Contents

1 Revision

Learning Objectives

At the end of this lesson, students will be able to:

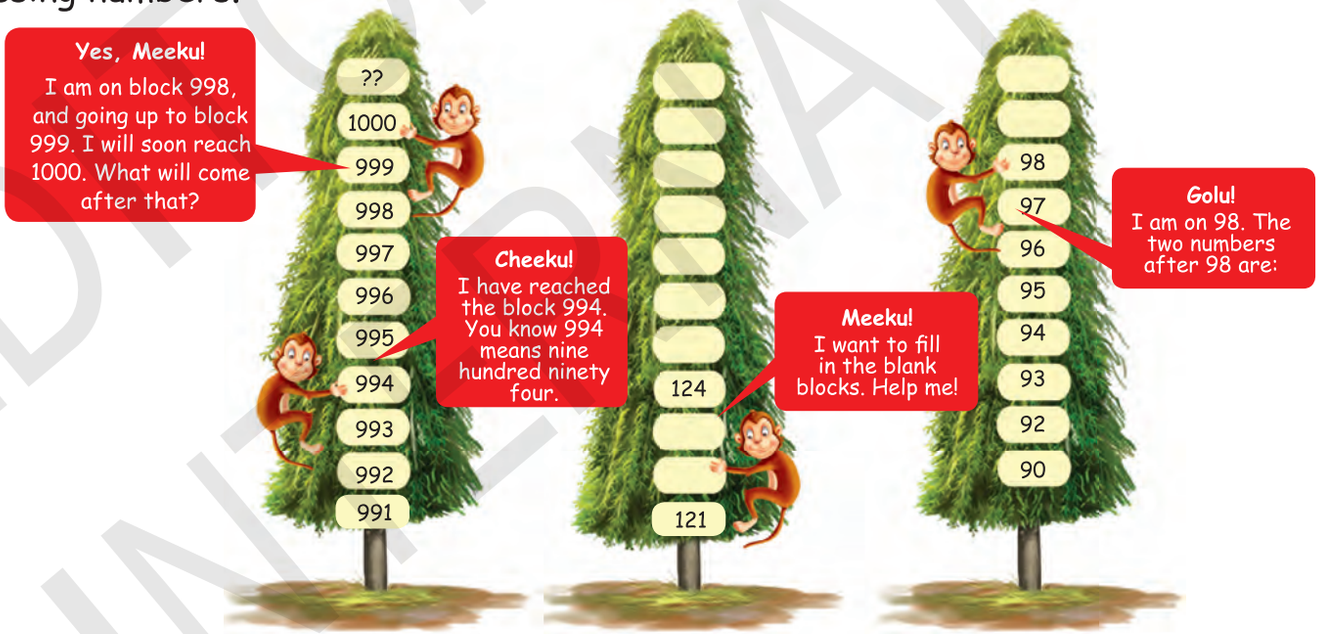
- Revise the place value upto hundreds.
- Arrange the numbers in ascending and descending order.
- Sort out even and odd numbers.
- Write multiplication and division facts.

Warm-Up

Let's revise

We have learnt to read and write 1 digit , 2 digit and 3 digit numbers using the digits 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9.

Cheeku and his friend Peeku are climbing on a palm tree with numbered blocks on each step. Meeku and Golu are also climbing trees, but different ones. Fill in the missing numbers.



Teacher's Note:

Elucidate the students that the largest three-digit number is 999. If you add 1 to this number, it becomes 1000, which is a four-digit number. So, 999 is the largest three digit number in the number system.

Let's Revise

Ones	Tens	Hundreds
5, 2, 4, 6, 8	10, 73, 82, 61, 95	226, 329, 782, 645, 985

	Hundreds	Tens	Ones
One-Digit Numbers (0 to 9)			1
Two-Digit Numbers (10 to 99)		1	0
Three-Digit Numbers (100 to 999)	1	0	0

Facts to Know

Only three cultures invented a place value numeration system: The Mayans, The Babylonians and The Hindu people of India.

exercise 1.1

1. Write the number names for the following numerals:

(a) 125 ..... (b) 642 .....

