

PARENT MASTERY GUIDE

ALGEBRA II

FIRST TERM

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| <ul style="list-style-type: none">• Order a given set of numbers• Identify a reciprocal• Stud relationships of subsets of real numbers• Explore absolute value• Use rations and proportions to represent real-world problems• Use delta notation• Construct matrices• Perform operations on algebraic expressions and equations• Multiply two polynomials• Determine the dimensions of a square• Area representation• Estimation• Multiply two numbers written in scientific notation• Translate a verbal sentence into an equation• Analyzing data in a table• Solve multi-step equations• Select a graph that best represents a given line• Select a graph that best represents a real-world situation• Identify a graph that best represents a solution to a one-variable inequality• Solve one-variable equations with fractions or decimals• Choose a graph of a two-variable inequality• Predict graphical transformations• Select the correct "parent function" for a set of functions• Collect and analyze real-world data• Apply algebra to real-world situations• Use different methods to solve linear systems | <ul style="list-style-type: none">• Solve quadratic equations by the best method available• Solve quadratic inequalities• Sketch a system of linear inequalities• Determine the measures of central tendency for a given set of data• Choose the matching linear graph when given a set of ordered pairs• Categorize the correlation of a scatter plot using real-world data• Find the equation for the line of best fit• Analyze data to make predictions• Analyze data using linear and quadratic functions• Identify the mean and standard deviation given the graph• Apply the Pythagorean theorem to a real-world problem• Apply formulas• Apply similar triangles• Locate a point in a three-dimensional coordinate system• Use matrices to find the area of a triangle• Apply the distance formula to find the equation of a circle• Draw conclusions using deductive reasoning |
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SECOND TERM

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| <ul style="list-style-type: none">• Perform basic operations using complex numbers• Identify the exponential form of a logarithmic expression• Simplify expressions with fractional and negative exponents• Determine the conjugate of a complex number• Analyze the relationships among sets of numbers• Select the inverse notation of powers and roots• Use factorial notation for coefficients in a binomial expansion• Predict zeros of function using Descartes' Rule of Signs• Determine the multiplicative inverse of a complex number• Add, subtract, and multiply algebraic expressions• Compare the GCF and LCM of algebraic expressions• Investigate factoring patterns• Multiply two numbers written in scientific notation• Apply properties of logarithms• Perform basic operations with algebraic fractions• Use functional notation for a given arithmetic sequence• Describe the transformation of a "parent function"• Determine the domain and range of a rational function• Determine the inverse of a logarithmic function• Explain a real-world situation from a non-linear graph• Analyze mathematical patterns• Explain restrictions in radical equation• Determine roots of a polynomial• Identify mean and standard deviation given a graph• Use the multiplication counting principle, permutations or combinations• Determine the theoretical probability of a simple event | <ul style="list-style-type: none">• Determine the theoretical probability of a compound event• Use measures of central tendencies• Predict the probability of a situation• Determine probability of mutually exclusive events• Use experimental probability to determine an event• Analyze the validity and abuse of data• Use the Pythagorean theorem for real-world problems• Formulate a series using sigma notation |
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