**Algebra 2**

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| **Expressions and Operations** |
| Rational algebraic expression | Monomial | Binomial | Trinomial | Polynomial |
| Linear expression | Quadratic expression | Complex algebraic fraction | Simple algebraic fraction | Rational expression |
| Rational exponent | Rationalizing denominators | Polynomial identities | Difference of squares | Sum and difference of cubes |
| Perfect square trinomials  | Imaginary number | Negative rational number | Complex number | Absolute value |
| Absolute value linear equation | Absolute value linear inequality | Quadratic equation | Discriminant of a quadratic equation | Real solution |
| Radical expression | Quadratic equation | Quadratic formula | Conjugate pairs | Real root  |
| Imaginary root |  |  |  |  |

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| **Equations and Inequalities** |
| Absolute value linear equation | Absolute value linear inequality | Quadratic equation | Discriminant of a quadratic equation | Real solution |
| Radical expression | Quadratic equation | Quadratic formula | Conjugate pairs | Real root  |
| Imaginary root |  |  |  |  |
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**Algebra 2**

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| **functions** |
| Sequence | Series | Explicit and Recursive Formulas | Sigma | Arithmetic sequence |
| Geometric sequence | Arithmetic series | Geometric series | Convergent infinite series | Domain/Range |
| Transformation of a function (Pre-image) | Parent function | Translation | Horizontal/Vertical shift | Reflection |
| Dilation | Inverse of a function | Zeros | Intercepts | Discontinuous function |
| Intervals | Increasing interval of a function | Decreasing interval of a function | Linear, quadratic, absolute value, square root, cube root, polynomial, exponential, logarithmic functions |
| Function | Absolute minima | Relative maxima | Relative minima | Relation |
| End behavior | Vertical and horizontal asymptote | Composition of functions | Polynomial function | x-intercept |
| Fundamental Theorem of Algebra | Complex roots | Repeating roots | Conjugate pair | Distinct roots |

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| **statistics** |
| Curve of best fit | Predictions | Scatterplot | Reasonableness of a mathematical model | Quadratic model |
| Exponential model | Direct variation | Proportional relationship | Constant of proportionality | Inverse variation |
| Inversely proportional | Independent variable | Dependent variable | Rational function | Joint variation |
| Normal distribution | Standard deviation | Mean | Z-scores |  |
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