(c) 721 ..... (d) 900 .....

2. **Write the following number names in figures:**

(a) Six hundred thirty two .....

(b) Seven hundred .....

(c) Two hundred one .....

(d) Three hundred forty .....

3. **Write the following numbers in ascending order:**

(a) 95, 62, 25, 73, 91 .....

(b) 986, 429, 536, 418, 721 .....

(c) 526, 321, 400, 308, 222 .....

(d) 986, 50, 146, 221, 700 .....

4. **Write the following numbers in descending order:**

(a) 532, 221, 645, 386, 118 .....

(b) 600, 400, 200, 900, 500 .....

(c) 444, 625, 155, 555, 71 .....

(d) 226, 431, 536, 429, 300 .....

5. **Fill in the boxes with the correct symbol <, > or =**

(a) 33 ☐ 21 (b) 46 ☐ 29

(c) 130 ☐ 160 (d) 108 ☐ 108

(e) 721 ☐ 482 (f) 245 ☐ 564

6. **Sort out the following as even numbers and odd numbers:**

20, 23, 44, 65, 49, 82, 136, 18, 7, 33, 58, 83, 27, 42, 102, 111

(a) Even Numbers .....

(b) Odd Numbers .....

Quick Tip

Ascending order:
If all the numbers have an equal number of digits, then the numbers whose first digit is greater will be a higher number.

7. **Write the following numerals in expanded form:**

(a) 329 = ... + ... + ...

(b) 621 = ... + ... + ...

(c) 518 = ... + ... + ...

(d) 213 = ... + ... + ...

8. **Write the following in short form:**

(a) 800 + 80 + 2 = ...

(b) 700 + 20 +9 = ...

(c) 500 + 3 = ...

(d) 200 + 20 + 5 = ...

9. **Complete the following number patterns:**

(a) 73, 74, ..., ..., ..., 78, ..., ...,

(b) 330, 331 ....., ..., ..., 335, ..., ...,

(c) 226, 228, ..., ..., ..., 236 ....., ...,

(d) 100, 110, 120, ..., ..., ..., ..., 170,

10. **What comes AFTER in each of the following numerals?**

(a) 321 ..... (b) 436 .....

(c) 225 ..... (d) 581 .....

11. **What comes BEFORE in each of the following numerals?**

(a) ..... 325 (b) 436

(c) ..... 221 (d) 580

12. **What comes in BETWEEN in each of the following numerals?**

(a) 333 ..... 335 (b) 426 428

(c) 500 ..... 502 (d) 729 731

13. **Fill in the blanks:**

(a) 3 + 0 = ... (b) 5 + ... = 5

(c) 20 – ..... = 20 (d) 26 - 26 = ...

14. **Complete the following table:**

Numbers	One-Digit	Two-Digit	Three-Digit
Largest			
Smallest			

15. **Write the place value of the underlined digit in the following numerals:**

(a) 62<u>5</u> ..... (b) 42<u>1</u> .....

(c) <u>6</u>35 ..... (d) 4<u>5</u>0 .....

16. **Write the smallest 3-digit number formed by using the digits given below:**

(a) 5, 2, 9 ..... (b) 6, 0, 8 .....

(c) 1, 2, 3 ..... (d) 8, 4, 6 .....

17. **Write the largest 3-digit number formed by using the digits given below:**

(a) 5, 2, 6 ..... (b) 7, 2, 8 .....

(c) 5, 0, 9 ..... (d) 2, 0, 8 .....

18. **Add the following:**

(a)
$$\begin{array}{r} 43 \\ +\ 21 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 29 \\ +\ 65 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 36 \\ 42 \\ +\ 90 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 17 \\ 29 \\ +\ 83 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 336 \\ +\ 421 \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 829 \\ +\ 236 \\ \hline \end{array}$$

(g)
$$\begin{array}{r} 288 \\ 399 \\ +\ 108 \\ \hline \end{array}$$

(h)
$$\begin{array}{r} 130 \\ 249 \\ +\ 356 \\ \hline \end{array}$$

19. Subtract the following:

(a)
$$\begin{array}{r} 36 \\ -\ 29 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 42 \\ -\ 28 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 22 \\ -\ 19 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 936 \\ -\ 521 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 529 \\ -\ 422 \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 600 \\ -\ 542 \\ \hline \end{array}$$

20. Write the multiplication facts for the following:

(a) $3 \times 2 =$ ..... (b) $5 \times 8 =$ .....

