

**DELHI PUBLIC SCHOOL, JAMMU**

**FOUNDATION WORKSHEET**

**SESSION: - 2021-2022**

CLASS :-VI

**TOPIC:- KNOWING OUR NUMBERS**

**SUBJECT:- MATHS**

**Introduction:** - Students will learn about the following sub-topics-

**1. DIGITS AND NUMERALS**

**2. NUMERATION WITH THEIR TYPES**

**3. CONCEPT OF PLACE VALUE AND FACE VALUE OF A DIGIT**

**4. EXPANDED FORM & SHORT FORM OF NUMBERS**

**EXPLANATION:-** To start this chapter firstly we know about natural and whole numbers.

**NATURAL NUMBERS** :- When we begin to count the numbers 1,2,3,4.....comes naturally. Hence, they are called natural numbers or counting numbers. The first and smallest natural number is 1.

There is no largest natural number.

**WHOLE NUMBERS**:- The numbers “0” together with natural numbers are called whole numbers.

0,1,2,3,.... are whole numbers.

The smallest whole number is “0” and there is no largest whole number.

**DIGITS**:- In order to represent any number, we use ten symbols 0,1,2,3,.... 8 & 9. These ten symbols are called digits.

**NUMERALS**:- A group of digits denoting a number is called a numeral. For example:-2345, 67859 etc. are numerals.

**NUMERATION**:- Expressing a numbers in words is called numeration. For example:-we read 4563 as four thousand five hundred sixtythree.

There are two systems of reading and writing numbers- **(1) Indian system of numeration**

**(2) International system of numeration**

We use commas for separating the periods, which helps us in reading and writing large numbers.

*In the Indian system of numeration, the first three places from right make ones period, next two places make thousands period and two places make lakhs and so on.*

Periods	...	Arabs		Crores		Lakhs		Thousands		Ones or units		
		TA	A	TC	C	TL	L	TTH	TH	H	T	O
Places		Ten Arabs	Arabs	Ten Crores	Crores	Ten lakhs	Lakhs	Ten thousands	Thousands	Hundred	Tens	Units or Ones
Values		10,00,00,00,000	1,00,00,00,000	10,00,00,000	1,00,00,000	10,00,000	1,00,000	10,000	1000	100	10	1

*In the International system of numeration, the first three places from the right make ones period, next three places make thousands period and then three places make millions period and so on.*

Periods	...	Billions			Millions			Thousands			Ones or units		
Places		Hundred Billions	Ten billions	Billions	Hundred Millions	Ten Millions	Millions	Hundred Thousand	Ten Thousands	Thousands	Hundred	Tens	Units or Ones
Values		100,000,000,000	10,000,000,000	1,000,000,000	100,000,000	10,000,000	1,000,000	100,000	10,000	1000	100	10	1

**Forexample:-** Insert commas according to Indian and International system of numeration and write in words also. (a) 34567832 (b) 923451076

**Solution:-** (a) According to Indian system - 3,45,67,832 - **Three Crore forty five lakh sixty seven thousand eight hundred thirty two.**

According to international system - 34,567,832 - **Thirty four million five hundred sixty seven thousand eight hundred thirty two.**

(b) **Indian system:-** 92,34,51,076 - **Ninety two crore thirty four lakh fifty one thousand seventy six.**

**International system:-** 92,345,1076 - **Nine hundred twenty three million four hundred fifty one thousand seventy six.**

### **PLACE AND FACE VALUE OF NUMBER**

The place value of a digit in a number is the digit multiplied by its respective places. The face value of a digit in a number is the actual value of the digit.

