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CLASS 6th
MATHS

CHAPTER- 1st

KNOWING OUR NUMBERS

EXERCISE-1.1

NCERT SOLUTION

Question 1. Fill in the blanks:

(a) 1 lakh =10..... Ten thousand.

(b) 1 million =10..... hundred thousand.

(c) 1 crore =10..... ten lakh.

(d) 1 crore =10..... million.

(e) 1 million =10..... lakh.

Question 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.

5, 84, 23, 202

(e) Twenty-three lakh thirty thousand ten.

Ans.

23, 30, 010.

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

(a) 8, 75, 95, 762

Ans.

Eight crore seventy-five lakh ninety-five thousand seven hundred sixty- two.

(b) 85, 46, 283

Ans.

Eighty-five lakh forty-six thousand two hundred eighty-three.

(c) 9, 99, 00, 046

Ans.

Nine crore ninety-nine lakh forty-six.

(d) 9, 84, 32, 701

Ans.

Nine crore eighty-four lakh thirty-two thousand seven hundred one.

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

(a) 78,921,092

Ans.

Seventy-eight million nine hundred twenty-one thousand ninety-two.

(b) 7,452,283

Ans.

Seven million four hundred fifty-two thousand two hundred eighty-three.

(c) 99,985,102

Ans.

Ninety-nine million nine hundred eighty-five thousand one hundred two.

(d) 48,049,831

Ans.

Forty-eight million forty-nine thousand eight hundred thirty-one.

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EXERCISE-1.2

NCERT SOLUTION

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.

Ans:

Number of tickets sold on the first day = 1094

Number of tickets sold on the second day = 1812

Number of tickets sold on the third day = 2050

Number of tickets sold on the final day = 2751

∴ Number of tickets sold on all the four days =

$$1094 + 1812 + 2050 + 2751 = 7,707 \text{ tickets.}$$

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?

Ans:

Shekhar has so far scored = 6980 runs

He wishes to complete = 10,000 runs.

Total runs needed by him = $10,000 - 6980 = 3020$ 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?

Ans:

Number of votes secured by successful candidate = 5, 77,500

Number of votes secured by his rival = 3, 48,700

Margin of votes needed to win the election = $5, 77,500 - 3, 48,700 = 2, 28,800$ votes.

Question 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?

Ans:

Books sold in first week of June = Rs. 2, 85,891

Books sold in second week of the month = Rs. 4, 00,768

Therefore, total sale of books in the two weeks together = $\text{Rs. } 2, 85,891 + \text{Rs. } 4, 00,768 = \text{Rs. } 6, 86,659$

In the second week of the month, the sale of books was greater.

Difference of the sale of books = $\text{Rs. } 4, 00,768 - \text{Rs. } 2, 85,891 =$

$\text{Rs. } 1, 14,877$

Hence, in second week of June, the sale of books was more by =

$\text{Rs. } 1, 14,877.$

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

Ans:

Given digits are 6, 2, 7, 4, and 3

Greatest number = 76432

Least number = 23467

Therefore, Difference = $76432 - 23467 = 52,965$

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?

Ans:

Number of screws manufactured in one day = 2,825 screws.

No. of days in the month of January = 31 days

Number of screws manufactured in month of January =

$31 \times 2825 = 87,575$ screws.

Question 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?

Ans:

Amount of money with the merchant = Rs. 78,592

Number of radio sets = 40

Cost of one radio set = Rs. 1200

Therefore, cost of 40 radio sets = Rs. 1200 x 40 = Rs. 48,000
Remaining money with the merchant = Rs.78,592 – Rs. 48000 =
Rs. 30,592

Hence, amount of Rs. 30,592 will remain with her after purchasing the radio sets.

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

Ans:

Student had multiplied 7236 by 65 instead of multiplying it by 56.

Difference between the two multiplications = $(65 - 56) \times 7236 = 9 \times 7236 = 65124$

Hence, His answer greater than the correct answer by 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?

Ans:

Total length of the cloth = 40 m Or in cm = $40 \times 100 \text{ cm} = 4000 \text{ cm}$.

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

Therefore, number of shirts stitched = $4000 \div 215 = 18\text{m}130\text{cm}$

So, the number of shirts stitched = 18 and the remaining cloth = $130 \text{ cm} = 1 \text{ m } 30 \text{ cm}$

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

Ans:

Weight of one box = 4 kg 500 g (in g) = $4 \times 1000 + 500 = 4500 \text{ g}$

And 800 kg (in g) = $800 \times 1000 = 800000 \text{ g}$

Boxes loaded in the van = $800000 \div 4500 = 177 \text{ boxes}$

Therefore, 177 boxes can only be loaded in the van.

