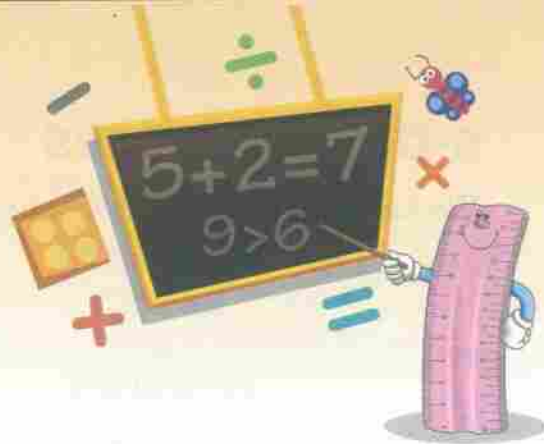


# 1

## NUMBERS AND NUMERATIONS



### WARM UP

#### India—The Amazing Country

India is the seventh largest country and the second most populated country in the world. It has 29 states and 7 union territories. India is full of amazing facts. Some of the amazing facts about it are listed below. Read these carefully.

S.No.	Superlatives	Name	Length/Height
1.	Longest river	Ganga	2525 km
2.	Longest highway	National Highway (NH44)	3745 km
3.	Longest river bridge	Bhupan Hazarika Setu, Assam	9150 m
4.	Highest cricket ground	Chail Cricket Ground, Himachal Pradesh	2444 m
5.	Longest railway station platform	Gorakhpur	1355 m
6.	Tallest mountain peak	Kangchenjunga	8586 m
7.	Highest airport	Kushok Bakula Rimpochee Airport, Leh	3256 m
8.	Largest auditorium	Sri Shanmukhanand Hall, Mumbai	2763 seats

1. Write the following in words.

- a. 2525 km \_\_\_\_\_ km      b. 3745 km \_\_\_\_\_ km  
 c. 9150 m \_\_\_\_\_ m      d. 2444 m \_\_\_\_\_ m  
 e. 1355 m \_\_\_\_\_ m      f. 8586 m \_\_\_\_\_ m

2. Fill in the blanks.

- a. The place value of 2 in 3256 is \_\_\_\_\_.  
 b. The place value of 7 in 2763 is \_\_\_\_\_.  
 c. 1000 more than 8586 is \_\_\_\_\_.  
 d. The biggest number among 2444, 3745 and 1355 is \_\_\_\_\_.  
 e.  $9150 =$  \_\_\_\_\_ thousands + \_\_\_\_\_ hundred + \_\_\_\_\_ tens + \_\_\_\_\_ ones.  
 f. \_\_\_\_\_ is the predecessor of 2763.



## 5-DIGIT NUMBERS

We know that the largest 4-digit number is 9999. When 1 is added to it, we get

$$9999 \leftarrow \text{Largest 4-digit number}$$

$$+ 1$$

$$\begin{array}{r} 9999 \\ + 1 \\ \hline 10000 \end{array} \leftarrow \text{Smallest 5-digit number}$$

10000 is a 5-digit number and read as ten thousand.  
Let us have a look on some more 5-digit numbers.

Number	Read as
10005	Ten thousand five
20409	Twenty thousand four hundred nine
30000	Thirty thousand
45499	Forty-five thousand four hundred ninety-nine
67368	Sixty-seven thousand three hundred sixty-eight
99999	Ninety-nine thousand nine hundred ninety-nine

99999 is the greatest 5-digit number.

### Writing 5-Digit Numbers in the Place Value Chart

A **place value chart** helps us to read and write a number easily.

The place value chart for numbers of 5 digits or more is divided into periods which separate the digits in groups. Look at the following place value chart.

Periods →	Thousands			Ones	
	Ten Thousands (TTh)	Thousands (Th)	Hundreds (H)	Tens (T)	Ones (O)
Places →					
Value →	10000	1000	100	10	1

The ones period has three places – Ones, Tens and Hundreds.

The thousands period has two places – Thousands and Ten thousands.

Let us place some numbers in the place value chart. Observe how it helps in reading them.

**Example 1.** Write 51648 in the place value chart and read it.

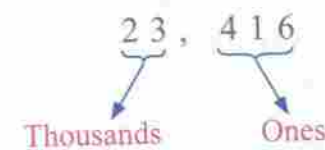
Thousands			Ones	
Ten Thousands (TTh)	Thousands (Th)	Hundreds (H)	Tens (T)	Ones (O)
5	1	6	4	8

51648 is read as fifty-one thousand six hundred forty-eight.