TTH	TH	H	T	O
5	6	7	4	2

**Forexample:-**

NUMBER	FACE VALUE	PLACE VALUE
5	5	$5 \times 10000 = 50000$
6	6	$6 \times 1000 = 6000$
7	7	$7 \times 100 = 700$
4	4	$4 \times 10 = 40$
2	2	$2 \times 1 = 2$

**EXPANDED FORM:-** When we write a number in expanded form, We write the value of each digit based on its place value position. We write the number this way to help us show how much each digit is worth in the whole number. Here is the example of 23,456 in expanded form:-

$$2 \times 10000 + 3 \times 1000 + 4 \times 100 + 5 \times 10 + 6 \times 1 = 20,000 + 3,000 + 400 + 50 + 6.$$

One thing that we need to be careful is when a number has a zero in it. If you have a number like 548,029 you do not need to write + 0 in that spot. Just keep writing other places. 548,029 would look like this;  
 $500,000 + 40,000 + 8,000 + 20 + 9.$

When we have to write number in standard form from expanded form, a good tip to remember is to count the number of places in the largest number. Doing this will tell us how many digits should be there in the number when it is written in standard (number) form.

If we have to write  $60,000 + 5,000 + 400 + 70 + 1$  in standard form, we know there need to be 5 digits in our numbers. So,

$$60,000 + 5,000 + 400 + 70 + 1 = 65,471$$

## **PRACTICE SHEET**

**Q1.** Identify the place value of 4 in 2549138.

- a) 4000      b) 4      c) 40000      d) 4000

**Q2.** Which of the following is the greatest number?

- a) 9049008      b) 9049080      c) 9049800      d) 9040908

**Q3.** The whole number which is not a natural number is

- a) 0      b) 1      c) 9      d) 2

**Q4.** Fifty crore nine hundred and three is \_\_\_\_\_.

**Q5.** The successor of 39,999 is \_\_\_\_\_.

**Q6.** The smallest 3-digit number with distinct digits is \_\_\_\_\_.

**Q7.** Insert commas suitably and write the number names of

- a) 77000770 in International System.  
b) 525054000 in Indian System.

**Q8.** Write the following numbers in words:

- a) 6,52,01,27,562      b) 32,604,509

**Q9.** Write each of the following in the numeral forms:

- a) Five hundred sixty five thousand three.  
b) Thirty million six hundred seven thousand four hundred eight.

**Q10.** Find the difference of smallest 3-digit number and the largest 2-digit number.

**Q11.** Identify the place value and face value of underlined digits in the given numbers.

- a) 2549138      b) 83471936

**Q12.** Find the sum of the place value and face value of 6 in the number 53649.

**Q13.** Write the following numbers in expanded form.      a) 245387      b) 1509764

**Q14.** Write the number corresponding to each of the following:

a)  $7000 + 500 + 60 + 9$

b)  $900000 + 60000 + 100 + 1$

c)  $20000000 + 200 + 70$

**Q15.** Write the smallest 7-digit number having four different digits.

**Q16.** Write the greatest number and the smallest of four digits that can be formed by the digits 7, 2, 5 and 1 using each digit once.

**Q17.** Find the product of the place values if two 5's in 605735.

**Q18.** Write all possible 3-digit numbers that can be formed by using 8, 5 and 0, if the repetition of digits is allowed. **Q19.** Make the greatest and the smallest 5-digit numbers by using any five digits such that

a) Digit 9 is always at thousands place.

b) Also find the difference between the two numbers so obtained.

**Q20.** The population of a town was 150800. In one year it increased by 4290 due to new births. In the increased population if the number of men is 62567 and that of women is 61296, determine the number of children.

**Q21.** From 987632 subtract the largest 5-digit even number. Add the result to the smallest 4-digit odd number.

**Q22.** A man had ₹ 5,56,38,579. He gave ₹ 2,89,36,555 to his wife and ₹ 1,04,21,791 to his daughter and the rest to his son. How much money was received by the son?

**Q23.** A student multiplied 5842 by 53 instead of 35. How much was his answer greater than the correct answer?

**Q24.** Subtract the product of 6353 and 30 from the greatest number formed by the digits 0, 1, 2, 3, 4, 5.

**Q25.** A merchant had ₹ 98500 with him. He placed an order for purchasing 50 ceiling fans at ₹1500 each. How much money will remain with him after the purchase?