1 Knowing our Numbers

INTRODUCTION

We have already learnt about counting numbers or natural numbers in our earlier classes. Let us recall them.

Natural numbers: Counting numbers 1, 2, 3, 4, 5, ... are called natural numbers.

Thus, natural numbers are: 1, 2, 3, 4, 5, 6, ...

Whole numbers: Natural numbers together with 0 are called whole numbers.

Thus, whole numbers are: 0, 1, 2, 3, 4, 5, 6, ...

Digits: Symbol(s) used to represent a number are called digits. 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 are ten digits.

Thus, digits are: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9

There are actually benefits of knowing our numbers. Numbers are written on currency notes and on coins. If you know numbers really well, you can use numbers in real world situations *e.g.* in business, in games, in operations (addition, subtraction, multiplication and division) involving numbers and think more flexibly and efficiently.

INDIAN SYSTEM OF NUMERATION

In Indian system of numeration, we separate the digits of a number using groups which are called **periods**. Ones, Thousands, Lakhs, Crores, etc. are periods. Further, each period is separated into places. Following place value chart known as **Indian Place Value Chart**, shows the separation of some numbers into periods and places.

Indian Place Value Chart

Periods	Crores		Lakhs		Thousands		Ones		
Places	Ten Crores (TC)	Crores (C)	Ten Lakhs (TL)	Lakhs (L)	Ten Thousands (TTh)	Thousands (Th)	Hundreds (H)	Tens (T)	Ones (O)
Numbers						8	5	9	7
					3	6	8	7	9

The place value chart helps us to determine the place value and face value of a digit in a number.

For example, in 8597, let us find the place value and face value of each digit.

Th	H	T	O
8	5	9	7

Digit	**Place Value**	**Face Value**
8	8 thousands = 8000	8
5	5 hundreds = 500	5
9	9 tens = 90	9
7	7 ones = 7	7

Again consider 36879 and let us find the place value and face value of its each digit.

TTh	Th	H	T	O
3	6	8	7	9

Digit	**Place Value**	**Face Value**
3	3 ten thousands = 30000	3
6	6 thousands = 6000	6
8	8 hundreds = 800	8
7	7 tens = 70	7
9	9 ones = 9	9

A number can also be expressed in its **expanded form** with the help of place value chart.

For example, $8597 = 8000 + 500 + 90 + 7$

and $36879 = 30000 + 6000 + 800 + 70 + 9$

Remember

1. The place value of a digit depends on its position in the place value chart, whereas the face value does not depend on its position.
2. The place value of 0 is 0 itself, wherever it may be.

COMPARING NUMBERS

Normally, we would be using numbers to show the number of students in a class or in a school, the number of teachers in a school or whatever we want.

Let us now learn to compare numbers.

For comparing two numbers, we use following rules.

(*i*) The greater the number of digits, the greater is the number.

(*ii*) If two numbers have the same number of digits, the number with bigger digit on the greatest place is greater.

Comparing One-Digit Numbers

The comparison of one-digit numbers depends on their values. The value of a one-digit number is its face value or place value. The face value or place value of the digit of a one-digit number is the same.

For example, $8 > 5$, $9 > 7$, $4 < 6$, $7 > 3$, $2 < 5$, $6 < 9$, etc.

Remember

Between two one-digit numbers, a number which has the greater value (face value or place value) is greater than the number which has the smaller value.

Comparing Two-Digit Numbers

A 2-digit number is always greater than a 1-digit number.

When both the numbers are two-digit numbers, then

(*i*) The number having greater digit at tens place is greater.

For example, $98 > 76$, $59 > 42$, $26 > 13$, $18 < 25$, $39 < 54$, $73 < 89$, etc.

(*ii*) If the digit at tens place of both numbers are equal, then the digits at ones place of both the numbers are considered. The number having the greater digit at ones place is greater than the other.

For example, $97 > 94$, $65 > 62$, $79 > 77$, $58 > 55$, $46 > 42$, $38 > 31$, $25 > 24$, $19 > 13$, etc.

Arranging Numbers in Ascending and Descending Order

When the numbers are arranged from the smallest to the largest, they are said to be in **ascending order**. Arranging numbers from the largest to the smallest is known as **descending order** of numbers.

For example, numbers 26, 45, 53, 58, 67, 75 are arranged in ascending order and the numbers 93, 84, 71, 66, 52, 49, 36, 25, 18 are arranged in descending order.

