



## Class 6

### Important Formulas

### Chapter 1 – Knowing Our Numbers

- 1) Counting numbers 1, 2, 3, 4, 5, 6, ... etc. are known as natural numbers.
- 2) 1 is the smallest natural number.
- 3) 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 are called digits and a group of digits denoting a number is called a numeral or a number.
- 4) The method of representing a number in digits or figures is called notation and the method of expressing a number in words is called numeration. There are two methods of numeration:
  - (i) Indian system of numeration
  - (ii) International system of numeration.
- 5) Place value of a digit in a number = Its face value  $\times$  Position value
- 6) 1 million = 10 lakhs  
10 million = 1 crore  
100 million = 10 crores  
1 billion = 100 crores or 1 Arab.
- 7) 1 km = 1000 meter (m)  
1 meter = 100 centimetre (cm)  
1 cm = 10 millimetre (mm)  
1 kilogram (kg) = 1000 grams (gm)  
1 litre = 1000 millilitres (ml)
- 8) In order to estimate or round off a number to the nearest —
  - (a) tens:
    - (i) replace the ones digit by 0 and keep other digits as they are, if the digit at ones place is less than 5.
    - (ii) increase tens digit by 1 and replace the ones digit by 0, if the digit at ones place is greater than or equal to 5.
  - (b) hundreds:
    - (i) replace each one of the digits at tens and ones place by 0 and keep all other digits as they are, if the digit at tens place is less than 5.
    - (ii) increase the digit at hundreds place by 1 and replace each one of the digits at tens and ones place by 0, if the digit at tens place is greater than or equal to 5.
  - (c) thousands:

- (i) replace each one of the digits at hundreds, tens and ones place by 0 and keep all other digits as they are, if the digit at hundreds place is less than 5.
- (ii) increase the digit at thousands place by 1 and replace each one of the digits at hundreds, tens and ones place by 0, if the digit at hundreds place is greater than or equal to 5.

9) The roman numerals with the corresponding Hindu – Arabic numerals are:

*I V X L C D K*

1 5 10 50 100 500 1000

10) To get the values of given roman numerals, we use the following rules:

- (a) If a symbol is repeated, its value is added as many times as it occurs.
- (b) If a symbol of smaller value is written to the right of a symbol of greater value, we add its value to the value of greater symbol.
- (c) If a symbol of smaller value is written to the left of a symbol of greater value, its value is subtracted from the value of the greater symbol.
- (d) The symbols V, L and D are never written to the left of a symbol of greater value.
- (e) If a smaller numeral is placed between two larger numerals, it is always subtracted from the larger numeral immediately following it.
- (f) If a bar is placed over a numeral, it is multiplied by 1000.