
- ~~R.~~ ___ is the sum of the areas of all the surfaces, or faces, of a solid
- ~~S.~~ The ___ is the distance around a closed figure
- ~~T.~~ ___ are two numbers whose product is 1. (the number flipped over)

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Algebra Chapter 1 Vocabulary Study Guide

- N 1. algebraic expression
- K 2. axes
- B 3. base
- A 4. coefficient
- Q 5. continuous function
- D 6. coordinate plane
- F 7. decreasing
- S 8. dependent variable
- H 9. discrete function
- G 10. domain
- M 11. element
- I 12. end behavior
- Q 13. equation
- W 14. equivalent expressions
- E 15. evaluate
- P 16. exponent
- J 17. function
- T 18. function notation
- C 19. increasing
- U 20. independent variable
- V 21. intercepts
- R 22. like terms
- L 23. line of symmetry

- A. Is the number that is multiplied by a variable for example in $5x$, it is the 5
- B. Is the number that is used as a factor, for example in 3^2 it is the 3
- C. When the graph of a function goes up as we move left to right across the graph it is _____
- D. The _____ is formed by the intersection of two perpendicular number lines called axes
- E. To _____ an expression means to find its numerical value (to find the answer)
- F. When the graph of a function goes down as we move left to right across the graph it is _____
- G. The set of all x-coordinates of a relation is called the _____
- H. A _____ is a function whose graph consists of points that are not connected
- I. The _____ describes the values of the function at the positive and negative extremes in the domain
- J. A special type of relation where each member of the domain is paired with exactly one and only one range value (for every x-value there is one and only one y-value)
- K. The two number lines that intersect to form the coordinate plane are called _____.
- L. The line that divides a graph in half (creates a mirror image) is the _____
- M. Each object or number in a set is called an _____
- N. _____ is an expression that contains at least one variable and one operation.
- O. _____ is a mathematical sentence that contains an equal sign.
- P. Tells how many times the base is used as a factor for example in 3^2 it is the 2
- Q. A _____ is a function whose graph is a connected lines and/or a smooth curves
- R. Are terms that contain the same variables raised to the same powers
- S. The output $f(x)$ of a function is called the _____ because it depends on the input value of the function.
- T. When the set of ordered pairs described by an equation satisfies the definition of a function, the equation can be written in _____, which replaces the y with $f(x)$.
- U. The input variable, the x, is called the _____
- V. The points where a graph touches or crosses an axis are the _____
- W. Two expressions that represent the same number/value are _____

- B 24. mapping diagram
- D 25. multiplicative inverse
- E 26. nonlinear function
- L 27. order of operations
- S 28. ordered pair
- Q 29. origin
- M 30. power
- V 31. range
- H 32. reciprocals
- E 33. relation
- J 34. relative maximum
- P 35. relative minimum
- A 36. set
- I 37. simplify
- W 38. solution
- U 39. term
- G 40. variable
- F 41. x-axis
- R 42. x-coordinate
- K 43. x-intercept
- N 44. y-axis
- T 45. y-coordinate
- O 46. y-intercept

- ~~A.~~ A set of ordered pairs is called a _____
- ~~B.~~ A _____ is a diagram that uses ovals and arrows to illustrate how each element of the domain is pair with an element from the range
- ~~C.~~ A _____ is a collection of objects or numbers that is often shown using braces { }
- ~~D.~~ A number and its reciprocal are called _____. Their product is 1.
- ~~E.~~ A _____ is a function whose graph is not a straight line
- ~~F.~~ The horizontal number line is called the _____
- ~~G.~~ Is a letter or symbol used to represent a value that can change
- ~~H.~~ Two numbers are _____ if their product is 1. For example $\frac{2}{3}$ and $\frac{3}{2}$
- ~~I.~~ To _____ an expression means to perform all possible operations (do all the math you can do).
- ~~J.~~ The _____ is the extrema point on a graph that is the highest of all the points nearby
- ~~K.~~ The point where a graph touches or crosses the x-axis
- ~~L.~~ Tells you which operation to perform first often called PEMDAS
- ~~M.~~ Is an expression written with an exponent and a base or the value of such an expression for example: 3^2
- ~~N.~~ The vertical number line is called the _____
- ~~O.~~ The point where the graph touches or crosses the y-axis
- ~~P.~~ The _____ is the extrema point on a graph that is the lowest of all the points nearby
- ~~Q.~~ The point of intersection of the axes is called the _____ and represents 0 on each number line. $(0, 0)$
- ~~R.~~ The 1st number in an ordered pair is the _____
- ~~S.~~ Points on the coordinate plane are described using _____ and is written as (x, y)
- ~~T.~~ The 2nd number in an ordered pair is the _____
- ~~U.~~ A _____ is one part of an expression, it may be a number, variable, or the product/quotient of numbers and variables
- ~~V.~~ The set of all y-coordinates of a relation is called the _____
- ~~W.~~ Any value of the variable that make the equation true (the answer) is the _____