(c) $7 \times 6 =$ ..... (d) $9 \times 8 =$ .....

21. Multiply the following:

(a)
$$\begin{array}{r} 30 \\ \times\ 6 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 24 \\ \times\ 2 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 14 \\ \times\ 1 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 23 \\ \times\ 5 \\ \hline \end{array}$$

22. Write two division facts for each of the following multiplication facts:

(a) $7 \times 5 = 35$ ....., ...

(b) $3 \times 6 = 18$ ....., ...

(c) $4 \times 10 = 40$ ....., ...

(d) $9 \times 9 = 81$ ....., ...

23. Answer the following questions:

(a) How many 5-paise coins make a rupee? .....

(b) How many 10-paise coins make a rupee? .....

(c) How many 20-paise coins make a rupee? .....

(d) How many 25-paise coins make a rupee? .....

(e) How many 50-paise coins make a rupee? .....

(f) How many ₹ 1 notes make ₹ 10? .....

(g) How many ₹ 5 notes make ₹ 10? .....

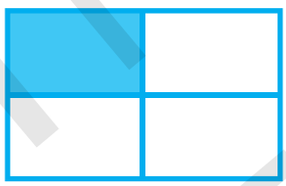
(h) How many ₹ 10 notes make ₹ 20? .....

(i) How many ₹ 50 notes make ₹ 100? .....

(j) How many ₹ 100 notes make ₹ 500? .....

(k) How many ₹ 500 notes make ₹ 1000? .....

24. Write the fraction as is represented in the following shaded figures:

(a) 

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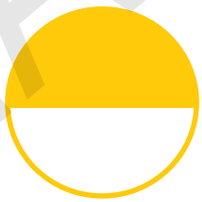
(b) 

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(c) 

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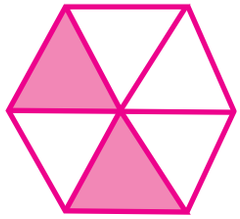
(d) 

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Think Wisely

Who am I ?

- If 100 is added to me, I am 936. _____
- If 1000 is subtracted from me, I am 333. _____
- I am the predecessor of the smallest 4 digit number. _____
- If I am added or subtracted from a number, the answer is the number itself. _____

Mental Maths

Solve mentally: call out the steps as you do

1. 6 + 17 = ...
2. 19 + 8 = ...
3. 9 + 15 = ...
4. 15 + 7 = ...
5. 4 + 17 = ...

Maths Lab Activity

Materials required: Flash cards of any 3 numbers from (0-9).

Steps:

1. Show the cards to the students.
2. Students need to make as many 3 digit numbers as possible with those numbers.
3. Students with maximum numbers will get the points.

2 Learning Numbers Upto 10000

Learning Objectives

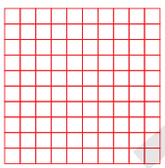
At the end of this lesson, students will be able to:

- Read and write the numbers upto 10000.
- Show the four-digit numbers on the abacus.
- Know about the successor and predecessor of a number.

Warm-Up

Let's revise

Count the boxes given below and write the number and the place value of its digit.