Question 11.

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

Ans:

Distance between school and house = 1 km 875 m (in to m) = $(1000 + 875) \text{ m} = 1875 \text{ m}$.

Distance travelled by the student in both ways =

$$\begin{array}{r} 1875 \\ \times 2 \\ \hline \end{array}$$

=

$$\frac{3750 \text{ m}}{}$$

Distance travelled in 6 days =

$$\begin{array}{r} 3750 \text{ m} \\ \times 6 \\ \hline \end{array}$$

= 22500 m

(In km and m) = 22 km 500 m

Hence, total distance covered in six days = 22 km 500 m.

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?

Ans:

Quantity of curd in a vessel = 4 1 500 ml (in ml) =

$(4 \times 1000 + 500) \text{ ml} = 4500 \text{ ml}$

Capacity of 1 glass = 25 ml

Therefore number of glasses = $4500 \div 25 = 180$ glasses.

EXERCISE-1.3

NCERT SOLUTION

Question 1. Estimate each of the following using general rule:

(a) $730 + 998$

Ans:

Rounded off 730 to nearest hundreds = 700

Rounded off 998 to nearest hundreds = 1,000

$\therefore 730 + 998 = 700 + 1000 = 1700$

(b) $796 - 314$

Ans:

Rounded off 796 to nearest hundreds = 800

Rounded off 314 to nearest hundreds = 300

$\therefore 796 - 314 = 800 - 300 = 500$

(c) $12,904 + 2,888$

Ans:

Rounded off 12,904 to nearest thousands = 13000

Rounded off 2888 to nearest thousands = 3000

$\therefore 12,904 + 2,888 = 13000 + 3000 = 16000$

(d) 28,292 – 21,496

Ans:

Rounded off 28,292 to nearest thousands = 28,000

Rounded off 21,496 to nearest thousands = 21,000

$\therefore 28,292 - 21,496 = 28,000 - 21,000 = 7,000$

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 + 4,317

Ans:

Rough estimate (Rounded off to nearest hundreds)

$439 = 400; 334 = 300; 4317 = 4300$

$439 + 334 + 4,317 = 400 + 300 + 4300 = 5,000$

Closer estimate (Rounded off to nearest tens)

$439 = 440; 334 = 330; 4317 = 4320$

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

(b) 1, 08,734 - 47,599

Ans:

Rough estimate (Rounded off to nearest hundreds)

$1, 08,734 = 1, 08,700; 47,599 = 47,600$

$1, 08,734 - 47,599 = 1, 08,700 - 47,600 = 61,100$

Closer estimate (Rounded off to nearest tens)

$$1, 08, 734 = 108, 730 ; 47,599 = 47,600$$

$$1, 08,734 - 47,599 = 1, 08,730 - 47,600 = 61,130.$$

(c) 8, 325 - 491

Ans:

Rough estimate (Rounded off to nearest hundreds)

$$8325 = 8300; 491 = 500$$

$$8325 - 491 = 8300 - 500 = 7800$$

Closer estimate (Rounded off to nearest tens)

$$8325 = 8330; 491 = 490$$

$$8325 - 491 = 8330 - 490 = 7840.$$

(d) 4, 89,348 - 48,365

Ans:

Rough estimate (Rounded off to nearest hundreds)

$$4, 89,348 = 489,300; 48,365 = 48,400$$

$$4, 89,348 - 48,365 = 4, 89,300 - 48,400 = 4, 40,900$$

Closer estimate (Rounded off to nearest tens)

$$4, 89,348 - 48,365 = 4, 89,350 - 48,370 = 4, 40,980$$

Question 3.

Estimate the following products using general rule:

(a) 578 x 161

Ans:

(Rounded off to nearest hundred)

$$578 = 600; 161 = 200$$

$$578 \times 161 = 600 \times 200 = 1, 20, 000$$

(b) 5281 x 3491

Ans:

(Rounded off to nearest thousand)

$$5281 = 5000; 3491 = 3000$$

$$5281 \times 3491 = 5000 \times 3000 = 1, 50, 00,000$$

(c) 1291 x 592

Ans:

(Rounded off to nearest hundred)

$$1291 = 1300 ; 592 = 600$$

$$1291 \times 592 = 1300 \times 600 = 7, 80,000$$

(d) 9250 x 29

Ans:

$$9250 \text{ (Rounded off to nearest thousand)} = 9000$$

$$29 \text{ (Rounded off to nearest ten)} = 30$$

$$9250 \times 29 = 9000 \times 30 = 2, 70,000$$

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