**TIPS**  
All the digits in the same period are read together along with periods name except ones.

**Example 2.** Write the number for 'Twenty-three thousand four hundred sixteen' in figures.  
Twenty-three thousand four hundred sixteen can be written as:

Thousands		Ones		
TTh	Th	H	T	O
2	3	4	1	6



**TIPS**  
To write a number, we separate the periods using a comma (,).

**Example 3.** Mark the periods and rewrite the following numbers.

a. 53426

b. 60043

c. 29837

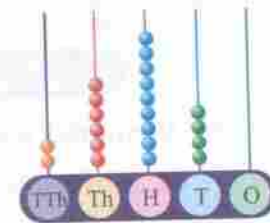
	Thousands		Ones			How to write using comma
	TTh	Th	H	T	O	
a.	5	3	4	2	6	53,426
b.	6	0	0	4	3	60,043
c.	2	9	8	3	7	29,837

### Representing 5-Digit Numbers on Abacus

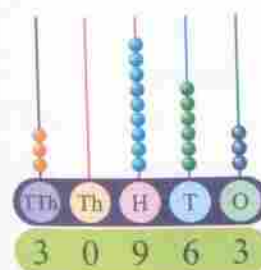
**Example 4.** Represent 26940 on the spike abacus.

The number 26940 can be represented on an abacus in the following manner.

There are no beads present in ones place. This represent zero. Four beads in tens place represent 4 tens, that is 40; nine beads in hundreds place represent 9 hundreds, that is 900; six beads in thousands place represent 6 thousands, that is 6000 and two beads in ten thousands place represent 2 ten thousands, that is 20000. So, this arrangement in the abacus represents the number 26940.



**Example 5.** Represent the number 30963 on an abacus and find the place value of each digit.



3 ones	= 3 × 1	= 3
6 tens	= 6 × 10	= 60
9 hundreds	= 9 × 100	= 900
0 thousands	= 0 × 1000	= 0000
3 ten thousands	= 3 × 10000	= 30000

Face value

Place value

**Place value** depends on the place of the digit in the number. It is the product of the place and face value.

**TIPS**  
The place value of zero is always zero.



**Example 6.** Express the following numbers in expanded form.

- $27396 = 20000 + 7000 + 300 + 90 + 6$
- $56304 = 50000 + 6000 + 300 + 4$
- $10496 = 10000 + 400 + 90 + 6$

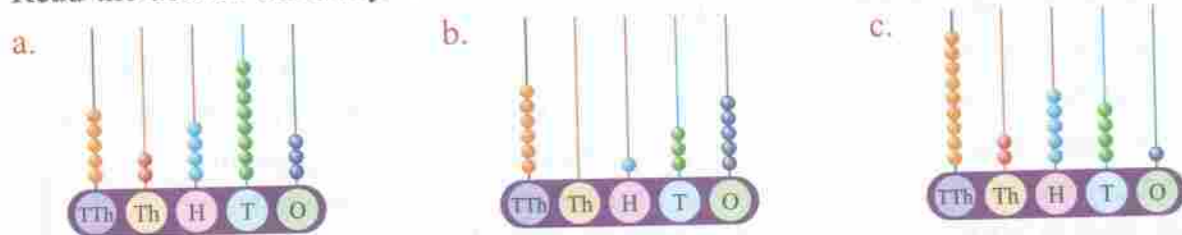
A number, when expressed as a sum of the place values of its digits, is said to be in its expanded form.

### Exercise 1.1

1. Complete the table with the place value and face value of coloured digits.

	Number	Place value	Face value
a.	53604		
b.	43183		
c.	90367		
d.	56341		
e.	20081		

2. Read the abacus carefully. Write the number and the number name.



3. Write the numeral for the number name.

- Fifty-six thousand four hundred thirteen \_\_\_\_\_
- Eighty-three thousand ninety-two \_\_\_\_\_
- Sixty-six thousand three hundred fifty-two \_\_\_\_\_
- Ninety thousand three \_\_\_\_\_

**TIPS**  
The period is not written in plural while writing the number name.

4. Represent the following numbers on the abacus.

- 25,364
- 73,648
- 90,304
- 67,854

5. Mark the periods using commas and express in expanded form.

- 53649
- 14683
- 20403
- 53967

6. Find the number having

- 4 ten thousands, 2 thousands, 8 hundreds, 6 tens and 4 ones
- 9 ten thousands, 6 hundreds, 4 tens and 9 ones

7. Write the expanded form of the following:

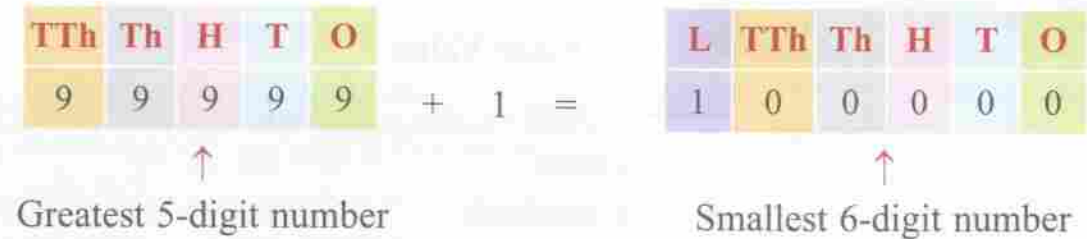
- 24639
- 70045
- 82963
- 90999

8. Write the numbers between

- 56,201 and 56,219
- 44,444 and 44,460
- 29,056 and 29,065
- 53,495 and 53,510

## 6-DIGIT NUMBERS

99999 is the greatest 5-digit number. When we add 1 to it, we get the smallest 6-digit number.



