Mathematics

(Chapter – 1) (Knowing Your Numbers)

(Class – VI)

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) 10

(b) 10

(c) 10

(d) 10

(e) 10

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	= + 2,751
Total tickets sold	= 7,707

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	= – 6,980
Runs required	= 3,020

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	= – 3,48,700
Margin between them	= 2,28,800

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 x 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 x 40	= ₹ 48,000

Now,

Total money with merchant	= ₹ 78,592
Money spent by her	= – ₹ 48,000
Money left with her	= ₹ 30,592

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 x 65

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

Correct answer = 7236 x 56

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

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 x 100 cm + 15 cm
= 215 cm

Length of cloth = 40 m = 40 x 100 cm = 4000 cm

Number of shirts can be stitched = 4000 ÷ 215

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

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

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

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. Every day 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 litres 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 litres 500 ml = 4 x 1000 ml + 500 ml = 4500 ml

Capacity of one glass = 25 ml

Number of glasses can be filled = 4500 ÷ 25

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

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 1000
Estimated sum = 1700

(b) 796 round off to 800
314 round off to 300
Estimated sum = 500

(c) 12904 round off to 13000
2888 round off to 3000
Estimated sum = 16000

(d) 28292 round off to 28000
21496 round off to 21000
Estimated difference= 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 4300
Estimated sum = 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 x 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 x 3,500 = 1,75,00,000

(c) 1291 x 592

1291 round off to 1300

592 round off to 600

The estimated product = 1300 x 600 = 7,80,000

(d) 9250 x 29

9250 round off to 10,000

229 round off to 30

The estimated product = 10,000 x 30 = 3,00,000