NCERT Solutions for Class 6 Chapter 1: Knowing Our Numbers

Exercise 1.1 PAGE NO: 12

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.

Solutions:

(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

= 1,000,000

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.

Solutions:

(a) The numeral of seventy three lakh seventy five thousand three hundred seven is 73,75,307

(b) The numeral of nine crore five lakh forty one is 9,05,00,041

(c) The numeral of seven crore fifty two lakh twenty one thousand three hundred two is 7,52,21,302

(d) The numeral of fifty eight million four hundred twenty three thousand two hundred two is 5,84,23,202

(e) The numeral of twenty three lakh thirty thousand ten is 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) 87595762 – Eight crore seventy five lakh ninety five thousand seven hundred sixty two

(b) 8546283 – Eighty five lakh forty six thousand two hundred eighty three

(c) 99900046 – Nine crore ninety nine lakh forty six

(d) 98432701 – 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) 78921092 – Seventy eight million nine hundred twenty one thousand ninety two

(b) 7452283 – Seven million four hundred fifty-two thousand two hundred eighty three

(c) 99985102 – Ninety-nine million nine hundred eighty five thousand one hundred two

(d) 48049831 – Forty-eight million forty-nine thousand eight hundred thirty-one

Exercise 1.2 PAGE NO: 16

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.

Solutions:

Number of tickets sold on 1st day = 1094

Number of tickets sold on 2nd day = 1812

Number of tickets sold on 3rd day = 2050

Number of tickets sold on 4th day = 2751

Hence, 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?

Solutions:

Shekhar scored = 6980 runs

He want to complete = 10000 runs

Runs need to score more = 10000 – 6980 = 3020

Hence, he need 3020 more runs to score

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?

Solutions:

No. of votes secured by the successful candidate = 577500

No. of votes secured by his rival = 348700

Margin by which he won the election = 577500 – 348700 = 228800 votes

∴ Successful candidate won the election by 228800 votes

4. Kirti bookstore 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. How much was the sale for the two weeks together? In which week was the sale greater and by how much?

Solutions:

Price of books sold in June first week = Rs 285891

Price of books sold in June second week = Rs 400768

No. of books sold in both weeks together = Rs 285891 + Rs 400768 = Rs 686659

The sale of books is the highest in the second week

Difference in the sale in both weeks = Rs 400768 – Rs 285891 = Rs 114877

∴ Sale in second week was greater by Rs 114877 than in the first week.

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.

Solutions:

Digits given are 6, 2, 7, 4, 3

Greatest 5-digit number = 76432

Least 5-digit number = 23467

Difference between the two numbers = 76432 – 23467 = 52965

∴ The difference between the two numbers is 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 screws manufactured in a day = 2825

Since January month has 31 days

Hence, number of screws manufactured in January = 31 × 2825 = 87575

Hence, machine produce 87575 screws in the month of January 2006

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

Solutions:

Total money the merchant had = Rs 78592

Number of radio sets she placed an order for purchasing = 40 radio sets

Cost of each radio set = Rs 1200

So, cost of 40 radio sets = Rs 1200 × 40 = Rs 48000

Money left with the merchant = Rs 78592 – Rs 48000 = Rs 30592

Hence, money left with the merchant after purchasing radio sets is Rs 30592

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

Solutions:

Difference between 65 and 56 i.e (65 – 56) = 9

The difference between the correct and incorrect answer = 7236 × 9 = 65124

Hence, by 65124, the answer was greater than the correct answer

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?

Solutions:

Given

Total length of the cloth = 40 m

= 40 × 100 cm = 4000 cm

Cloth required to stitch one shirt = 2 m 15 cm

= 2 × 100 + 15 cm = 215 cm

Number of shirts that can be stitched out of 4000 cm = 4000 / 215 = 18 shirts

Hence 18 shirts can be stitched out of 40 m and 1m 30 cm of cloth is left out

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?

Solutions:

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 = 800000 / 4500 = 177 boxes

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

Solutions:

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

Since, the student walk both ways.

Hence, 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?

Solutions:

Quantity of curd in the vessel = 4 l 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 glasses

Hence, 180 glasses can be filled with curd.

Exercise 1.3 Page NO: 23

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.