100000 is read as **one-hundred thousand** or 1 lakh.

### Writing 6-Digit Numbers in the Place Value Chart

To write a 6-digit number in the place value chart, we need a new period called **Lakhs**. Observe the following place value chart.

Periods →	Lakhs	Thousands		Ones		
Places →	Lakhs (L)	Ten Thousands (TTh)	Thousands (Th)	Hundreds (H)	Tens (T)	Ones (O)
Value →	100000	10000	1000	100	10	1

Lakh period has two places—Lakhs and Ten Lakhs about which we will learn in the next class. Now, we explore the place value chart for some 6-digit numbers.

**Example 1.** Write 500000 in the place value chart and read it aloud.

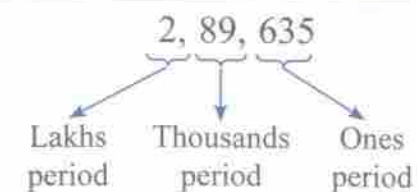
Lakhs	Thousands		Ones		
Lakhs (L)	Ten Thousands (TTh)	Thousands (Th)	Hundreds (H)	Tens (T)	Ones (O)
5	0	0	0	0	0

The number 500000 is read as five lakh.

**Example 2.** Using place value chart, mark periods in 289635 and read it aloud.

Lakhs	Thousands		Ones		
Lakhs (L)	Ten Thousands (TTh)	Thousands (Th)	Hundreds (H)	Tens (T)	Ones (O)
2	8	9	6	3	5

Using commas:

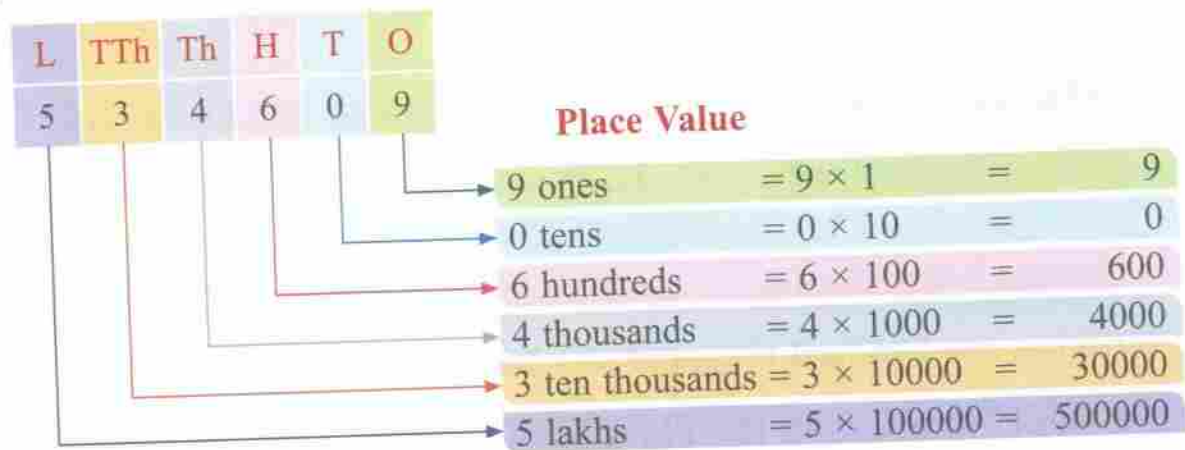


**TIPS**  
We use commas to separate periods.



**Read as:** Two lakh eighty-nine thousand six hundred thirty-five

**Example 3.** Find the place value of each digit in 534609. Express it in expanded form.

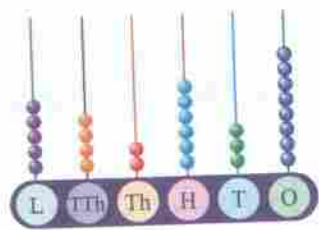


**Expanded form:**  $500000 + 30000 + 4000 + 600 + 9$

### Representing 6-Digit Numbers on the Abacus

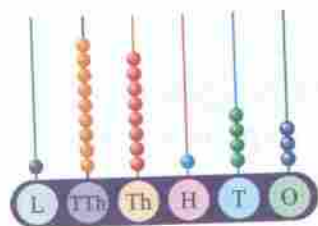
**Example 4.** Represent the following numbers on the abacus. Also write their number names.

a. 5,42,638



Five lakh forty-two thousand six hundred thirty-eight

b. 1,98,143



One lakh ninety-eight thousand one hundred forty-three

### Exercise 1.2

- Represent the following numbers in place value chart.
  - 243645
  - 537036
  - 836449
  - 604396
- Represent the following numbers on the abacus:
  - 1,03,263
  - 4,23,014
  - 5,37,364
  - 8,00,430
- Mark the periods using commas and write the number names:
  - 213064 \_\_\_\_\_
  - 536397 \_\_\_\_\_
  - 849008 \_\_\_\_\_
  - 527114 \_\_\_\_\_

