



CLASS VI
MATHEMATICS
CHAPTER 1: KNOWING OUR NUMBERS

NOTES

Introduction:

We can count objects in large numbers and represent them through numerals. We use numbers and they help us count concrete objects. We can add, subtract, multiply and divide by using numbers.

Comparing Numbers

Smallest and Greatest number

E.g. Among the numbers

(i). 1902, 1920, 9201, 9021, 9210

Smallest - 1902

Greatest - 9210

(ii). 9201 and 9021

Greatest - 9201

Smallest - 9021

How to make different numbers using digits without repeating

E.g. Using 7,8,3,5 we can make different numbers like 3578, 8735, 5387, 7853 etc.

Make the smallest and greatest 4- digit numbers using 2, 8, 7, 4

Greatest - 8742

Smallest - 2478

Arranging numbers in ascending order – (smallest to greatest)

Arrange the numbers in ascending order

2635, 1897, 2857, 1788, 3975

Ans : 1788, 1897, 2635, 2857, 3975

Arranging numbers in descending order – (greatest to smallest)



Arrange the numbers in descending order

2635, 1897, 2857, 1788, 3975

Ans: 3975, 2857, 2635, 1897, 1788

Shifting digits:

By shifting digits in a number, the number becomes smaller or greater.

Example, let's take a number 795.

By shifting the digit 7 and 5 we can form a number 597, and by shifting 9 and 5, we can form 759.

Introducing 10,000

Greatest 2 digit number – 99

What comes after 99? – 100

Greatest 3 digit number – 999

What comes after 999? – 1000

What comes after 9999? (the greatest 4 digit number)

Ans: 10,000 (ten thousand)

Greatest 4-digit number + 1 = smallest 5-digit number.

PLACE VALUE:

Expansion of a 2-digit number

E.g. $79 = 70 + 9$

$$= 7 \times 10 + 9$$

Similarly expansion of a 3 -digit number e.g. 728

$$728 = 700 + 20 + 8$$

$$= 7 \times 100 + 2 \times 10 + 8$$

Here, we say 8 is at ones place, 2 is at tens place, 7 is at hundreds place.

Expansion of 5-digit number e.g. 45278

Here, 8 is at ones place

7 is at tens place



2 is at hundreds place

5 is at thousands place

4 is at ten thousands place.

Therefore $45278 = 40000 + 5000 + 200 + 70 + 8$

$$= 4 \times 10000 + 5 \times 1000 + 2 \times 100 + 7 \times 10 + 8 \times 1$$

INTRODUCING: 1,00,000 (1 lakh)

1 lakh is a six digit number

What is the greatest 5-digit number?

Ans: 99999

By adding 1 to 99999 (greatest 5-digit number) we get smallest 6-digit number.

$$99,999 + 1 = 1,00,000$$

Now we can write 6 -digit number 28369 in the expanded form as

$$5 \times 100000 + 2 \times 10000 + 8 \times 1000 + 3 \times 100 + 6 \times 10 + 9 \times 1$$

READING NUMBERS:

e.g.- 9847215

Ten lakh place	One lakh place	Ten thousand place	Thousand place	Hundreds place	Tens place	Ones place
9	8	4	7	2	1	5

$$9 \times 10,00,000 + 8 \times 1,00,000 + 4 \times 10,000 + 7 \times 1000 + 2 \times 100 + 1 \times 10 + 5 \times 1$$

Ninety eight lakhs forty seven thousand two hundred and fifteen.

1000 = thousand

10,000 = ten thousand

100,000 = hundred thousand

500,000 = 5 hundred thousand

1000, 000 = thousand thousand = 1 million