

Class 6 Maths

Chapter 1 Knowing Our Numbers Ex 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.

Solution :

(a) 1 lakh = ten ten thousand.

(b) 1 million = ten hundred thousand.

(c) 1 crore = ten ten lakh

(d) 1 crore = ten million

(e) 1 million = ten lakh

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 crores 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.

Solution :

- (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 suitably and write the names according to Indian System of Numeration :

(a) 87595762

(b) 8546283

(c) 99900046

(d) 98432701.

Solution :

(a) 8, 75, 95, 762. Eight crores seventy-five lakh ninety-five thousand seven hundred and sixty-two.

(b) 85, 46, 283. Eighty-five lakh forty-six thousand two hundred and eighty-three.

(c) i 9, 99, 00, 046. Nine crore ninety-nine lakh and forty-six.

(d) 9, 84, 32, 701. Nine crore eighty-four lakh thirty-two thousand seven hundred and one.

Question 4.

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

(a) 78921092

(b) 7452283

(c) 99985102

(d) 48049831.

Solution :

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

(b) 7,452,283. Seven million four hundred fifty-two thousand two hundred and eighty-three.

(c) 99,985,102. Ninety-nine million nine hundred eighty-five thousand one hundred and two.

(d) 48,049,831. Forty-eight million forty-nine thousand eight hundred and thirty-one.

Chapter 1 Knowing Our Numbers Ex 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 four days.

Solution :

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

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

Question 2.

Shekhar is a famous cricket player. He has so far scored 6980 runs in test matches. He wishes to complete 10000 runs. How many more runs does he need?

Solution :

Runs scored so far = 6980

Runs wished to be scored = 10000

Runs needed more = $10000 - 6980 = 3020$.

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?

Solution :

Votes registered by the successful candidate = 5,77,500

Votes secured by the nearest rival = 3,48,700

Margin by which the successful candidate won the election = $5,77,500 - 3,48,700 = 2,28,800$.

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?

Solution :

Sale of books in the first week = ₹

2,85,891

Sale of books in the second week = ₹

4,00,768

∴ Sale for the two weeks together = ₹

2,85,891 + ₹ 4,00,768 = ₹ 6,86,659.

The sale was greater in the second week

by ₹ 4,00,768 – ₹ 2,85,891 i.e., by ₹

1,14,877.

Question 5.

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

Sol.

Greatest number that can be written using the digits 6, 2, 7, 4, 3 each only once = 76,432

Least number that can be written using the digits 6, 2, 7, 4, 3 each only once = 23,467

∴ Difference between the greatest and least numbers that can be written using the digits 6,2,7,4, 3 each only once = $76,432 - 23,467 = 52,965$.

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?

Solution :

The number of screws manufactured by the machine a day on an average = 2,825.

Number of days in the month of January 2006 = 31

The number of screws produced by the machine in the month of January 2006 = $2,825 \times 31 = 87,575$.

Question 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?

Sol.

Money which the merchant had = ₹ 78,592

Cost of 40 radio sets at ₹ 1200 each = ₹
 $1200 \times 40 = ₹ 48,000$

Money that will remain with the merchant after the purchase = ₹ 78,592
– ₹ 48,000 = ₹ 30,592.

Question 8.

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

[Hint: Do you need to do both the multiplications?]

Solution :

The wrong answer was greater than the correct answer by

$$= 7236 \times 65 - 7236 \times 56$$

$$= 7236 \times (65 - 56)$$

$$= 7236 \times 9 = 65.124$$

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 ?

[Hint: convert data in cm.]

Solution :

$$2 \text{ m } 15 \text{ cm} = 2 \text{ m} + 15 \text{ cm} = 2 \times 100 \text{ cm} + 15 \text{ cm} = 200 \text{ cm} + 15 \text{ cm} = 215 \text{ cm}$$

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

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

Hence, 18 shirts can be stitched and 130 cm,

i. e., 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 van which cannot carry beyond 800 kg?

