INTRODUCTION TO ARITHMETICS

Arithmetic or arithmetics (from the Greek word arithmos, meaning 'number') is the oldest and most elementary branch of mathematics. It consists of the study of numbers, especially the properties, the traditional operations between them—addition, subtraction, multiplication and division.

Mathematics is a language, in fact a very practical language. So many symbols are used in mathematics. Some of these symbols are numbers while the others are operators like +, −, ×, ÷, etc.

For one to be very good in mathematics, that person ought to understand mathematical symbols. The present numeric symbols use in mathematics are Hindi-Arabic and these are just ten digits in this system—0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. They are used in counting. Also they are being counted in base of 10 and that is why when it gets to 9, the next number is a combination of two digits, 1 and 0, then the 0 counts up until 9 and then the 1 changes to 2, just like that to infinity.

There are several operational symbols in mathematics, but within the boundaries of arithmetics, there are +, −, ×, ÷, %, :, ( ), >, <, =, etc.

- Plus or sum (+) is used to represent addition
- Minus or subtraction sign (−) is used to represent subtraction
- Divide by (÷ or /) represents sharing or division
- Times (×) represents multiplication or duplication
- Percentage (%) gives the value of a number as it relates to 100
- Ratio sign (:) represents relationship of quantities
- Approximate to (≃) represents a rounded off value
- Bracket ( ) is used to group similar mathematical operation
- Proportional to (∝) represents a relationship wherein there is a constant
- Equals to (=) continues procedures up to answer
- Greater than (>), Less than (<), Greater than or equals to (≥), Less than or equal to (≤) are comparison operational symbol.

- Equivalent to (≡) is used to imply variables of same value but different type. For example, a= ½ and b = 2/4; a ≡ b.