



Let's  
Hit Our  
Targets in  
Algebra

*Lincoln School District*

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# Algebra



In  
Algebra  
We  
Will .....

## Evaluation and Terms

*Use correct arithmetical operations and notation to simplify symbolic expressions*

*Create arithmetic and geometric sequences to fit a given set of conditions*

*Determine the  $n$ th term in an arithmetic or geometric sequence*

*Simplify algebraic expressions and whether they are true or false*

*Use relations between slopes of parallel and perpendicular lines*

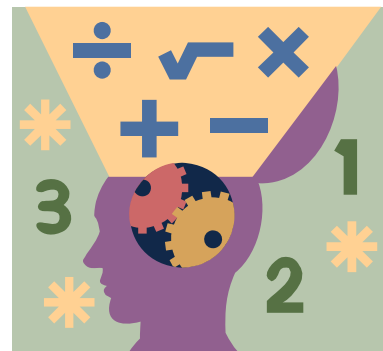
*For a quadratic equation with real coefficients, understand that if a complex number is a solution, then its conjugate is also a solution*

*Judge the completeness and correctness of alleged algebraic proofs*

*Use matrix equations to represent multiple linear equations*

*Use properties of logarithms*

*Use trigonometric identities to transform expressions*



## Graphing

*Understanding and interpret the graph of a system of equations and/or inequalities, including cases where there are no solutions*

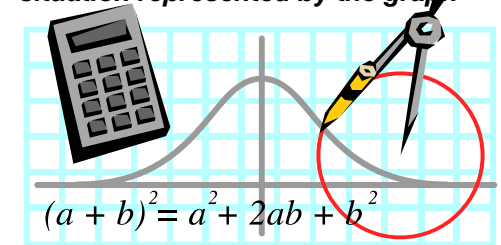
*Apply connections between equations, graphs, tables of values, and properties of common graphs and functions (e.g., lines, polynomials, ellipses, exponentials, absolute values)*

*Given a graph of  $f(x)$ , identify related graphs, such as  $[f(x)]$  and  $f([x])$*

*Understand the concept of asymptote, and find equations of asymptotes*

*Use function notations to express common transformations of a graph in the coordinate plane*

*Represent quantitative relationships graphically, and interpret the meaning of a specific part of the graph as it relates to the situation represented by the graph*



## Equations and Functions

*Solve problems, including work problems, involving linear equations and inequalities in one unknown, and interpret the solutions*

*Solve a system of two or more linear equations in two unknowns*

*Solve quadratic equations*

*Solve problems that include nonlinear functions and/or that involve more than one unknown*

*Evaluate functions for given domains*

*Find the domain and range of functions*

*Use trigonometric functions to model periodic phenomena*

*Recognize and generate equivalent forms for linear equations, including transforming linear equations into standard and slope-intercept form*

*Use the definition of function*  
- distinguish between graphs that depict functions and those that do not

*Fit model parameters; choose the best model from several choices*

