

Chapter 1: Knowing Our Numbers

Exercise 1.1

Question 1:

Fill in the blanks:

- a) 1 Lakh = _____ Ten thousand
- b) 1 Million = _____ Hundred thousand
- c) 1 Crore = _____ Ten lakh
- d) 1 Crore = _____ Million
- e) 1 Million = _____ Lakh

Answer 1:

- a) 1 Lakh = 10 Ten thousand
1,00,000
- b) 1 Million = 10 Hundred thousand
10,00,000
- c) 1 Crore = 10 Ten lakh
1,00,00,000
- d) 1 Crore = 10 Million
1,00,00,000
- e) 1 Million = 10 Lakh
1,00,00,000

Question 2:

Place commas correctly and write the numerals:

- a) Seventy-three lakh seventy-five thousand three hundred seven.
- b) Nine crore five lakh forty-one.
- c) Seven crore fifty-two lakh twenty-one thousand three hundred two.
- d) Fifty-eight million four hundred twenty-three thousand two hundred two.
- e) Twenty-three lakh thirty thousand ten.

Answer 2:

- a) 73,75,307
- b) 9,05,00,041
- c) 7,52,21,302
- d) 58,423,202
- e) 23,30,010

Question 3:

Insert commas suitable and write the names according to Indian system of numeration:

- a) 87595762
- b) 8546283
- c) 99900046
- d) 98432701

Answer 3:

- a) 8,75,95,762 = Eight crore seventy-five lakh ninety-five thousand seven hundred sixty-two
- b) 85,46,283 = Eight-five lakh forty-six thousand two hundred eighty-three
- c) 9,99,00,046 = Nine crore ninety-nine lakh forty-six
- d) 9,84,32,701 = Nine crore eighty-four lakh thirty-two thousand seven hundred one

Question 4:

Insert commas suitable and write the names according to International system of numeration:

- a) 78921092
- b) 7452283
- c) 99985102
- d) 48049831

Answer 4:

- a) 78,921,092 = Seventy-eight million nine hundred twenty-one thousand ninety-two
- b) 7,452,483 = Seven million four hundred fifty-two thousand two hundred eighty-three
- c) 99,985,102 = Ninety-nine million nine hundred eighty-five thousand one hundred two
- d) 48,049,831 = Forty-eight million forty-nine thousand eight hundred thirty-one

Exercise 1.2

Question 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.

Answer 1:

Number of tickets sold on first day	=	1,094
Number of tickets sold on second day	=	1,812
Number of tickets sold on third day	=	2,050
Number of tickets sold on fourth day	=	<u>+ 2,751</u>
Total tickets sold	=	<u>7,707</u>

Therefore, 7,707 tickets were sold on all the four days.

Question 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?

Answer 2:

Runs to achieve	=	10,000
Runs scored	=	<u>- 6,980</u>
Runs required	=	<u>3,020</u>

Therefore, he needs 3,020 more runs.

Question 3:

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

Answer 3:

Number of votes secured by successful candidates	=	5,77,500
Number of votes secured by his nearest rival	=	<u>- 3,48,700</u>
Margin between them	=	<u>2,28,800</u>

Therefore, the successful candidate won by a margin of 2,28,800 votes.

Question 4:

Kirti Bookstore sold books worth ₹2,85,891 in the first week of 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?

Answer 4:

Books sold in first week = 2,85,891

Books sold in second week = + 4,00,768

Total books sold = 6,86,659

Since, $4,00,768 > 2,85,891$

Therefore sale of second week is greater than that of first week.

Books sold in second week = 4,00,768

Books sold in first week = - 2,85,891

More books sold in second week = 1,14,877

Therefore, 1,14,877 more books were sold in second week.

Question 5:

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

Answer 5:

Greatest five-digit number using digits 6,2,7,4,3 = 76432

Smallest five-digit number using digits 6,2,7,4,3 = - 23467

Difference = 52965

Therefore the difference is 52965.

Question 6:

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

Answer 6:

Number of screws manufactured in one day = 2,825

Number of days in the month of January (31 days) = $2,825 \times 31$

= 87,575

Therefore the machine produced 87,575 screws in the month of January.

Question 7:

A merchant had ₹78,592 with her. She placed an order for purchasing 40 radio sets at ₹1,200 each. How much money will remain with her after the purchase?

Answer 7:

Cost of one radio	=	₹1200
Cost of 40 radios = 1200×40	=	₹48,000
Now, Total money with merchant	=	₹78,592
Money spent by her	=	<u>– ₹48,000</u>
Money left with her	=	<u>₹30,592</u>

Therefore, ₹30,592 will remain with her after the purchase

Question 8:

A student multiplied 7236 by 65 instead of multiplying by 56. By how much was his answer greater than the correct answer?

