

## SAT Math Syllabus

## Algebra:

- Graphical representation of linear functions
- Linear equations featuring rational coefficients
- Linear inequalities in two variables and their systems
- Systems of linear equations (with no solution, infinite, or finite solutions)

Data Analysis & Problem-Solving:

- Percentages
- Ratio and Proportion
- Unit conversion
- Equations for lines or curves using scatterplots
- Two-way tables for calculating conditional frequencies and conditional probabilities
- Association of variables or independence of events
- Estimation of population parameters
- Calculation of mean, median, mode, range, and standard deviation in statistics
- Evaluation of reports to assess the appropriateness of data collection methods

## Advanced Math:

- Quadratic equations with rational coefficients
- Determining the form of an expression
- Polynomial equations (subtraction, multiplication, addition, and division)
- Zeros and factors of polynomials
- Non-linear relationships between two variables
- Function notation
- Isolation of a variable through rearrangement of formulas or equations

## Number and Operations:

- Operations
- Ratio and Proportion
- Complex Numbers
- Counting
- Elementary Number Theory
- Matrices
- Sequences
- Series
- Vectors

Algebra and Functions:

- Expressions
- Equations
- Inequalities
- Representation and modeling

- Properties of functions (linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse trigonometric, periodic, piecewise, recursive, parametric)

Geometry and Measurement:

Coordinate:

- Lines
- Parabolas
- Circles
- Ellipses
- Hyperbolas
- Symmetry
- Transformations
- Polar coordinates

Three-dimensional:

- Solids

- Surface area and volume (cylinders, cones, pyramids, spheres, prisms), coordinates in three dimensions

Trigonometry:

- Right triangles
- Identities

- Radian measure
- Law of cosines
- Law of sines
- Equations
- Double angle formulas

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