4. Write the numerals for the following:

- Three lakh eight thousand four hundred sixteen \_\_\_\_\_
- Nine lakh fifty-two thousand six hundred nine \_\_\_\_\_
- Six lakh thirty-one thousand \_\_\_\_\_
- Eight lakh fifteen thousand eleven \_\_\_\_\_
- Five lakh seventeen thousand seven \_\_\_\_\_

5. Write place value of underlined digit(s) in the given numbers:

- 3,46,975 \_\_\_\_\_
- 8,46,347 \_\_\_\_\_
- 5,27,364 \_\_\_\_\_
- 1,73,640 \_\_\_\_\_
- 2,36,243 \_\_\_\_\_
- 1,09,244 \_\_\_\_\_

6. Express the following numbers in expanded form:

- 586940 \_\_\_\_\_
- 211937 \_\_\_\_\_
- 873640 \_\_\_\_\_
- 143825 \_\_\_\_\_

7. Count and write next five numbers:

a. by counting in tens.

i. 24364 \_\_\_\_\_

ii. 536496 \_\_\_\_\_

iii. 173640 \_\_\_\_\_

b. by counting in hundreds.

i. 173645 \_\_\_\_\_

ii. 504361 \_\_\_\_\_

iii. 273178 \_\_\_\_\_

c. by counting in thousands.

i. 930437 \_\_\_\_\_

ii. 197248 \_\_\_\_\_

iii. 560436 \_\_\_\_\_

8. Write the successor of the following numbers:

- 534364
- 273648
- 811143
- 840068
- 154836
- 199999

The number which comes just after the given number is called its **successor**.

9. Write the predecessor of the following numbers:

- 142730
- 50430
- 911348
- 843649
- 273645
- 546304

The number which comes just before the given number is called its **predecessor**.

10. Find the sum and difference of the place values of two 6s in each of the following numbers:

- 643654
- 462068
- 936261
- 643586



11. Answer the following:

- Which place is just to the left of the ten thousands place? \_\_\_\_\_
- Which place is just to the right of the thousands place? \_\_\_\_\_
- Which place is between the lakhs and the thousands place? \_\_\_\_\_
- How many place value positions are there between the lakhs and the ones place? \_\_\_\_\_
- How many thousands are there in 45690? \_\_\_\_\_
- How many tens are there in 936436? \_\_\_\_\_

### COMPARING NUMBERS

We have already learnt the method of comparing numbers upto 4 digits. The rules of comparison for large numbers are the same.

#### Comparing Numbers with Different Number of Digits

**Rule 1.** The greater the number of digits, the greater is the number.

**Example 1.** Compare 53645 and 933687

TTh	Th	H	T	O	L	TTh	Th	H	T	O
5	3	6	4	5	9	3	3	6	8	7
5 digits					<	6 digits				

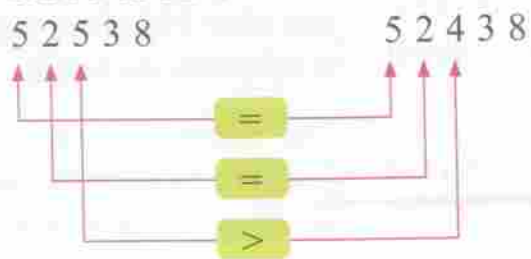
Thus,  $53645 < 933687$ .

#### Comparing Numbers with the Same Number of Digits

**Rule 2.** If the number of digits is the same, then we start comparing the digits from the extreme left. We compare the digits until we find two digits that are different. The digits that are different are compared to find the larger number.

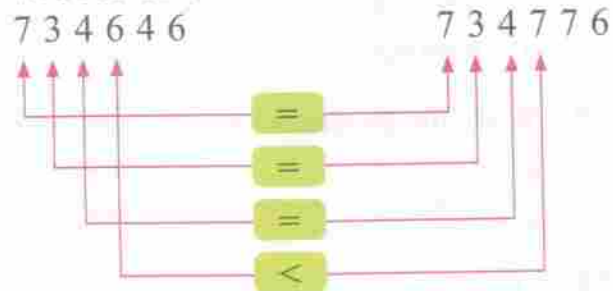
**Example 2.** Which is greater

a. 52538 or 52438?



So,  $52538 > 52438$

b. 734646 or 734776?



So,  $734646 < 734776$

### Ascending Order and Descending Order

**Ascending or increasing order** means writing numbers from the smallest to the greatest.

**Example 3.** Arrange the following numbers in ascending order:

45,656; 45,352; 45,682; 45,082

First, we arrange the given numbers in the place value chart and then start comparing.

45,082 is the smallest number and 45,682 is the greatest number

Also, 45,352 is smaller than 45,656.

So,  $45,082 < 45,352 < 45,656 < 45,682$

TTh	Th	H	T	O
4	5	6	5	6
4	5	3	5	2
4	5	6	8	2
4	5	0	8	2

**Descending or decreasing order** means writing numbers from the greatest to the smallest.

**Example 4.** Arrange the following numbers in descending order:

2,356; 45,605; 4,78,956; 67,897

First, we arrange the given numbers in the place value chart and then start comparing.