Solutions:

(a) 730 + 998

Round off to hundreds

730 rounds off to 700

998 rounds off to 1000

Hence, 730 + 998 = 700 + 1000 = 1700

(b) 796 – 314

Round off to hundreds

796 rounds off to 800

314 rounds off to 300

Hence, 796 – 314 = 800 – 300 = 500

(c) 12904 + 2888

Round off to thousands

12904 rounds off to 13000

2888 rounds off to 3000

Hence, 12904 + 2888 = 13000 + 3000 = 16000

(d) 28292 – 21496

Round off to thousands

28292 round off to 28000

21496 round off to 21000

Hence, 28292 – 21496 = 28000 – 21000 = 7000

Ten more such examples are

(i) 330 + 280 = 300 + 300 = 600

(ii) 3937 + 5990 = 4000 + 6000 = 10000

(iii) 6392 – 3772 = 6000 – 4000 = 2000

(iv) 5440 – 2972 = 5000 – 3000 = 2000

(v) 2175 + 1206 = 2000 + 1000 = 3000

(vi) 1110 – 1292 = 1000 – 1000 = 0

(vii) 910 + 575 = 900 + 600 = 1500

(viii) 6400 – 4900 = 6000 – 5000 = 1000

(ix) 3731 + 1300 = 4000 + 1000 = 5000

(x) 6485 – 4319 = 6000 – 4000 = 2000

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:

(a) 439 + 334 + 4317

Rounding off to nearest hundreds

439 + 334 + 4317 = 400 + 300 + 4300

= 5000

Rounding off to nearest tens

439 + 334 + 4317 = 440 + 330 + 4320

= 5090

(b) 108734 – 47599

Rounding off to nearest hundreds

108734 – 47599 = 108700 – 47600

= 61100

Rounding off to nearest tens

108734 – 47599 = 108730 – 47600

= 61130

(c) 8325 – 491

Rounding off to nearest hundreds

8325 – 491 = 8300 – 500

= 7800

Rounding off to nearest tens

8325 – 491 = 8330 – 490

= 7840

(d) 489348 – 48365

Rounding off to nearest hundreds

489348 – 48365 = 489300 – 48400

= 440900

Rounding off to nearest tens

489348 – 48365 = 489350 – 48370

= 440980

Four more examples are as follows

(i) 4853 + 662

Rounding off to nearest hundreds

4853 + 662 = 4800 + 700

= 5500

Rounding off to nearest tens

4853 + 662 = 4850 + 660

= 5510

(ii) 775 – 390

Rounding off to nearest hundreds

775 – 390 = 800 – 400

= 400

Rounding off to nearest tens

775 – 390 = 780 – 400

= 380

(iii) 6375 – 2875

Rounding off to nearest hundreds

6375 – 2875 = 6400 – 2900

= 3500

Rounding off to nearest tens

6375 – 2875 = 6380 – 2880

= 3500

(iv) 8246 – 6312

Rounding off to nearest hundreds

8246 – 6312 = 8200 – 6300

= 1900

Rounding off to nearest tens

8246 – 6312 = 8240 – 6310

= 1930

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:

(a) 578 × 161

Rounding off by general rule

578 and 161 rounded off to 600 and 200 respectively

600

× 200

_____

120000

_____

(b) 5281 × 3491

Rounding off by general rule

5281 and 3491 rounded off to 5000 and 3500 respectively

5000

× 3500

_____

17500000

_____

(c) 1291 × 592

Rounding off by general rule

1291 and 592 rounded off to 1300 and 600 respectively

1300

× 600

_____

780000

_____

(d) 9250 × 29

Rounding off by general rule

9250 and 29 rounded off to 9000 and 30 respectively

9000

× 30

_____

270000

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Frequently Asked Questions on NCERT Solutions for Class 6 Maths Chapter 1

What are the topics covered in Chapter 1 of NCERT Solutions for Class 6 Maths?

The topics covered in Chapter 1 of NCERT Solutions for Class 6 Maths are:
1. Introduction to numbers
2. Comparing numbers
3. Ascending order and Descending order
4. How many numbers can be formed using a certain number of digits?
5. Shifting digits
6. Place value
7. Larger Numbers and Estimates
8. Estimating sum or difference
9. Estimating products of numbers
10. BODMAS
11. Using Brackets