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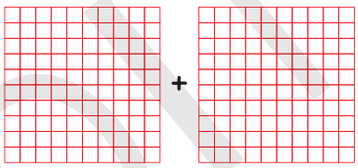
H	T	O



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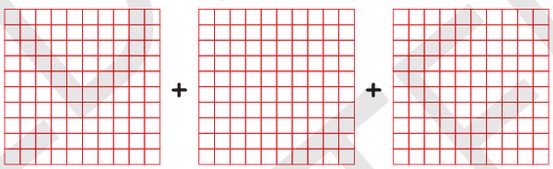
H	T	O



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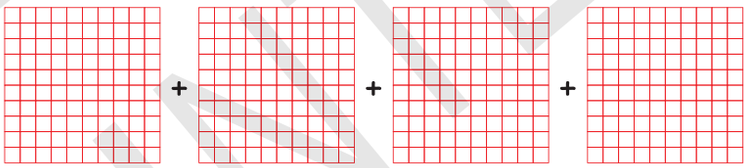
H	T	O



_____

H	T	O

Teacher's Note: Ask the students to write the number name of the final number that comes up.

Let's Revise:

	Smallest	Largest
One-Digit Number	1	9
Two-Digit Number	10	99
Three-Digit Number	100	999
Four-Digit Number	1000	9999

1000 is read as One Thousand

9999 is read as Nine Thousand Nine Hundred Ninety Nine.

Let's Learn Place Value:

Th	H	T	O

Th — Thousands H — Hundreds
T — Tens O — Ones

Numbers From 1001 to 10000

Numbers	Number Names
1001	One thousand one
1002	One thousand two
1003	One thousand three
1004	One thousand four
.....	.....
1010	One thousand ten
1011	One thousand eleven
.....	.....
1099	One thousand ninety-nine

1100	One thousand one hundred
1101	One thousand one hundred-one
.....	.....
1200	One thousand two hundred
.....	.....
1900	One thousand nine hundred
.....	.....
1999	One thousand nine hundred ninety-nine
2000	Two thousand
2001	Two thousand one
.....	.....
2999	Two thousand nine hundred ninety-nine
3000	Three thousand
.....	.....
9000	Nine thousand
.....	.....
9999	Nine thousand nine hundred ninety-nine
10000	Ten thousand

Facts to Know

10,000 is known as a Myriad in Ancient Greek.

Exercise 2.1

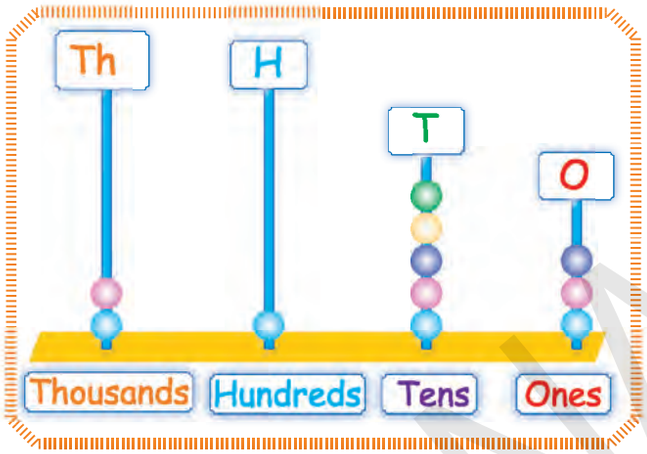
Complete the following number grids:

(a)	1054,				1057,		
(b)	1100,	1101,					
(c)	9762,				9765,		
(d)	8201,				8204,		

Learning Four-Digit Numbers On Abacus

Th- Thousands H - Hundreds

T - Tens O - Ones



Look at the abacus given above:

It shows the numeral: 2153

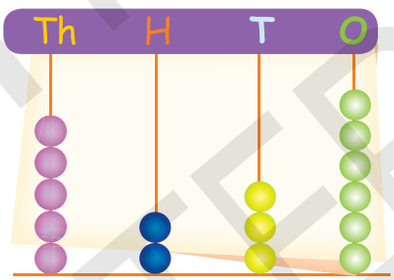
Th	H	T	O
2	1	5	3

Two thousand one hundred fifty-three.

exercise 2.2

1. Read the number on the abacus and write the number and number name:

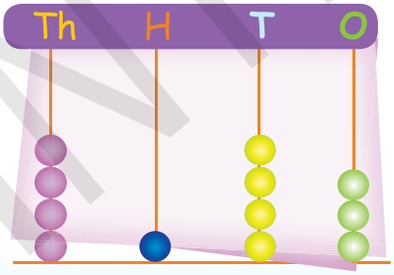
(a)



5 2 3 6

Five thousand two hundred thirty-six

(b)



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.....