4,78,956 is the greatest number and 2,356 is the smallest number.

Also, 67,897 is greater than 45,604.

So,  $4,78,956 > 67,897 > 45,605 > 2,356$

L	TTh	Th	H	T	O
		2	3	5	6
	4	5	6	0	5
4	7	8	9	5	6
	6	7	8	9	7



### Exercise 1.3

1. Fill in the boxes with  $<$  or  $>$ .

a. 87,696  8,98,769

b. 1,95,492  1,68,678

c. 58,956  69,560

d. 5,69,422  5,66,422

e. 81,201  89,990

f. 9,99,989  9,99,999

2. Find the greatest and smallest numbers in each of the following:

a. 78,957; 67,876; 67,856; 78,857

\_\_\_\_\_

b. 9,88,232; 9,88,332; 95,657; 98,656

\_\_\_\_\_

c. 7,45,261; 7,45,562; 7,45,172; 7,45,304

\_\_\_\_\_

d. 6,78,910; 6,78,960; 6,68,960; 6,78,958

\_\_\_\_\_

3. Arrange the following numbers in ascending order:

a. 67,895; 67,656; 98,975; 65,690

\_\_\_\_\_

b. 89,876; 89,856; 89,850; 69,560

\_\_\_\_\_

c. 56,565; 5,56,567; 6,56,563; 4,56,561

\_\_\_\_\_

d. 67,654; 8,76,546; 9,56,565; 4,76,946






\_\_\_\_\_



4. Arrange the following numbers in descending order:

- a. 32,560; 32,103; 32,105; 32,206 \_\_\_\_\_
- b. 78,987; 78,978; 78,968; 78,960 \_\_\_\_\_
- c. 6,79,568; 6,79,567; 6,59,576; 6,59,678 \_\_\_\_\_
- d. 7,89,999; 7,99,999; 7,83,456; 9,96,999 \_\_\_\_\_

5. The Sun, planets and their moons form the Solar system. Have a look at some planets and their radius.

				
Earth	Jupiter	Saturn	Uranus	Mercury
6,371 km	69,911 km	58,232 km	25,362 km	2,440 km

Write the name of the planets in order of their increasing sizes.

## FORMING NUMBERS

### Without Repetition of Digits

We can form many numbers with the given digits. Let us form all the possible numbers using the given digits 1, 5 and 4.

H	T	O
1	5	4
1	4	5

1 in hundreds place

H	T	O
5	4	1
5	1	4

5 in hundreds place

H	T	O
4	1	5
4	5	1

4 in hundreds place

Out of the above numbers, 541 is the greatest number and 145 is the smallest number formed with the digits 1, 4 and 5.

### Greatest Number

To form the greatest number with the given digits, write the digits in decreasing order (descending order).

**Example 1.** Form the greatest number using the digits 6, 5, 0, 3 and 1.

We write the digits in descending order.

The greatest number formed with the given digits is 65,310.

TTh	Th	H	T	O
6	5	3	1	0

↑ greatest digit                      ↑ smallest digit

### Smallest Number

To form the smallest number with the given digits, write the digits in increasing order (ascending order).

**Example 2.** Form the smallest number using the digits 2, 7, 1, 9 and 6.

TTh	Th	H	T	O
1	2	6	7	9

↑ smallest digit                      ↑ greatest digit

We write the digits in ascending order.

The smallest number formed with the given digits is 12,679.

**Example 3.** Form the smallest number using the digits 5, 8, 4, 0 and 3.

To build the smallest number with 0 as one of the given digits, we write 0 at the second place from the left and then write the other digits in ascending order.

TTh	Th	H	T	O
3	0	4	5	8

The smallest number formed with the given digits 30,458.

### With Repetition of Digits

#### Greatest Number

To form the greatest number, write the given digits in decreasing order and repeat the greatest digit.

**Example 4.** Form the greatest 5-digit number using the digits 7, 6, 8 and 4.

We repeat the greatest digit (8).

The greatest 5-digit number formed with the given digits is 88,764.

TTh	Th	H	T	O
8	8	7	6	4

#### Smallest Number

To form the smallest number, write the given digits in increasing order and repeat the smallest digit.

**Example 5.** Form the smallest 5-digit number using the digits 7, 0 and 3.

We repeat the smallest digit (0).

The smallest 5-digit number formed with the given digits is 30,007.

TTh	Th	H	T	O
3	0	0	0	7

**Example 6.** Form the smallest 5-digit number using the digits 5, 1, 4 and 6 by repeating the digits.

We repeat the smallest digit (1).

The smallest 5-digit number formed with the given digits is 11,456.

