

Minimum calculator requirements for Diploma Programme mathematics courses:

Subjects	Calculators
Mathematics: analysis and approaches and Mathematics: applications and interpretation	<p>Calculators are not allowed for <i>Mathematics: analysis and approaches</i> paper 1.</p> <p>On <i>Mathematics: analysis and approaches</i> paper 2 and paper 3 and <i>Mathematics: applications and interpretation</i> paper 1, paper 2 and paper 3, a GDC with the following minimum functionalities is required:</p> <ul style="list-style-type: none"> • plot graphs with any viewing window and identify key features • solve equations, graphically and numerically (real and complex solutions) • solve systems of equations, graphically and numerically (real and complex solutions) • find a numerical derivative at a point • find a numerical definite integral • financial (TVM) solver • add and multiply matrices, find determinant and inverse matrices • convert between Cartesian and modulus-argument (polar) form • operations with complex numbers • probability distribution functionality: <ul style="list-style-type: none"> - normal distribution - binomial distribution - Poisson distribution - t-distribution - confidence intervals (for normal and t-distributions) • find statistical values including: <ul style="list-style-type: none"> - binomial coefficient ${}^n C_r$, ${}^n P_r$ - 1 and 2 variable statistical values - Pearson's product-moment correlation coefficient and coefficient of determination - regression equations (linear, quadratic, cubic, exponential, power and sinusoidal) - χ^2 test for independence (χ^2 values and p values) - χ^2 goodness of fit test (χ^2 values and p values), varying the degree of freedom - t-test (t values and p values) • spreadsheets or recursion tools to find approximate solutions using Euler's method • plot phase portraits for two numeric sequences

Different IB DP courses have different topics, but the minimum requirements listed above are for all the mathematics courses collectively. Some of these may not be relevant to every course (for example, χ^2 functionality is not required for Mathematics: analysis and approaches). This document should be read in conjunction with the relevant subject guide.

Statistical tables are not allowed in mathematics subject examinations. Candidates must have access to calculators that are able to find relevant statistical values.

Examiners will set questions assuming that all candidates have a graphic display calculator (GDC) with the minimum functionalities listed here. Candidates using only four-function or scientific calculators, or using a less able GDC, will be at a disadvantage.