Solution :

$$4 \text{ kg } 500 \text{ g} = 4 \text{ kg} + 500 \text{ g}$$

$$= 4 \times 1000 \text{ g} + 500 \text{ g}$$

$$= 4000 \text{ g} + 500 \text{ g}$$

$$= 4500 \text{ g}$$

$$= 800 \times 1000 \text{ g} = 800000 \text{ g}$$

$$\begin{array}{r} 177 \\ 4500 \overline{) 800000} \end{array}$$

$$4500$$

$$\hline 35000$$

$$31500$$

$$\hline 35000$$

$$31500$$

$$\hline 3500$$

Hence, 177 such 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.

Solution :

$$1 \text{ km } 875 \text{ m} = 1 \text{ km} + 875 \text{ m}$$

$$= 1 \times 1000 \text{ m} + 875 \text{ m}$$

$$= 1000 \text{ m} + 875 \text{ m} = 1875 \text{ m}$$

Distance covered by her in a day in walking both ways between school and home = $1875 \times 2 \text{ m} = 3750 \text{ m}$

\therefore Total distance covered by her in six days in walking both ways between school and home = $3750 \text{ m} \times 6 = 22500 \text{ m}$

$$\begin{aligned} &= 22000 \text{ m} + 500 \text{ m} = \frac{22000}{1000} \text{ km} + 500 \text{ m} \\ &= 22 \text{ km} + 500 \text{ m} = 22 \text{ km } 500 \text{ m}. \end{aligned}$$

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?

Solution :

$$4\text{ l } 500\text{ ml} = 4\text{ l} + 500\text{ ml}$$

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

$$= 4000\text{ ml} + 500\text{ ml} = 4500\text{ ml}$$

$$\begin{array}{r} 180 \\ 25 \overline{) 4500} \end{array}$$

$$\begin{array}{r} 25 \\ \hline \end{array}$$

$$\begin{array}{r} 200 \\ \hline \end{array}$$

$$\begin{array}{r} 200 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \hline \end{array}$$

Hence, it can be filled in 180 glasses.

Chapter 1 Knowing Our Numbers Ex 1.3

Question 1.

Estimate each of the following using general rule:

(a) $730 + 998$

(b) $796 - 314$

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

(d) $28,292 - 21,496$

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

Solution :

(a) $730 + 998 = 700 + 1000 = 1700$

(b) $796 - 314 = 800 - 300 = 500$

(c) $12,904 + 2,888 = 13,000 + 3,000 = 16,000$

(d) $28,292 - 21,496 = 28,000 - 21,000 = 7,000$

Question 2.

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

(a) $439 + 334 + 4,317$

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

(c) $8,325 - 491$

(d) $4,89,348 - 48,365$ Make four more such examples.

Solution :

(a)

- Rough estimate (Rounding off to nearest hundreds)

$$439 + 334 + 4317$$

$$= 400 + 300 + 4,300 = 5000$$

- Closer estimate (Rounding off to nearest tens)

$$439 + 334 + 4317$$

$$= 440 + 330 + 4,320 = 5,090.$$

(b)

- Rough estimate (Rounding off to nearest hundreds) $1,08,734 - 47,599$
 $= 1,08,700 - 47,600 = 61,100$
- Closer estimate (Rounding off to nearest tens) $1,08,734 - 47,599$
 $= 1,08,730 - 47,600 = 61,130.$

(c)

- Rough estimate (Rounding off to nearest hundreds) $8325 - 491$
 $= 8300 - 500 = 7800$
- Closer estimate (Rounding off to nearest tens)
 $8325 - 491$
 $= 8330 - 490 = 7840.$

(d)

- Rough estimate (Rounding off to nearest hundreds)

$$4,89,348 - 48,365$$

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

- Closer estimate (Rounding off to nearest tens)

$$4,89,348 - 48,365$$

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

Question 3.

Estimate the following products using the general rule:

(a) 578×161

(b) 5281×3491

(c) 1291×592

(d) 9250×29

Make four more such examples.

Solution :

(a) 578×161

Estimated product = $600 \times 200 =$
 $1,20,000$

(b) 5281×3491

Estimated product = $5000 \times 3500 =$
 $1,75,00,000$

(c) 1291×592

Estimated product = $1300 \times 600 =$
 $7,80,000$

(d) 9250×29

Estimated product = $10000 \times 30 =$
 $3,00,000$