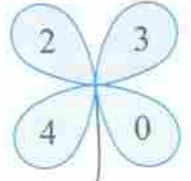
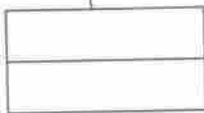
TTh	Th	H	T	O
1	1	4	5	6

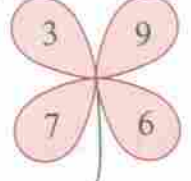



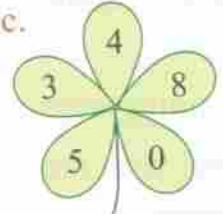



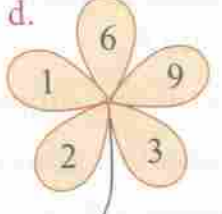

### Exercise 1.4

1. The petals of each flower carry digits. Build the largest and smallest numbers from them.

a.  

b.  

c.  

d.  

2. Build the greatest and the smallest number using all the digits.

	Digits	Greatest number	Smallest number
a.	2, 7, 3, 5		
b.	7, 5, 4, 8		
c.	9, 8, 3, 0		
d.	0, 1, 9, 6		

3. Build the greatest and the smallest 5-digit numbers using the given digits. Repetition may be allowed.

	Digits	Greatest number	Smallest number
a.	5, 8, 3, 4		
b.	6, 0, 7		
c.	2, 7, 8		
d.	9, 6, 0		
e.	5, 0		

4. Build the greatest and the smallest 6-digit numbers using the given digits. Repetition may be allowed.

	Digits	Greatest number	Smallest number
a.	1, 9, 7, 5, 0		
b.	2, 4, 6, 8		
c.	3, 7, 0, 9		
d.	6, 8, 9		
e.	4, 7		

## ROUNDING OFF NUMBERS

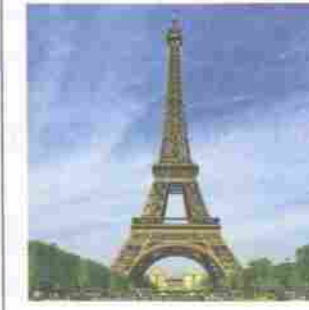
Read out the following interesting facts.



Lightning strikes the Earth about 6000 times every minute.



A hummingbird's heart beats about 1000 times in a minute.



The Eiffel Tower has about 1700 steps.



We take about 23000 breaths every day.

The above interesting facts do not give exact numbers (figures). They have only approximate numbers. The figures mentioned above might have been more or less. Such numbers are called **rounded numbers**.

### Rounding to the Nearest 10

To round off a number to the nearest 10, look at the two **tens** between which the given number lies. Then round off the number to the tens which is nearer to the given number.

**Example 1.** Round off 54 to the nearest 10.

54 lies between 50 and 60 but it is closer to 50.



So, 54 rounds down to 50.

**Example 2.** Round off 675 to the nearest 10.

675 lies exactly between 670 and 680.



So, 675 rounds up to 680.

If a number is exactly between the two tens, it is always rounded up to the higher ten.

**Example 3.** Round off 247 to the nearest 10.

247 lies between 240 and 250 but closer to 250.



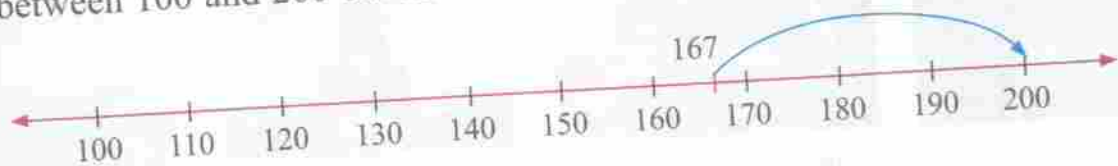
So, 247 rounds up to 250.



## Rounding to the Nearest 100

To round off a number to the nearest 100, look at the two **hundreds** between which the given number lies. Then round off the number to the hundreds which is nearer to the given number.

**Example 4.** Round off 167 to the nearest 100.  
167 lies between 100 and 200 but closer to 200.



So, 167 rounds up to 200.

**Example 5.** Round off 346 to the nearest 100.  
346 lies between 300 and 400 but closer to 300.



So, 346 rounds down to 300.

**Example 6.** Round off 550 to the nearest 100.  
550 is exactly between 500 and 600.



So, 550 rounds up to 600.

If a number is exactly between the two hundreds, it is always rounded up to the higher hundreds.



## Exercise 1.5

1. Round off the following numbers to the nearest 10.

- |          |          |          |           |           |
|----------|----------|----------|-----------|-----------|
| a. 45    | b. 209   | c. 745   | d. 559    | e. 1,045  |
| f. 2,365 | g. 5,745 | h. 9,049 | i. 10,200 | j. 14,563 |

2. Round off the following numbers to the nearest 100.

- |          |          |          |           |           |
|----------|----------|----------|-----------|-----------|
| a. 345   | b. 597   | c. 2,800 | d. 4,576  | e. 5,007  |
| f. 2,463 | g. 9,398 | h. 7,500 | i. 14,657 | j. 43,629 |

3. Round off the following numbers to the nearest 10 and 100.

	Numbers	Nearest 10	Nearest 100
a.	346		
b.	567		
c.	246		
d.	1,356		
e.	2,406		

4. Rewrite the following facts to the nearest 10 and 100.

- The height of Mount Everest is 8,848 m.
- The length of the river Ganges is 2,525 km.
- The diameter of the Earth is 12,742 km.
- The light travels 2,99,792 km in one second.