2. Write the numeral for the following number names:

(a) Two thousand five hundred seventy.

(b) Three thousand two hundred sixty-two.

(c) One thousand three hundred fifty-three.

(d) Nine thousand six hundred twenty.

(e) Two thousand four hundred one.

(f) Eight thousand fifty-three.

Th	H	T	O
2	5	7	0

3. Write the number names for the following numerals:

(a) 4065 .....

(b) 3002 .....

(c) 2791 .....

(d) 7356 .....

(e) 8000 .....

(f) 2015 .....

Face Value of A Digit

Face value of a digit is the actual value of the digit in a number.

Solved Examples

Example 1 : Find the face value of each digit in the numeral 3429.

Solution : Face value of 9 is 9.

Face value of 2 is 2.

Face value of 4 is 4.

Face value of 3 is 3.

Example 2 : Find the face value of each digit in the numeral 2054.

Solution : Face value of 4 is 4.

Face value of 5 is 5.

Face value of 0 is 0.

Face value of 2 is 2.

Exercise 2.3

Write the face value of encircled digits:

(a) 1 4 5 (9) ..... .

(b) 6 (4) 2 1 ..... .

(c) 2 8 (5) 7 ..... .

(d) (1) 2 3 6 ..... .

(e) 7 5 (0) 3 ..... .

Place Value (or Local Value) Of A Digit

Place value (or local value) of a digit in a number depends upon the value according to the place of a digit in a number.

Solved Examples

Example 1 : Write the place value of each digit in the numeral 2456.

Solution :

Th	H	T	O
2	4	5	6

Place value of 6 = 6 ones = 6

Place value of 5 = 5 tens = 50

Place value of 4 = 4 hundreds = 400

Place value of 2 = 2 thousands = 2000

Example 2 : Write the place value of each digit in the numeral 7029.

Solution :

Th	H	T	O
7	0	2	9

Place value of 9 = 9 ones = 9

Place value of 2 = 2 tens = 20

Place value of 0 = 0 hundreds = 0

Place value of 7 = 7 thousands = 7000

exercise 2.4

Write the place value of encircled digits:

(a) 2 0 4 (5) ..... .

(b) 6 (9) 2 1 ..... .

(c) (6) 8 2 5 ..... .

(d) 5 4 (3) 1 ..... .

(e) 7 5 (0) 2 ..... .

Expansion Of Numbers

When a numeral is expressed as a sum of the place values of its digits, then it is said to be in expanded form.

Quick Tip

The place value of 0 is always 0.

Solved Example

Example 1 : Write the number 2856 in expanded form.

Solution :

Th	H	T	O
2	8	5	6

2856 = 2 thousands + 8 hundreds + 5 tens + 6 ones

2856 = 2000 + 800 + 50 + 6

Expanded form of 2856 is,

2000 + 800 + 50 + 6.

Also, the short form of 2000 + 800 + 50 + 6 is 2856.

Exercise 2.5

1. Write the expanded form of following numerals:

(a) 2859 = ... + ... + ... + ...

(b) 7628 = ... + ... + ... + ...

2. Write the short form of the following:

(a) 3000 + 50 + 6 = ...

(b) 8000 + 600 + 20 + 5 = ...

Think Wisely

1. How many odd numbers are there from 4000 to 5001?

_____

2. Write the greatest and smallest 3 digit numbers using the digits 9 , 8, 6, 8, or 0.

_____

Skip Counting

When we write some numbers with a fixed gap between two successive numbers, then such counting is known as skip counting.

Solved Examples

Example 1 : Counting by two's, write five numerals from 6052 onwards.

Solution : Starting from 6052, we add 2.

The required numerals are:

6052, 6054, 6056, 6058, 6060

Example 2 : Counting by five's, write five numerals from 3056 onwards.

Solution : Starting from 3056, we add 5.

