



Mathematics' Syllabus for the I.B. Entrance Test

- Real Numbers
 - ✓ Operations
 - ✓ Powers
 - ✓ Absolute Value
 - ✓ Square Root
 - ✓ Identities
 - ✓ Factorization

- Set Theory

- Equations
 - ✓ First Order Linear Equations
 - ✓ Second Order Equations, Discriminant, number of solutions, Sum and Product of roots.
 - ✓ Rational Equations

- Inequalities
 - ✓ First Order Linear Inequalities
 - ✓ Second Order Inequalities, Sign of the Quadratic Expression $ax^2 + bx + c, a \neq 0$.

- Systems of First Order Linear Equations

- Trigonometry (of an angle " ω ": $0^\circ \leq \omega \leq 90^\circ$)
 - ✓ Sine, cosine, tangent of an angle

- Plane Surfaces
 - ✓ Pythagorean Theorem (and its Inverse)
 - ✓ Area and perimeter of a shape.

- Coordinates of a point on the plane

- The straight line ($y = ax + b$)