

CONCEPT Standard four function calculators are ok for day-to-day operations, but what about when you need to graph linear equations, start solving complicated engineering or financial formulas? This is when you need a robust scientific calculator!

BACKGROUND

The scientific calculator is a type of electronic calculator designed to perform advanced math calculations, including trigonometry, logarithms and exponentiation. The first scientific calculator was developed in the late 1960s by Hewlett-Packard (HP). The HP-35 was the first pocket calculator that could perform trigonometric and exponential functions. At a cost of just under \$400, it quickly became popular with scientists and engineers. In the 1970s and 1980s, other companies, such as Texas Instruments and Casio, began to produce their own scientific calculators.

Scientific calculators have now become smaller, cheaper and more powerful. They are now widely used in schools, universities and other educational settings around the world. Many scientific calculators can now perform complex calculations with just a few keystrokes, and they are an essential tool for students and professionals in a variety of fields.



EXAMPLES

LINEAR EQUATIONS: $y = mx + b$, where m is the slope of the line and b is the y-intercept.

QUADRATIC EQUATIONS: $y = ax^2 + bx + c$, where a , b , and c are constants.

EXPONENTIAL FUNCTIONS: $y = abx$, where a and b are constants.

TRIGONOMETRIC FUNCTIONS: $\sin(x)$, $\cos(x)$, $\tan(x)$, $\cot(x)$, $\sec(x)$, $\csc(x)$.

LOGARITHMIC FUNCTIONS: $\log(x)$, $\ln(x)$, $\log_{10}(x)$, where x is the value being evaluated.

STATISTICAL FUNCTIONS: mean, median, mode, standard deviation, correlation coefficient, regression analysis.

CALCULUS FUNCTIONS: derivatives, integrals, limits, and series expansions.