L7   Operations on large numbers

Applying the 4 arithmetic operations with large numbers is an extension of applying them to 4-digit numbers. The following examples will illustrate.

Example 1:
The population of Sundarnagar was 2,35,471 in the year 1991. In the year 2001 it was found to have increased by 72,958. What was the population of Sundarnagar in the year 2001?

Solution 1:
Population in 2001 = Population in 1991 + increase in population.
$$= 2,35,471 + 72,958$$
Now,   2, 35, 471
                   + 72, 958
                   _____
                    3, 08, 429

Salma added the two numbers by writing 2,35,471 as 200000 + 35000 + 471 and 72,958 as 72000 + 958 and she got the same answer as above.

Mary added the two numbers by writing 2,35,471 as 200000 + 35000 + 400+ 71 and 72,958 as 72000 + 900 + 58 and she got the same answer as above.

Answer 1: The population of Sundarnagar in 2001 is 3,08,429. All three methods for addition are correct.

Example 2:
In one state, the number of bicycles sold in 2002-2003 was 7,43,000. In the year 2003-2004, the number of bicycles sold was 8,00,100. In which year were more bicycles sold and by how much?

Solution 2:
Clearly 8,00,100 is greater than 7,43,000. So there were more bicycles sold in 2003-2004. The difference is 8,00,100 – 7,43,000
Now,   8, 00,100
                  - 7, 43,000
                  _____
                    57,100

Example 3:
The town newspaper is published every day. One copy has 24 pages. Everyday 11,980 copies are sold. What is the total number of pages printed every day?

Solution 3:
The total number of pages printed = number of pages per copy x total number of copies
= 24 x 11,980 = 2,86,520

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      1 1 9 8 0
   x         2 4
      4 6 9 2 0
 + 2 3 9 6 x x
 2 8 6 5 2 0
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7.1.1 Solve the following with proper statements and show detailed workings – Use your note book:

a. A book exhibition was held for four days in school. The number of tickets sold on the first, second, third and fourth days respectively were 3286, 1957, 3018, and 5243. Find the total number of tickets sold on all 4 days.

b. Kirti book store sold books worth Rs. 2,85,891 in the first week of June and books worth Rs. 4,00,768 in the second week of the month.
  i. How much was the sale for the 2 weeks altogether?
  ii. In which week was the sale greater and by how much?

c. A machine manufactures 2825 screws a day. How many screws did it produce in the month of January?

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

e. A rose farmer picked 43,236 roses from his farm. He sold them in bunches of 9 roses each. How many bunches did he sell?

End of L7