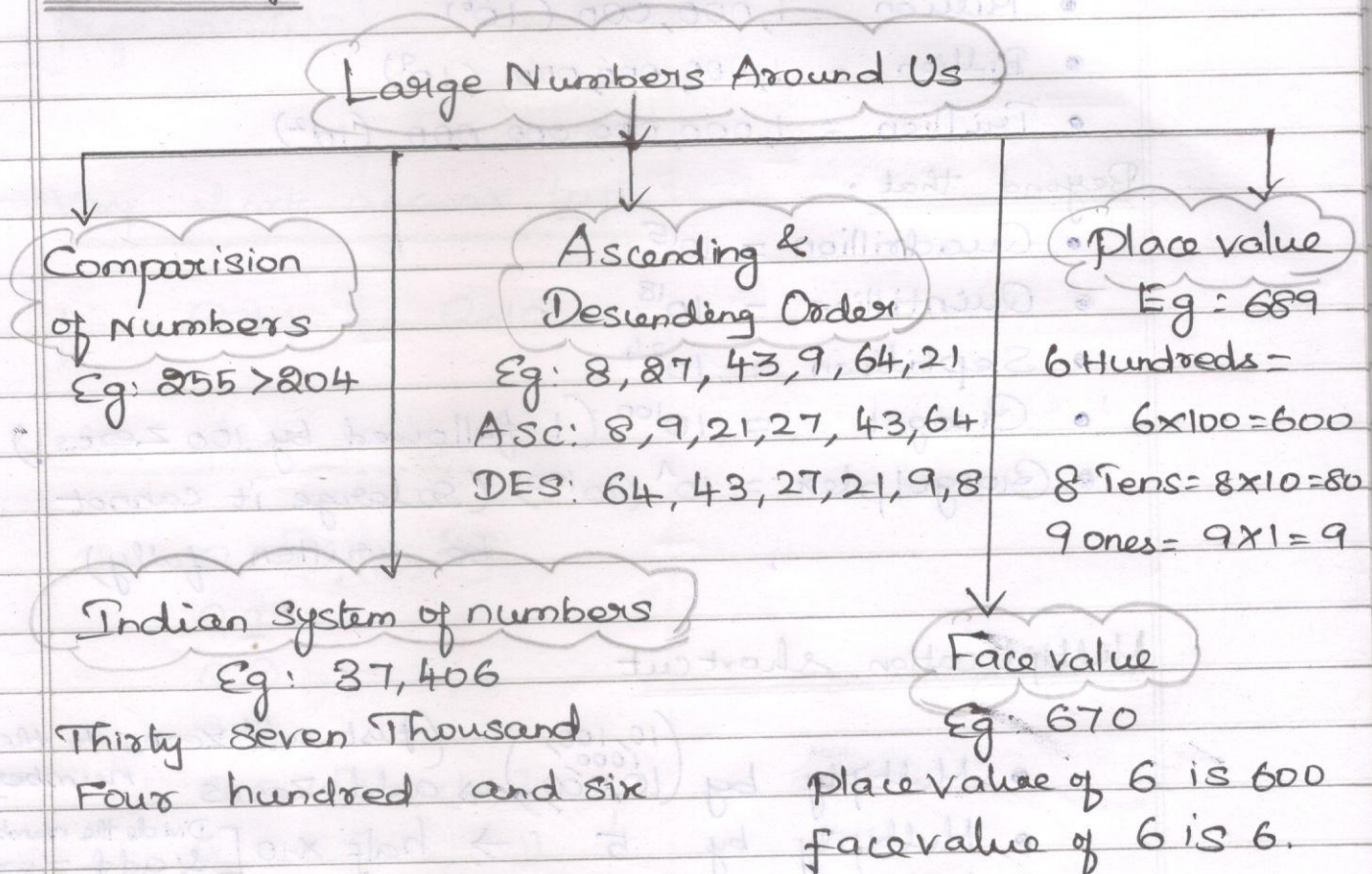


CHAPTER-I - Large Numbers Around Us

Mind map:



Some Important Fact:

1 hundred = 10 tens

1 Thousand = 10 hundreds

1 Lakh = 100 thousands

1 Crore = 100 Lakh

10 Lakhs = 1 Million.

100 Crore = 1 Billion

100000 Crore = 1 Trillion.

Name of Large Numbers

- Thousand = 1000 (10^3)
- Million = 1,000,000 (10^6)
- Billion = 1,000,000,000 (10^9)
- Trillion = 1,000,000,000,000 (10^{12})

Beyond that:

- Quadrillion = 10^{15}
- Quintillion = 10^{18}
- Septillion = 10^{24}
- Googol = 10^{100} (1 followed by 100 zeros!)
- Googolplex = $10^{10^{100}}$ (so large it cannot be written fully)

Multiplication short cut

- Multiply by $\begin{pmatrix} 10,000 \\ 1,000 \\ 10,000 \end{pmatrix}$ → add zeros (just add zeros to the number)
- Multiply by 5 → half $\times 10$ [Divide the number by 2 & add zero]
- Multiply by 9 → $\times 10$ - number [Multiply by 10 & subtract the number]
- Multiply by 11 → insert digit sum in the middle
- Multiply by 25 → Divide by 4 & multiply by 100
- Multiplying numbers ending in 5 → Multiply the digit(s) before 5 by its next number. Write 25 at the end.
- Cross multiplication Trick (Vedic style)

Eg 23×14

Step 1: Multiply units → $3 \times 4 = 12$ (write 2, carry 1)

Step 2: Cross multiply & add → $(2 \times 4) + (3 \times 1)$
= 11, plus carry 1

Step 3: Multiply tens = $2 \times 1 = 2$, plus carry 1
= 3

Ans $23 \times 14 = 322$

(Page no: 1.13)

NCERT FOLDER

Very short answer type:- 5, 2, 3, 8, 2, 1:0

from Q.1 to Q.10

Short Answer type:- 5, 2, 3, 4 : 8

Q.1 [(i), (iii), iv]

Q.2

Q.3

Q.4

Q.5 [(i), (ii)]

Q.6 [(iii), (v)]

Q.7 [(i)]

(Page no: 1.14)

Q.8 [a]

Q.9 [(ii)]

Q.10 [(iii), (iv)]

Long Answer type:-

Q.1 [(i)]

Q.2

Q.3

Q.5

Problems To Be Completed In Classwork:

Page No: 1.11

Performers (Class Activity)

Q: 1, 2, 3, 5, 6, 7

Achievers (Class Activity) [Page No: 1.12]

Q: 4, 5, 6, 7.