Comparing Numbers of Three Digits or more than Three Digits

1. First check if a number has greater hundreds than the other. A number having greater hundreds than other is a greater number.

   For example, $832 < 965$ because 965 has greater hundreds than 832.

2. If the numbers have the same hundreds, then check the tens. The number having greater tens is greater.
   For example, 439 > 421 because both have hundreds 4 but 439 has greater tens than 421.
3. If the numbers have the same hundreds and the same tens, then look at the ones. The number having the greater ones is greater.
   For example, 864 < 867 because both numbers have hundreds 8 and tens 6 but 867 has greater ones.

LARGE NUMBERS

We know that 1 is the smallest one-digit number and 9 is the greatest one-digit number. Look at the following pattern. It will help you to understand large numbers.

Greatest number of one digit = 9
Smallest number of two digits = 10 (9 + 1 = 10)
Greatest number of two digits = 99
Smallest number of three digits = 100 (99 + 1 = 100)
Greatest number of three digits = 999
Smallest number of 4 digits = 1000 (999 + 1 = 1000)
Greatest number of four digits = 9999
Smallest number of five digits = 10000 (9999 + 1 = 10000)

10000 comes next to 9999. 10000 is called ten thousands.

Also $10000 = 10 \times 1000$

This pattern also continues for large numbers. Continuing the pattern, we find that 99999 is the greatest 5-digit number and 99999 + 1 = 100000 is the smallest 6-digit number.

Similarly, 999999 is the greatest 6-digit number and 999999 + 1 = 1000000 is the smallest 7-digit number. Also 9999999 is the greatest 7-digit number and 9999999 + 1 = 10000000 is the smallest 8-digit number. 99999999 is the greatest 8-digit number.

Use of Commas in Large Numbers

Commas are placed in large numbers to help us read and write them easily. In Indian system of numeration, we use ones, tens, hundreds, thousands, ten thousands and then lakhs, ten lakhs and crores, ten crores places. The first comma comes after hundreds place (three digits from the right), the second comma comes after ten thousands place (two digits later, *i.e.*, five digits from the right), the third comma comes after ten lakh place (another two digits later, *i.e.*, seven digits from the right) and so on.

Remember

1. A comma (,) is used to differentiate periods.
2. According to Indian system of numeration, the first comma is placed after the hundreds place. Commas are then placed after every two digits.

Example: *Write "Seven crore five lakh sixty-five thousands and seventy-eight" in numerals.*
Sol. 7,05,65,078.

Expanded Form of Large Numbers

When we expand a number to show the value of each digit, we are writing the number in expanded form. We will start by placing the number in the place value chart. We identify the digits in ones place, tens place, hundreds place, thousands place and so on. In the standard system called base ten, each **place** represents ten times the **value** of the **place** to its right.

Let us express the following numbers in expanded form:

(*i*) 54862697 (*ii*) 893695421 (*iii*) 4859716 (*iv*) 752938

First we write these numbers in place value chart.

	Crores		Lakhs		Thousands		Ones		
Number	**Ten Crores**	**Crores**	**Ten Lakhs**	**Lakhs**	**Ten Thousands**	**Thousands**	**Hundreds**	**Tens**	**Ones**
5,48,62,697	–	5	4	8	6	2	6	9	7
89,36,95,421	8	9	3	6	9	5	4	2	1
48,59,716	–	–	4	8	5	9	7	1	6
7,52,938	–	–	–	7	5	2	9	3	8

Now, we express above numbers in expanded form easily.

(*i*) 5,48,62,697 = 50000000 + 4000000 + 800000 + 60000 + 2000 + 600 + 90 + 7

(*ii*) 89,36,95,421 = 800000000 + 90000000 + 3000000 + 600000 + 90000 + 5000 + 400 + 20 + 1

(*iii*) 48,59,716 = 4000000 + 800000 + 50000 + 9000 + 700 + 10 + 6

(*iv*) 7,52,938 = 700000 + 50000 + 2000 + 900 + 30 + 8

Comparing Large Numbers

In general, for comparing large numbers, the rules are given below

1. The number having more digits is greater.
2. If two numbers have the same number of digits, we compare them on the basis of extreme left digits. The number with greater extreme left digit is greater.

   For example,

   (*i*) 7529 > 6983 because 7 > 6 (*ii*) 45819 > 25918 because 4 > 2

   (*iii*) 90526 > 81749 because 9 > 8
3. If the extreme left digits of two numbers are the same, we compare them on the basis of the next digits towards their right and so on.

