## SCHOOLNOVA PREREQUISITES FOR MATH 8-10

## MATH 8: PREREQUISITES

- Combinatorics. Permutations and combinations. Pascal triangle.
- Quadratic equation and quadratic inequalities.
- Coordinate plane. Equation of the line. Distance between points.

## MATH 9: PREREQUISITES

- Binomial formula and Pascal triangle.
- Divisibility, Euclid's algorithm, arithmetic of remainders, congruences. Fundamental theorem of arithmetic
- Euclidean geometry. First postulates, congruence tests for triangles, alternate interior angle theorem, properties of special quadrilaterals, similar triangles, Thales theorem, inscribed angles.

## MATH 10: PREREQUISITES

- Functions and graphs. Even, odd, periodic, monotonic functions. Graphs of basic functions (power function, roots, sin, cos,) and their transformations.
- Polynomials; division of polynomials. Vieta formulas
- Complex numbers
- Mathematical induction