

CHAPTER-18

FUNDAMENTAL CONCEPTS

STUDY NOTE

- Algebra: Algebra is a generalized form of Arithmetic.
- In Arithmetic, we use numbers, such as: 3, 8, 0.63, etc., each of which has one definite value; whereas in Algebra, we use letters along with numbers.
- For Example: $5x$, $3x + 4$, $7a + b$, $3y + 5x$, $x + 3y + 9z$, etc.
- The letters used in Algebra are called variables or literal numbers or simply literals. Signs and Symbols.
- In Algebra, the signs $+$, meaning as in Arithmetic. Following sign and symbols are $-$, \times and \div are used with the same frequently used in algebra and have the same meanings as they have in any other branch of Mathematics. $=$ means, "is equal to" \neq means, "is not equal to" $<$ means, "is less than" $>$ means, "is greater than".
- \therefore means, "therefore"
- If two given numbers are divisible by a number, then their sum is also divisible by that number. Example: 16 and 20 are divisible by 4. $16 + 20 = 36$ is also divisible by 4.
- If two given numbers are divisible by a number, then their difference is also divisible by that number.

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