The required numerals are:

3056, 3061, 3066, 3071, 3076

Example 3 : Counting by ten's, write five numerals from 4015 onwards.

Solution : Starting from 4015, we add 10.

The required numerals are:

4015, 4025, 4035, 4045, 4055

Example 4 : Counting by hundred's, write five numerals from 2056 onwards.

Solution : Starting from 2056, we add 100.

The required numerals are:

2056, 2156, 2256, 2356, 2456

exercise 2.6

1. Counting by two's, write the numerals from:

   (a) 3059, ...

   (b) 1022, ...

   (c) 2030, ...

   (d) 4056, ...

2. Counting by three's, write the numerals from:

   (a) 1023, ...

   (b) 7328, ...

   (c) 2059, ...

   (d) 2002, ...

3. Counting by five's, write the numerals from:

   (a) 556, ...

   (b) 1525, ...

   (c) 7621, ...

   (d) 2150, ...

4. Counting by twenties, write the numerals from:

   (a) 1030, ...

   (b) 5042, ...

   (c) 6721, ...

   (d) 5892, ...

5. Counting by fifties, write the numerals from:

(a) 1050, ...

(b) 2065, ...

(c) 3012, ...

(d) 1029, ...

Successor And Predecessor

The number just after the given number, is called its successor.

Add 1 to a given number to get its successor.

Subtract 1 from a given number to get its predecessor.

The number just before the given number, is called its predecessor.

Solved Examples

Example 1 : Write the successor of the following numerals:
(a) 329, (b) 462, (c) 1521, (d) 2497, (e) 8000

Solution : Add 1 to the given number,

(a) Successor of 329 = 329 + 1 = 330

(b) Successor of 462 = 462 + 1 = 463

(c) Successor of 1521 = 1521 + 1 = 1522

(d) Successor of 2497 = 2497 + 1 = 2498

(e) Successor of 8000 = 8000 + 1 = 8001

Example 2 : Write the predecessor of the following numerals:
(a) 421, (b) 645, (c) 1295, (d) 7321, (e) 7000

Solution : Subtract 1 to the given number:

(a) Predecessor of 421 = 421 – 1 = 420
(b) Predecessor of 645 = 645 – 1 = 644
(c) Predecessor of 1295 = 1295 – 1 = 1294
(d) Predecessor of 7321 = 7321 – 1 = 7320
(e) Predecessor of 7000 = 7000 – 1 = 6999

exercise 2.7

1. Write the successor of the following numerals:

(a) 7990 ..... (b) 4321 .....
(c) 5625 ..... (d) 1429 .....
(e) 8462 ..... (f) 7469 .....

2. Write the predecessor of the following numerals:

(a) 1435 ..... (b) 6425 ..... (c) 1421 .....
(d) 1008 ..... (e) 2098 ..... (f) 8962 .....

3. Complete the following table:

Predecessor	Numbers	Successor
.....	4165	.....
.....	2986	.....
.....	1453	.....
.....	2009	.....
.....	1081	.....

Comparison Of Numbers

We have already learnt the comparison of numbers upto 3-digits. Now follow the same rule for 4-digit numbers.

Comparing numbers having different number of digits:

Number with more digits is the greater number

1057	>	256
298	>	56
9	>	5

Comparing numbers having same number of digits:

Step 1 : To compare numbers, always begin with the left most digit (or place).
Step 2 : First compare thousands. If they are same, then compare hundreds.
Step 3 : If hundreds are same, then compare tens, and so on.

