Portrait of an Abington Heights Mathematician

By the end of Calculus, students will:

Limits and Continuity	Derivatives	Applications of Derivatives	Analyzing Functions	Integrals
☐ Estimate limits from graphs and tables ☐ Evaluate limits by algebraic manipulation ☐ Analyze graphs to determine one-sided limits	☐ Determine the derivative of a function using the limit of the difference quotient ☐ Find derivatives of functions using the product, quotient, power, and/or chain rules ☐ Evaluate the derivatives of trigonometric, exponential, and logarithmic functions ☐ Determine a higher order derivative for a given function ☐ Apply the process of implicit differentiation	☐ Use derivatives to solve related rates problems ☐ Use calculus-methods to determine optimal values ☐ Solve real-life optimization problems	☐ Use derivatives to sketch a curve by obtaining critical values of a function, classifying as relative or absolute minima/maxima, identifying inflection points, and analyzing function to determine increasing and decreasing intervals	☐ Integrate polynomials, trigonometric, exponential, and logarithmic functions ☐ Investigate properties of indefinite and definite integration ☐ Integrate with U-substitution