   For example,

   (*i*) 78562 > 73946 because 7 = 7 whereas 8 > 3

   (*ii*) 96451 > 96279 because 96 = 96 but 4 > 2

INTERNATIONAL SYSTEM OF NUMERATION

The International system is followed by the most of the countries of the world. In **International System of Numeration,** we use Ones, Thousands, Millions, Billions, etc as periods.

Place value chart used in International System of Numeration is shown below. In each period, there are three places.

Periods	Billions			Millions			Thousands			Ones		
Places	Hundred Billions	Ten Billions	Billions	Hundred Millions	Ten Millions	Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
Numbers					6	5	9	3	2	7	0	8
						7	9	4	5	8	2	1
							5	3	6	7	4	8
					2	0	0	0	0	0	0	8

The first comma marks thousands and the next comma marks millions and so on.
For example,

(*i*) The number 65932708 is written as 65,932,708 and read as sixty-five million nine hundred thirty-two thousand seven hundred eight.

(*ii*) Again the number 7945821 is written as 7,945,821 and read as seven million nine hundred forty-five thousand eight hundred twenty-one.

Example 1. *Insert commas* 536748 *and write in words.*

Sol. 536,748; five hundred thirty-six thousand seven hundred forty-eight.

Example 2. *Write "Twenty million and eight" in numerals.*

Sol. 20,000,008

Example 3. *Write "Eight million five hundred seventeen thousand seven hundred fifteen" in numeral.*

Sol. 8,517,715

Example 4. *Write the following number in words:* 718, 456, 329.

Sol. Seven hundred eighteen million, four hundred fifty-six thousand three hundred twenty-nine.

Example 5. *How many millions make one billion?*

Sol. Since 1 billion = 1000 millions

So, 1000 millions make one billion.

Solved Examples

1. *Fill in the blanks:*

(*i*) 1 *lakh* = ... *ten thousand* (*ii*) 1 *million* = ... *hundred thousand*

(*iii*) 1 *crore* = ... *ten lakh* (*iv*) 1 *crore* = ... *million*

(*v*) 1 *million* = ... *lakh*

Sol. (*i*) 1 lakh = 10 ten thousand [$\because$ 1 Lakh = 1,00,000 and ten thousand = 10,000]

(*ii*) 1 million = 10 hundred thousand [$\because$ 1 million = 1,000,000 and 1 hundred thousand = 1,00,000]

(*iii*) 1 crore = 10 ten lakh [$\because$ 1 crore = 1,00,00,000 and ten lakh = 10,00,000]

(*iv*) 1 crore = 10 million [$\because$ 1 crore = 1,00,00,000 and 1 million = 1,000,000]

(*v*) 1 million = 10 lakh [$\because$ 1 million = 1,000,000 and 1 lakh = 1,00,000]

2. *Place commas correctly and write the numerals.*

(*i*) *Seventy-three lakh seventy-five thousand three hundred seven.*

(*ii*) *Nine crore five lakh forty-one.*

(*iii*) *Seven crore fifty-two lakh twenty-one thousand three hundred two.*

(*iv*) *Fifty-eight million four hundred twenty-three thousand two hundred two.*

(*v*) *Twenty-three lakh thirty thousand ten.*

Sol. (*i*) 73,75,307 (*ii*) 9,05,00,041 (*iii*) 7,52,21,302 (*iv*) 58,423,202

(*v*) 23,30,010

3. *Insert commas suitably and write the names according to Indian System of Numeration.*

(*i*) 87595762 (*ii*) 8546283 (*iii*) 99900046 (*iv*) 98432701

Sol. (*i*) 8,75,95,762

Eight crore seventy-five lakh ninety-five thousand seven hundred sixty-two.

(*ii*) 85,46,283

Eighty-five lakh forty-six thousand two hundred eighty-three.

(*iii*) 9,99,00,046

Nine crore ninety-nine lakh forty-six.

(*iv*) 9,84,32,701

Nine crore eighty-four lakh thirty-two thousand seven hundred one

4. *Insert commas suitably and write the names according to International System of Numeration.*

(*i*) 78921092 (*ii*) 7452283 (*iii*) 99985102 (*iv*) 48049831

Sol. (*i*) 78,921,092

Seventy-eight million nine hundred twenty-one thousand ninety-two.

(*ii*) 7,452,283

Seven million four hundred fifty-two thousand two hundred eighty-three.