Solved Examples

Example 1 : Compare 2459 and 2457

Solution : Arrange the numbers in place value chart:

Th	H	T	O
2	4	5	9
2	4	5	7
↑ Same	↑ Same	↑ Same	↑ Different

At ones place,

9 > 7

So,

2459	>	2457

Exercise 2.8

1. Write the correct symbol (> or <) in the placeholders:

(a) 2059 ☐ 2561

(b) 129 ☐ 586

(c) 1029 ☐ 929

(d) 2110 ☐ 2119

(e) 2765 ☐ 2760

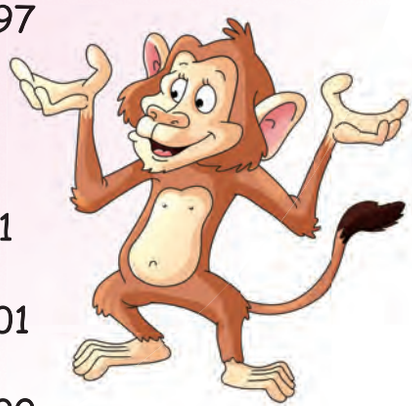
2. Encircle the smallest number:

(a) 236, 941, 535, 642, 156

(b) 1028, 5465, 2091, 9862, 2491

(c) 1200, 1201, 9262, 1001, 2962

(d) 1295, 1293, 1292, 1298, 1297



3. Encircle the largest number:

(a) 276, 142, 596, 172, 981

(b) 1296, 1275, 1283, 1200, 1201

(c) 9800, 9865, 9700, 9200, 1000

(d) 7654, 7601, 7691, 7650, 8800

4. Write the smallest and greatest 4-digit numbers, with the help of given digits:

S.No.	Digits	Smallest	Greatest
(a)	7, 2, 0, 9	2079	9720
(b)	5, 4, 3, 6		
(c)	6, 8, 1, 2		
(d)	7, 3, 6, 1		
(e)	5, 6, 2, 0		
(f)	2, 8, 9, 3		
(g)	4, 3, 2, 0		
(h)	7, 2, 9, 5		

Ordering Of Numbers

Ordering of numbers means 'to arrange the numbers in either ascending or descending order'

Ascending order means to arrange the numbers from the smallest to the greatest number.

Descending order means to arrange the numbers from the greatest to the smallest number.

Solved Examples

Example 1 : Arrange the following numbers in ascending order:

2496, 5421, 108, 2965, 980

Solution : Arrange these numbers in place value chart:

Th	H	T	O
2	4	9	6
5	4	2	1
	1	0	8
2	9	6	5
	9	8	0

Clearly,

108 < 980 < 2496 < 2965 < 5421.

So, ascending order of given numbers is:

108, 980, 2496, 2965, 5421.

Example 2 : Arrange the following numbers in descending order:

1095, 985, 4265, 129, 2892

Solution : Arrange these numbers in place value chart:

Th	H	T	O
1	0	9	5
	9	8	5
4	2	6	5
	1	2	9
2	8	9	2

Clearly,

4265 > 2892 > 1095 > 985 > 129

So, descending order of given numbers is:

4265, 2892, 1095, 985, 129.

Exercise 2.9

1. Arrange the following numbers in ascending order:

(a) 4265, 9341, 285, 962, 1298

(b) 1095, 9121, 4365, 129 784

(c) 9865, 7321, 865, 1295 5829

(d) 7695, 8321, 5463, 7321, 280

2. **Arrange the following numbers in descending order:**

(a) 7321, 5469, 9296, 480, 9866

(b) 1465, 7320, 776, 121, 4366

(c) 9865, 9989, 4321, 929, 1000

(d) 9000, 8800, 4000, 5000, 7700

Mental Maths

Fill in the blanks:

(a) The smallest 4 digits number is _____.

(b) The place value of a digits _____ ten times as you move one place from right to left.

(c) The number just after the given number , is called its _____.

(d) The greatest 4 digit number is _____.

Maths Lab Activity

Materials required: Sets of blue, red, orange and green coloured cards numbers from 0 to 9.

Steps:

1. Divide the students into groups of 5 (with one of them as the coordinator).
2. Provide each group with all sets of cards.

a. The green cards stand for ones place.

b. The blue cards stand for tens place.

c. The orange cards stand for hundreds place.

d. The red cards stand for thousand place .

3. The coordinator chooses a 4 digit number randomly and asks his/her group to represent the number with the help of cards.

4. Continue this exercise till all groups have presented at least 4 numbers.

5. Let the students learn the difference between place value and face value.

Example: 5762