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Algebra Chapter 2 Vocabulary Study Guide

- Q 1. addition property of equality
- V 2. consecutive integers
- H 3. dimensional analysis
- T 4. division property of equality
- E 5. equivalent equations
- F 6. formula
- O 7. identities
- B 8. literal equation
- K 9. multiplication property of equality
- U 10. multi-step equation
- R 11. percent decrease
- G 12. percent of change
- M 13. percent increase
- P 14. proportion
- A 15. rate
- D 16. ratio
- L 17. reciprocal
- N 18. scale
- I 19. scale model
- S 20. solve an equation
- C 21. subtraction property of equality
- J 22. unit rate

- ~~A.~~ The ratio of two measurements having different units of measure is called a ____.
- ~~B.~~ An equation/formula that involves several variable is a ____
- ~~C.~~ The property that states the same number can be subtracted from both sided of an equation is called the ____
- ~~D.~~ A ____ is a comparison of two numbers by division
- ~~E.~~ ____ are equations that have the same solution.
- ~~F.~~ A ____ is a rule for the relationship between certain quantities.
- ~~G.~~ ____ is the ratio of the change in an amount to the original amount expressed as a percent
- ~~H.~~ The process of carrying units throughout a computation is ____.
- ~~I.~~ A drawing/model of too large or too small to be convenient at actual size such as a blueprint or a map is a ____
- ~~J.~~ A rate that tells how many of one item is being # compared to 1 of another item is called a ____ 1
- ~~K.~~ The property that states both sides of an equation can be multiplied the same number is called the ____
- ~~L.~~ A ____ is the multiplicative inverse of a number which is used to solve equations.
- ~~M.~~ When the new number is greater than the original number the percent of change is a ____
- ~~N.~~ The rate that is used to make a scale model is called a ____
- ~~O.~~ Equations that are true for all values of the variables are called ____.
- ~~P.~~ An equation stating two ratio are equal is a ____.
- ~~Q.~~ The property that states the same number can be added to both sided of an equation is called the ____
- ~~R.~~ When the new number is less than the original number the percent change is a ____
- ~~S.~~ To ____ means to find the value of the variable that makes the equation true.
- ~~T.~~ The property that states both sided of an equation can be divided by the same number is called the ____
- ~~U.~~ An equation that requires more than one step to solve is called a ____.
- ~~V.~~ ____ are integers that are in counting order such as 4, 5, 6 or n, n+1, n+2. Counting by two will result in odd and even integers depending on whether the starting number, n, is odd or even.

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Algebra Chapter 3 Vocabulary Study Guide

- D 1. arithmetic sequence
- H 2. common difference
- G 3. constant
- R 4. constant variation
- P 5. direct variation
- T 6. family ^{of} graphs
- A 7. linear equation
- L 8. linear function
- K 9. negative slope
- O 10. parent function
- B 11. positive slope
- C 12. rate of change
- M 13. root
- J 14. sequence
- F 15. slope
- E 16. standard form
- Q 17. undefined slope
- I 18. x-intercept
- S 19. y-intercept
- N 20. zero slope
- U 21. zeros

- ~~A.~~ A ___ is an equation that forms a line when it is graphed
- ~~B.~~ If the function values are increasing over the entire domain (the line rises from left to right) then the function has a ___
- ~~C.~~ ___ is the ratio that describes how much one quantity changes with respect to the change in another quantity. Often called the $\frac{\text{change in } y}{\text{change in } x}$
- ~~D.~~ A sequence in which the difference between successive terms is constant is called an ___
- ~~E.~~ Form that is written $Ax + By = C$ where A, B, and C are integers, A and B are both non-zero, and A is positive.
- ~~F.~~ The ___ is the ratio of the change in the y coordinate (rise) to the change in the x-coordinate (run). $m = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$
- ~~G.~~ The C in the standard form of a linear equation is called a ___ (it is just a number)
- ~~H.~~ The difference between successive terms in an arithmetic sequence is called the ___
- ~~I.~~ The point where a graph crosses or touches the x-axis is the ___
- ~~J.~~ A ___ is a set of numbers.
- ~~K.~~ If the function values are decreasing over the entire domain (the line falls from left to right) then the function has a ___
- ~~L.~~ A ___ is a function for which the graph is a line
- ~~M.~~ The solution or ___ of an equation is any value that makes the equation true.
- ~~N.~~ If the function values are constant over the entire domain (the line is horizontal) then the function has a ___
- ~~O.~~ The simplest linear function $f(x) = x$ is called the ___
- ~~P.~~ ___ is an equation where y varies directly as x, $y = kx$
- ~~Q.~~ If the relation is not a function (vertical line) then the function has a ___
- ~~R.~~ The slope or the k value in a direct variation is the ___
- ~~S.~~ The point where a graph crosses or touches the y-axis is the ___
- ~~T.~~ A ___ is a group of graphs with one or more similar characteristics
- ~~U.~~ Values of x for which $f(x) = 0$ are called ___. These values of x are located at the x-intercepts of the function