(*iii*) 99,985,102

Ninety-nine million nine hundred eighty-five thousand one hundred two.

(*iv*) 48,049,831

Forty-eight million forty-nine thousand eight hundred thirty-one.

Exercise 1.1

1. Fill in the blanks:

(*i*) 1 thousand = ... tens. (*ii*) 1 lakh = ... hundreds.

(*iii*) 1 crore = ... lakhs. (*iv*) 1 crore = ... thousands.

(*v*) 1 crore = ... millions.

2. Place commas correctly and write the numerals.

(*i*) Sixty-seven lakh eighty-two thousand six hundred one

(*ii*) Eight crore seven lakh seventy-nine.

(*iii*) Five crore seventy-six lakh thirty-seven thousand six hundred four.

(*iv*) Ninety-one million eight hundred fifty-seven thousand six hundred nine.

3. Insert commas suitably and write the number names according to Indian system of numeration.

(*i*) 58426973 (*ii*) 6354793

(*iii*) 77700087 (*iv*) 96537801

4. Insert commas suitably and write the number names according to International system of numeration.

(*i*) 87653097 (*ii*) 6547785

(*iii*) 77784203 (*iv*) 56053842

FORMING NUMBERS

With the given digits we can form numbers:

- For the greatest number, we write the digits in decreasing order, *i.e.*, we start with the greatest digit from the extreme left.
- For the smallest number, we write the digits in increasing order, *i.e.*, we start with the smallest non-zero digit from the extreme left.
- If there is one digit zero, we write it in the second left position and then write the remaining digits in increasing order to form the smallest number.

Example 1. *Write the greatest and smallest* 5*-digit numbers using* 3, 4, 9, 0 *and* 8.

Sol. The greatest 5-digit number using the given digits is 98430.

The smallest 5-digit number using the given digits is 30489.

Example 2. *Write the greatest* 6*-digit number using the digits* 8, 7, 0, 6, 9 *and* 2 *with* 9 *at the hundred place.*

Sol. First we write 9 at hundreds place. Then we write the remaining digits in descending order at the empty place.

L	TTh	Th	H	T	O
			9		

So, the required 6-digit number is

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

Example 3. *Write the greatest and smallest* 5*-digit numbers from* 3, 5, 4 *and* 9 *using one digit twice.*

Sol. For greatest number, we repeat 9 since it is the greatest digit.

So, 5-digit greatest number is 99543.

SOLVING PROBLEMS ON LARGE NUMBERS

Now, we will solve problems on large numbers *i.e.*, addition, subtraction, multiplication and division. Before solving, let us learn conversion of units in metric system.

Metric System (System of Measuring)

Units of Length

10 millimetre (mm) = 1 centimetre (cm)	10 dam = 1 hectometre (hm)
10 cm = 1 decimetre (dm)	10 hm = 1 kilometre (km)
10 dm = 1 metre (m)	1 km = 1000 m
10 m = 1 decametre (1 dam)	1 m = 100 cm

Units of Weight

10 milligram (mg) = 1 centigram (cg)	10 dag = 1 hectogram (hg)
10 cg = 1 decigram (dg)	10 hg = 1 kilogram (kg)
10 dg = 1 gram (g)	1 kg = 1000 g
10 g = 1 decagram (dag)	

Units of Capacity

10 millilitres (ml) = 1 centilitre (cl)	10 dal = 1 hectolitre (hl)
10 cl = 1 decilitre (dl)	10 hl = 1 kilolitre (kl)
10 dl = 1 litre (*l*)	1 *l* = 1000 ml
10 *l* = 1 decalitre (dal)	1 kl = 1000 *l*

Remember

1. To convert a higher unit into a smaller unit, we multiply by 10, 100 or 1000, etc.
2. To convert a smaller unit into a higher unit, we divide by 10, 100 or 1000, etc.

Solved Examples

1. *A book exhibition was held for four days in a school. The number of tickets sold at the counter on the first, second, third and final day was respectively* 1094, 1812, 2050 *and* 2751. *Find the total number of tickets sold on all the four days.*

Sol. Total tickets sold on all the four days

$= 1094 + 1812 + 2050 + 2751$

$= 7707$

Hence, total number of tickets sold on all the four days of exhibition = 7707

$$\begin{array}{r} 1094 \\ 1812 \\ 2050 \\ +\ 2751 \\ \hline 7707 \end{array}$$

2. *Shekhar is a famous cricket player. He has so far scored* 6980 *runs in test matches. He wishes to complete* 10,000 *runs. How many more runs does he need?*

Sol. Runs scored so far by famous cricket player Shekhar = 6980

As he wishes to complete 10,000 runs,

So more runs which he needs to complete 10,000 runs.