## ROMAN NUMERALS

We have learnt about Roman numerals in the previous class. There are seven basic symbols in the Roman numeral. They are written in the following table with their respective Hindu-Arabic numerals.

Roman Numerals	I	V	X	L	C	D	M
Hindu-Arabic Numerals	1	5	10	50	100	500	1000

The first ten Roman numerals are:

I	II	III	IV	V	VI	VII	VIII	IX	X
1	2	3	4	5	6	7	8	9	10

### Rules for Writing Roman Numerals

**Rule 1.** Repetition of a Roman numeral means addition.

- Examples:**
- |                        |                              |
|------------------------|------------------------------|
| a. $II = 1 + 1 = 2$    | b. $III = 1 + 1 + 1 = 3$     |
| c. $XX = 10 + 10 = 20$ | d. $XXX = 10 + 10 + 10 = 30$ |

**Rule 2.** The symbols I, X, C and M can be repeated up to three times only.

**Rule 3.** Smaller numeral written to the right of a greater numeral is always added to the greater numeral.

- Examples:**
- |                                 |
|---------------------------------|
| a. $XVII = 10 + 5 + 1 + 1 = 17$ |
| b. $LXV = 50 + 10 + 5 = 65$     |

**Rule 4.** A smaller numeral written to the left of a greater numeral is always subtracted from the greater numeral.

- Examples:**
- |                     |                         |
|---------------------|-------------------------|
| a. $IV = 5 - 1 = 4$ | b. $XC = 100 - 10 = 90$ |
|---------------------|-------------------------|

### TIPS

- There is no symbol for zero.
- V, L and D are not repeated.



**Rule 5.** When a smaller numeral is placed between two greater numerals, then it is always subtracted from the larger numeral immediately following it.

**Examples:** a.  $XIV = 10 + (5 - 1) = 14$   
 b.  $XIX = 10 + (10 - 1) = 19$

**Rule 6.** I can be subtracted from V and X. X can be subtracted from L and C. C can be subtracted from D and M.

**Examples:** a.  $XLV = (50 - 10) + 5 = 45$   
 b.  $XLIX = (50 - 10) + (10 - 1) = 40 + 9 = 49$

**Example 1.** Write the following in Roman numerals.

a.  $48 = 40 + 8 = XL + VIII = XLVIII$     b.  $75 = 70 + 5 = LXX + V = LXXV$   
 c.  $97 = 90 + 7 = XC + VII = XCVII$     d.  $89 = 80 + 9 = LXXX + IX = LXXXIX$

**Example 2.** Write the following in Hindu-Arabic numerals.

a.  $LXV = 50 + 10 + 5 = 65$     b.  $LXXIII = 50 + 10 + 10 + 3 = 73$   
 c.  $XLV = (50 - 10) + 5 = 40 + 5 = 45$   
 d.  $LXXIX = 50 + 10 + 10 + (10 - 1) = 70 + 9 = 79$



### Exercise 1.6

1. Write the following in Roman numerals:

a. 89    b. 25    c. 32    d. 93    e. 59  
 f. 86    g. 18    h. 77    i. 29    j. 97  
 k. 8    l. 69    m. 64    n. 49    o. 42

2. Write the following in Hindu-Arabic numerals:

a. XLII    b. XCVIII    c. XLIX    d. XXIX    e. LXXXIV  
 f. LXVII    g. XCVI    h. LXXI    i. XXXI    j. XLVIII  
 k. LV    l. LXXXVIII    m. XCI    n. LXII    o. XXX

3. Give your answer in Hindu-Arabic numerals:

a.  $XXI - XVIII =$  \_\_\_\_\_    b.  $XXVII + IX =$  \_\_\_\_\_  
 c.  $XXXIII - XIV =$  \_\_\_\_\_    d.  $X + IX =$  \_\_\_\_\_

4. Write your answer in Roman numeral:

a.  $1 + 1 =$  \_\_\_\_\_    b.  $5 - 1 =$  \_\_\_\_\_  
 c.  $10 + 4 =$  \_\_\_\_\_    d.  $10 + 10 =$  \_\_\_\_\_

### Points to Remember

- ❖ The place value chart is separated into groups called periods which are further separated into places.
- ❖ The place value of a digit depends on its position in the number.
- ❖ The face value of a digit in a number is the value of the digit itself irrespective of its place in the number.
- ❖ The successor of a number is 1 more than the number.
- ❖ The predecessor of a number is 1 less than the number.
- ❖ The greater the number of digits, the greater is the number.
- ❖ If the number of digits is the same, then we start the comparison of the digits from the left.
- ❖ When a set of given numbers is arranged from the smallest to the largest, the numbers are said to be in ascending order.
- ❖ When a set of given numbers is arranged from the largest to the smallest, the numbers are said to be in descending order.
- ❖ There are seven letters used to represent numbers in Roman numerals — I, V, X, L, C, D and M.