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Algebra Chapter 4 Vocabulary Study Guide

- N 1. best-fit line (line of best fit)
- C 2. bivariate data
- J 3. constant function
- L 4. constraint
- K 5. correlation coefficient
- E 6. line of fit (trend line)
- F 7. linear interpolation
- B 8. linear extrapolation
- H 9. linear regression
- A 10. negative correlation
- P 11. no correlation
- G 12. parallel lines (specifically slope)
- O 13. perpendicular lines (specifically slope)
- M 14. point-slope form
- I 15. positive correlation
- Q 16. scatter plot
- D 17. slope-intercept form
- ~~A.~~ When all the points on a scatter plot trend down as you move left to right the plot is said to have a _____
- ~~B.~~ _____ is the process of using linear equations to make predictions about values that are beyond the range of the given data
- ~~C.~~ _____ is a set of data with two variables
- ~~D.~~ An equation of the form $y = mx + b$ where m is the slope and b is the y-intercept is in _____
- ~~E.~~ A _____ is a line that lies close to the data points and is used to model the trend of the data.
- ~~F.~~ _____ is the process of using linear equations to make predictions about values that is within the range of the given data
- ~~G.~~ _____ are two lines that never intersect and have the same slope
- ~~H.~~ _____ is the process of finding the line of best fit on a calculator or computer program.
- ~~I.~~ When all the points on a scatter plot trend up as you move left to right the plot is said to have a _____
- ~~J.~~ A _____ is a function that has a slope of zero and when graphed is a horizontal line.
- ~~K.~~ The _____ is the r value given by the calculator when using linear regression to find the line of best fit that tells how well the equation fits the data.
- ~~L.~~ _____ is a condition that a solution must satisfy.
- ~~M.~~ An equation of the form $y - y_1 = m(x - x_1)$ where m is the slope and (x_1, y_1) is on the line.
- ~~N.~~ The _____ is a more precise line of fit found using a calculator or a computer program.
- ~~O.~~ _____ are two lines that have opposite reciprocal slopes and intersect at a 90° angle.
- ~~P.~~ When there appears to be no relationship in a scatter plot the plot is said to have _____
- ~~Q.~~ A _____ shows the relationship between a set of data with two variables, graphed as ordered pairs on a coordinate plane.

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Algebra 1 Chapter 5 Vocabulary Study Guide

- G 1. absolute value
- H 2. between
- F 3. boundary
- J 4. closed half-plane
- H 5. compound inequality
- C 6. half-plane
- E 7. inequality
- K 8. intersection
- M 9. open half-plane
- L 10. set-builder notation
- D 11. solution of an inequality
- B 12. union
- A 13. within
- A is meant to be inclusive (includes the value) so we use \leq or \geq
- B. The combined regions that show the numbers that are solutions of either inequality is called _____
- C. The two pieces of a the coordinate plane are called _____ when they are cut by an linear inequality
- D. A _____ is any value of the variable that makes the inequality true
- E. Is a statement that compares two quantities using one of the following signs: $>$, \geq , $<$, \leq , or \neq
- F. The _____ is the line that divides the coordinate plane into two pieces
- G. Distance from zero on a number line written as $|x|$
- H. When two inequalities are combined into one statement by the words AND or OR, the result is called _____
- I. _____ is meant to be exclusive (does not include the value) so we use $<$ or $>$
- J. When the solution of the linear inequality is included we draw as solid line and the graph is a _____
- K. The overlapping region is ~~called~~ of a graph that shows the numbers that are solutions of both inequalities is called the _____
- L. _____ is a more concise way of writing a solution set which looks like $\{x|x \leq -6\}$
- M. When the solution of the linear inequality is excluded we draw as dotted line and the graph is a _____