$= 10,000 - 6,980$

$= 3,020$

Hence, Shekhar requires 3,020 more runs.

```
 10,000
- 6,980
--------
  3,020
--------
```

3. *In an election, the successful candidates registered* 5,77,500 *votes and his nearest rival scored* 3,48,700 *votes. By what margin did the successful candidate win the election?*

Sol. Votes secured by successful candidates = 5,77,500

Votes secured by his nearest rival = 3,48,700

Margin by which the successful candidate won the election

$= 5,77,500 - 3,48,700 = 2,28,800$

```
  5,77,500
- 3,48,700
----------
  2,28,800
----------
```

4. *Kirti bookstore sold books worth* ₹ 2,85,891 *in the first week of the June and books worth* ₹ 4,00,768 *in the second week of the month. How much was the sale for the two weeks together? In which week was the sale greater and by how much?*

Sol. Total sale of books in two weeks together

$= ₹ 2,85,891 + ₹ 4,00,768$

$= ₹ 6,86,659$

```
  2,85,891
+ 4,00,768
----------
  6,86,659
----------
```

Again, as 4,00,768 is greater than 2,85,891,

```
  4,00,768
- 2,85,891
----------
  1,14,877
----------
```

So sale in second week was greater than Ist week. Hence, sale in second week was greater than the sale in first week by ₹ 1,14,877.

5. *Find the difference between the greatest and the least numbers that can be written using the digits* 6, 2, 7, 4, 3 *each only once.*

Sol. By using the digits 6, 2, 7, 4, 3

Greatest number = 76,432

Least number = 23,467

Difference = 76,432 – 23,467

```
  76,432
- 23,467
--------
  52,965
--------
```

Hence, the difference between the greatest and the least number = 52,965

6. *A machine on an average manufactures* 2,825 *screws a day. How many screws did it produce in the month of January* 2006*?*

Sol. Screws produced in one day = 2,825

Number of days in January = 31

So, screws produced in the month of January 2006

$= 2825 \times 31 = 87575$

Hence, 87,575 screws were produced in January 2006.

```
  2825
×   31
------
  2825
 84750
------
 87575
------
```

7. *A merchant had* ₹ 78,592 *with her. She placed an order for purchasing* 40 *radio sets at* ₹ 1200 *each. How much money will remain with her after the purchase?*

Sol. A merchant placed an order for purchasing 40 radio sets at ₹ 1,200 each.

Therefore, cost of radio sets = ₹ $(1,200 \times 40)$ = ₹ 48,000

She had ₹ 78,592 and she spent ₹ 48,000

Money left with her = 78,592
− 48,000
30,592

Hence, ₹ 30,592 will remain with her after the purchase.

8. *A student multiply 7236 by 65 instead of multiplying by 56. By how much was his answer greater than the correct answer?* [**Hint:** *Do you need to do both the multiplications?*]

Sol. Difference between 65 and 56 = 65 – 56 = 9

His answer was greater than the correct answer by 7236 × 9 = 65,124

Hence, his answer was greater than the correct answer by 65,124.

```
 7236
×   9
------
65,124
```

9. *To stitch a shirt 2 m 15 cm cloth is needed. Out of 40 m cloth, how much shirts can be stitched and how much cloth will remain?* [**Hint:** *Convert data in cm*]

Sol. 2 m 15 cm = (2 × 100) cm + 15 cm = 200 cm + 15 cm = 215 cm

and 40 m = (40 × 100) cm = 4,000 cm.

Cloth required to stitch one shirt = 215 cm

Number of shirts which can be stitched of 4,000 cm cloth = 4000 ÷ 215

Hence, 18 shirts can be made and 130 cm or 1 m 30 cm cloth will remain.

```
        18
215 ) 4000
    − 215
    -----
      1850
    − 1720
    ------
       130
```

10. *Medicine is packed in boxes each weighing 4 kg 500 g. How many such boxes can be loaded in a Van which cannot carry beyond 800 kg?*

Sol. Since 1 kg = 1000 g

So, 4 kg 500 g = (4 × 1000) g + 500 g

= 4000 g + 500 g = 4500 g

and 800 kg = (800 × 1000) g = 800000 g

So, the number of boxes can be loaded in the Van

= 800000 ÷ 4500

$= \frac{800000}{4500} = 177$

```
        177
4500 ) 800000
     −4500
     -----
       35000
     −31500
     ------
        3500
```

Hence, 177 boxes at maximum can be loaded in the van.