### LEARNING UPDATES

1. The following table shows the heights of the six mountain of India in feet (ft.).

Rishi Pahar	Nanda Devi	Kangchenjunga	K12	Mukut Parbat	Kamet
22940	25643	28169	24370	23760	25446

- a. Which is the highest mountain? \_\_\_\_\_
- b. Arrange the heights in ascending order? \_\_\_\_\_
- c. Read aloud the heights. \_\_\_\_\_
- d. Round off the heights of mountains as given in the table to the nearest 100. \_\_\_\_\_
2. Write the place value and face value of the underlined digits.
- a. 23,456    \_\_\_\_\_    b. 6,36,483    \_\_\_\_\_
- c. 5,67,364    \_\_\_\_\_    d. 1,00,486    \_\_\_\_\_
3. Put the correct sign (>, <, or =) :
- a. 26,436  26,456    b. 5,83,648  5,43,648
- c. 29,911  29,191    d. 4,09,150  4,90,150



4. Write the successor and predecessor of the following numbers:

- a. 14,586 \_\_\_\_\_ b. 32,008 \_\_\_\_\_  
 c. 39,009 \_\_\_\_\_ d. 69,897 \_\_\_\_\_

5. Arrange the numbers:

- a. 28500, 82500, 52800, 58002, 39542, 670019 in ascending order  
 b. 87696, 37852, 9998, 3705, 78765, 986777 in descending order

6. Write the greatest number using each of the following digits only once.

- a. 3, 4 and 8      b. 7, 0 and 8      c. 1, 3 and 9

7. Write the smallest 5-digit number using digits 8, 4, 7 and 3 (repetition may allowed).

8. Fill in the boxes by  $>$ ,  $<$  or  $=$ .

- a.  $55 + 27$   LXXXIII      b.  $97 - 38$   LXIX  
 c.  $8 \times 9$   XXVIII      d. XXXIV   $100 - 64$

9. Write the 'smallest' number using each of the following digits only once.

- a. 1, 2 and 3      b. 2, 9 and 5      c. 3, 1 and 0

10. Write the greatest 6-digit number using digits 5, 7, 6, 3 and 1 (repetition may allowed).

11. What will be the answer when 1 is subtracted from XXX?

### Mental Maths

Tick (✓) the correct option.

1. Which is the same as 70 tens?

- a. 7 ones       b. 70 ones   
 c. 7 hundreds       d. 70 hundreds

2. One lakh is a \_\_\_\_\_-digit number.

- a. four       b. five       c. six       d. seven

3. Which number has 5 in the thousands place?

- a. 85420       b. 82059       c. 872500       d. 58560

4. Which number has the smallest value in the hundreds place?

- a. 89876       b. 76589       c. 787777       d. 209094

5. The Roman numeral for 79 is

- a. LXXIX       b. MCIX       c. LXXX       d. IXXL

6. The Roman numeral for 84 is

- a. LXIVXX       b. LXXXIV       c. LXXXVI       d. LIXXX



### Fun Activity

Use the given clues to fill in the boxes:

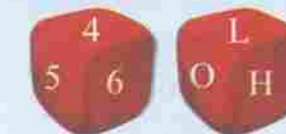
- Across** ▶ a. The numeral for 'five lakh thirty-four thousand five hundred seventy'  
 b. 10000 more than 75364  
 c. The predecessor of 682120  
 d. The successor of 210049  
 e. The Hindu-Arabic numeral for DXLII  
 f. The greatest 5-digit number using digits 1, 7, 0, 9  
 g. The short form of  $50000 + 9000 + 200 + 80 + 4$   
 h. The smallest among 27,960; 8,36,404; and 5,00,748
- Down** ▼ e. 1000 less than 6926      f. The greatest three-digit number  
 i. 784 rounded off to the nearest 10      j. Number of tens in 140  
 k. Numeral for 'four lakh ten thousand two hundred fourteen'

a.						
	b.			k.		
		c.				
			d.			
			e.			
		f.		i.		
	g.			j.		
h.						

### MATHS LAB ACTIVITY

**Objective:** To understand and form numbers

**Materials Required:** Place value chart, two dice (numbers 1-6 written on one and places L, TTh, Th, H, T and O on other), pencil and sheets of paper



- Steps:** 1. Divide the class into pairs.  
 2. Ask one student to roll the die having numbers and the other student roll the die having places.  
 3. Assume the number on the first die is 4 and the place on the other die is 'ten thousands (TTh)'.  
 4. Repeat the exercise two times more.  
 5. Let the die having numbers shows 3 while the die having places shows 'lakhs (L)', and on the last attempt, the die having numbers shows 1 and the die having places shows 'tens (T)'.  
 6. Record the numbers after each turn in the place value chart as shown below.

Lakhs	Ten Thousands	Thousands	Hundreds	Tens	Ones
3	4			1	

Here, the place value chart shows the number 3,40,010.

7. Repeat the same activity with other pairs. The pair which forms the largest number is the winner.