CLASS VI
MATHEMATICS
CHAPTER 1: KNOWING OUR NUMBERS

SOLUTIONS

Exercise 1.1

1. Fill in the blanks:

(a) 1 lakh = 10 ten thousand.

(b) 1 million = 10 hundred thousand.

(c) 1 crore = 10ten lakh.

(d) 1 crore = 10 million.

(e) 1 million = 10 lakh.

2. Place commas correctly and write the numerals:

(a) Seventy three lakh seventy five thousand three hundred seven.

Ans: 73,75,307

(b) Nine crore five lakh forty one.

Ans: 9,05,00,041

(c) Seven crore fifty two lakh twenty one thousand three hundred two.

Ans: 7,52,21,302

(d) Fifty eight million four hundred twenty three thousand two hundred two.

Ans: 58,423,202

(e) Twenty three lakh thirty thousand ten.

Ans: 23,30,010

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

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

Solutions:

(a) 8,75,95,762 – Eight crore seventy five lakh ninety five thousand seven hundred sixty two

(b) 85,46,283 – Eighty 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

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

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

Solutions:

(a) 78,921,092 – Seventy eight million nine hundred twenty one thousand ninety two

(b) 7,452,283 – 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 thirtyone

LARGE NUMBER IN PRACTICE

10 mm = 1 cm 100 cm = 1 m 1000 m = 1 km	To measure distance
1 g = 1000 mg 1000 g = 1 kg	To measure weight
1000 ml = 1 litre	To measure capacity or volume

Exercise 1.2

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.

Solution:

Number of tickets sold on the 1st day = 1094

Number of tickets sold on the 2nd day = 1812

Number of tickets sold on the 3rd day = 2050

Number of tickets sold on the 4th day = 2751

Therefore total number of tickets sold on all the four days = 1094 + 1812 + 2050 + 2751 = 7707 tickets.

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?

Solution: **10,000 – 6,980 = 3,020**

Therefore 3020 more runs are needed.

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?

Solution: 5,77,500 – 3,48,700 = 2,28,800

Therefore required margin = 2,28,800.

4. Kirti bookstore sold books worth Rs 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?

Solution:

₹ 2,85, 891 -----sale in first week of June

+ ₹ 4,00, 768 ----- sale in second week of June

₹ 6, 86, 659 -----Total sale

And, **₹ 4,00, 768**

– **₹ 2,85, 891**

₹ 1,14, 877

Therefore sale was more in the second week by ₹ 1, 14, 877

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

Solution: **Greatest 5 digit number = 76432**

Least/smallest 5 digit number = 23467 (–)

Therefore, required difference = 52965

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

Solutions: **Number of days in January = 31**

Average number of screws per day = 2825

Therefore, total number of screws in January 2006 = 2825 × 31 = 87,575

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?

Solution:

Cost of 1 radio set = 1200

Cost of 40 radio sets = ₹(1200× 40)

= ₹ 48,000

Therefore the remaining money = ₹ 78,592 – ₹ 48,000 = ₹ 30,592

8. A student multiplied 7236 by 65 instead of multiplying by 56. By how much was his answer greater than the correct answer? (Do you need to do both the multiplications)

Solution: **65 – 56 = 9**

Therefore the required number = 7236 × 9 = 65,124

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?

Solution:

40 m = 40 × 100 cm

= 4000 cm

2m 15 cm = 2×100 cm + 15 cm

= 200 cm + 15 cm

= 215 cm

4000 ÷ 215 gives 18 as quotient and 130 as remainder

∴number of shirts = 18

Remaining cloth = 130 cm = 1 m 30 cm

```
215)40000(18
    215
    1850
    1720
     130
```

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

Solution:

Weight of one box = 4 kg 500 g = 4 × 1000 + 500 = 4500 g

Maximum weight carried by the van = 800 kg = 800 × 1000 = 800000 g

Hence, number of boxes that can be loaded in the van = $\frac{800000}{4500}$ = 177 boxes

```
4500)800000(177
     4500
     35000
     31500
      35000
      31500
       3500
```

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

Solution:

Distance between school and house = 1 km 875 m = (1000 + 875) m = 1875 m

Distance travelled by the student in one day = 2 × 1875 = 3750 m

Distance travelled by the student in 6 days = 3750 m × 6 = 22500 m = 22 km 500 m

∴ Total distance covered by the student in six days is 22 km and 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?

Solution:

Capacity of a vessel = 4 □ 500 ml = 4 × 1000 + 500 = 4500 ml

Capacity of 1 glass = 25 ml

∴ Number of glasses that can be filled with curd = 4500 ÷ 25 = 180

Hence, 180 glasses can be filled with the curd.

Exercise 1.3

1. Estimate each of the following using general rule:

(a) 730 + 998 (b) 796 – 314 (c) 12904 + 2888 (d) 28292 – 21496

Make ten more such examples of addition, subtraction and estimation of their outcome.

Solution:

(a) 730 + 998

= 700 + 1000

= 1700 approximate

(b) 796 – 314

= 800 – 300

= 500 approximate

(c) 12904 + 2888

= 13000 + 3000

= 16000

(d) 28292 – 21496

= 28000 – 21000

= 7000

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) 108734 – 47599 (c) 8325 – 491 (d) 489348 – 48365

Make four more such examples.

Solutions:

439 + 334 + 4317

By rounding off to nearest hundreds

439 + 334 + 4317 = 400 + 300 + 4300= 5000

By rounding off to nearest tens

439 + 334 + 4317 = 440 + 330 + 4320= 5090

b) 108734 – 47599

By rounding off to nearest hundreds

108734 – 47599 = 108700 – 47600= 61100

By rounding off to nearest tens

108734 – 47599 = 108730 – 47600= 61130

c) 8325 – 491

By rounding off to nearest hundreds

8325 – 491 = 8300 – 500 = 7800

By rounding off to nearest tens

8325 – 491 = 8330 – 490 = 7840

(d) 489348 – 48365

By rounding off to nearest hundreds

489348 – 48365 = 489300 – 48400 = 440900

By rounding off to nearest tens

489348 – 48365 = 489350 – 48370 = 440980

3. Estimate the following products using general rule:

(a) 578 × 161

(b) 5281 × 3491

(c) 1291 × 592

(d) 9250 × 29

Make four more such examples.

Solutions:

578 × 161

= 600×200 = 120000

5281 × 3491

=5000 × 3500= 17500000

1291 × 592

=1300 × 600

=780000

9250 × 29

=10000 × 30

=300000

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