Answer 8:

Wrong answer = 7236×65

$$\begin{array}{r} 7236 \\ \times 65 \\ \hline 36180 \\ 43416x \\ \hline 470340 \end{array}$$

Correct answer = 7236×56

$$\begin{array}{r} 7236 \\ \times 56 \\ \hline 43416 \\ 36180x \\ \hline 405216 \end{array}$$

Difference in answers = $470340 - 405216$
= 65,124

Question 9:

To stitch a shirt 2 m 15 cm cloth is needed. Out of 40 m cloth, how many shirts can be stitched and how much cloth will remain?

Answer 9:

Cloth required to stitch one shirt = 2 m 15 cm
= $2 \times 100 \text{ cm} + 15 \text{ cm}$
= 215 cm

Length of cloth = 40 m = $40 \times 100 \text{ cm} = 4000 \text{ cm}$

Number of shirts can be stitched = $4000 \div 215$

$$\begin{array}{r} 18 \\ 215 \overline{) 4000} \\ \underline{- 215} \\ 1850 \\ \underline{- 1720} \\ 130 \end{array}$$

Therefore, 18 shirts can be stitched and 130 cm (1 m 30 cm) cloth will remain.

Question 10:

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

Answer 10:

The weight of one box = 4 kg 500 g = 4 x 1000 g + 500 g = 4500 g
 Maximum load can be loaded in van = 800 kg = 800 x 1000 g = 800000 g
 Number of boxes = 800000 ÷ 4500

$$\begin{array}{r}
 177 \\
 4500 \overline{) 800000} \\
 \underline{- 4500} \\
 35000 \\
 \underline{- 31500} \\
 35000 \\
 \underline{- 31500} \\
 3500
 \end{array}$$

Therefore, 177 boxes can be loaded.

Question 11:

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

Answer 11:

Distance between school and home = 1.875 km
 Distance between home and school = + 1.875 km
 Total distance covered in one day = 3.750 km
 Distance covered in six days = 3.750 x 6
 = 22.500 km

Therefore, 22 km 500 m distance covered in six days.

Question 12:

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

Answer 12:

Capacity of curd in a vessel = 4 liters 500 ml = 4 x 1000 ml + 500 ml = 4500 ml
 Capacity of one glass = 25 ml
 Number of glasses can be filled = 4500 ÷ 25

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

Therefore, 180 glasses can be filled by curd.

Exercise 1.3

Question 1:

Estimate each of the following using general rule:

- a) $730 + 998$
- b) $796 - 314$
- c) $12,904 + 2,888$
- d) $28,292 - 21,496$

Answer 1:

- a) 730 round off to 700
 998 round off to $\underline{1000}$
 Estimated sum = $\underline{1700}$
- b) 796 round off to 800
 314 round off to $\underline{300}$
 Estimated sum = $\underline{500}$
- c) 12904 round off to 13000
 2888 round off to $\underline{3000}$
 Estimated sum = $\underline{16000}$
- d) 28292 round off to 28000
 21496 round off to $\underline{21000}$
 Estimated difference = $\underline{7000}$

Question 2:

Give a rough estimate (by rounding off to nearest hundreds) and also a closer estimate (by rounding off to nearest tens):

- a) $439 + 334 + 4317$
- b) $1,08,737 - 47,599$
- c) $8325 - 491$
- d) $4,89,348 - 48,365$

Answer 2:

- a) 439 round off to 400
 334 round off to 300
 4317 round off to $\underline{4300}$
 Estimated sum = $\underline{5000}$

- b) 108734 round off to 108700
 47599 round off to 47600
 Estimated difference = 61100
- c) 8325 round off to 8300
 491 round off to 500
 Estimated difference = 7800
- d) 489348 round off to 489300
 48365 round off to 48400
 Estimated difference = 440900

Question 3:

Estimate the following products using general rule:

- a) 578 x 161
 b) 5281 x 3491
 c) 1291 x 592
 d) 9250 x 29

Answer 3:

- a) 578 x 161
 578 round off to 600
 161 round off to 200
 The estimated product = $600 \times 200 = 1,20,000$
- b) 5281 x 3491
 5281 round of to 5,000
 3491 round off to 3,500
 The estimated product = $5,000 \times 3,500 = 1,75,00,000$
- c) 1291 x 592
 1291 round off to 1300
 592 round off to 600
 The estimated product = $1300 \times 600 = 7,80,000$
- d) 9250 x 29
 9250 round off to 10,000
 229 round off to 30
 The estimated product = $10,000 \times 30 = 3,00,000$