11. *The distance between the school and the house of a student is 1 km 875 m. Everyday she walks both ways. Find the total distance covered by her in six days.*

Sol. 1 km 875 m = (1 × 1000) m + 875 m

= 1000 m + 875 m

= 1875 m [∵ 1 km = 1,000 m]

Distance covered by the student each day

= 2 × (Distance between the school and the house)

= 2 × (1 km 875 m) = (2 × 1875) m = 3750 m

Distance covered in 6 days = 3750 × 6 = 22500 m

```
 3750
×   6
------
22500
```

Hence, distance covered in 6 days = 22,500 m = 22 km 500 m.

12. *A vessel has 4 litres and 500 ml of curd. In how many glasses each of 25 ml capacity can it be filled?*

Sol. Since 1 litre = 1000 ml

So, 4 litre 500 ml = (4 × 1000) ml + 500 ml
= 4000 ml + 500 ml = 4500 ml

Capacity of one glass = 25 ml

Therefore, number of glasses that can be filled = 4500 ÷ 25 = 180

Hence, 180 glasses can be filled.

$$\begin{array}{r} 180 \\ 25\overline{)4500} \\ 25 \\ \hline 200 \\ 200 \\ \hline 0 \end{array}$$

Exercise 1.2

1. Write the smallest and the greatest 5-digit numbers using
   (*i*) 2, 3, 5, 8, 7 (*ii*) 4, 9, 6, 0, 3 (*iii*) 8, 3, 2, 0, 7
2. Write the greatest and the smallest numbers using 3, 2, 6, 0, 8 with 2 at hundreds place.
3. A machine on an average, manufactures 645 nuts in a day. How many nuts did it produce in the month of October 2017?
4. To stitch a shirt, 3 m 25 cm cloth is needed. Out of 50 m cloth, how many shirts can be stitched and how much cloth is left behind? [**Hint:** First convert each measurement in cm]
5. A vessel contains 6 litres 400 ml of milk. How many glasses of 50 ml each can be filled?
6. The distance between the house and office of a lady is 2 km 350 m. Every day she walks from house to her office and then from her office to house. Find the total distance covered by her in five working days.
7. Find the difference between the greatest and the least number that can be written using the digits 5, 3, 7, 4, 6 each only once.
8. To stitch one shirt, 2 m 15 cm of cloth is required. How much cloth is required to stitch 85 shirts?
9. A rope 62 m 80 cm long has been cut into 40 equal pieces. Find the length of each piece.
10. 105 kg of wheat is contained in one bag. Find the total quantity of wheat contained in 64 bags of wheat.
11. A car travels a distance of 1375 km in 25 hours. What is the speed of car in km/hr?
12. Cost of 1 doll is ₹ 63.50. Find the cost of 87 such dolls.

ESTIMATION

Estimation (or estimating) is the process of finding an **estimate** or approximation that is usable for some purpose. Estimation involves approximating a quantity to an accuracy required.

Estimating to the Nearest Tens by Rounding Off

The numbers 1, 2, 3 and 4 are nearer to 0 than to 10. Therefore, we round off 1, 2, 3 and 4 to 0. Numbers 6, 7, 8 are nearer to 10, therefore we round off them to 10. Note that number 5 is at equal distance from 0 and 10 both, it is common practice to round off it as 10.

Examples:

We round off some numbers to the nearest tens:

52 → 50, 39 → 40, 78 → 80, 615 → 620, 4956 → 4960, 99 → 100 etc.

Estimating to the Nearest Hundreds by Rounding Off

The numbers 1 to 49 are nearer to 0 than to 100. Therefore, we round off the numbers 1 to 49 to 0. The numbers 51 to 99 are nearer to 100 than to 0. Therefore, we round off the numbers 51 to 99 to 100. Number 50 is equidistant from 0 and 100 both, it is common practice to round off it as 100.

Now, consider numbers 512 and 287.

512 is closer to 500 than to 600, therefore it is rounded off to 500.

287 is closer to 300 than to 200, therefore it is rounded off to 300.

Similarly,

449 → 400, 6850 → 6900, 65830 → 65800, 3546 → 3500, 3582 → 3600.