

Knowing Our Numbers

Exercise 1.1

Question: 1

Write each of the following in numeral form :

- i) Eight thousand twelve
- ii) Seventy thousand fifty-three
- iii) Five lakh seven thousand four hundred six
- iv) Six lakh tow thousand nine
- v) Thirty lakh eleven thousand one
- vi) Eight crore four lakh twenty-five.
- vii) Three crore three thousand three hundred three
- viii) Seventeen crores sixty lakh thirty thousand fifty-seven.

Solution:

- i) 8,012
- ii) 70,053
- iii) 5,07,406
- iv) 6,02,009
- v) 30,11,001
- vi) 8,04,00,025
- vii) 3,03,03,303
- viii) 17,60,30,057

Question: 2

Write the following numbers in words in the Indian system of numeration.

- i) 42,007
- ii) 4,05,045

- iii) 35,42,012
- iv) 7,06,04,014
- v) 25,05,05,500
- vi) 5,50,50,050
- vii) 5,03,04,012

Solution:

- i) Forty two thousand seven.
- ii) Four lakh five thousand forty five.
- iii) Thirty five lakh forty two thousand twelve.
- iv) Seven crore six lakh four thousand fourteen.
- v) Twenty five crore five lakh five thousand five hundred.
- vi) Five crore fifty lakh fifty thousand fifty.
- vii) Five crore three lakh four thousand twelve.

Question: 3

Insert commas in the correct positions to separate periods and write the following numbers in words:

- i) 4375
- ii) 24798
- iii) 857367
- iv) 9050784
- v) 10105607
- vi) 10000007
- vii) 910107104

Solution:

- i) 4,357
- ii) 24,798
- iii) 8,57,367

- iv) 90,50,784
- v) 1,01,05,607
- vi) 1,00,00,007
- vii) 91,01,07,104

Question: 4

Write each of the following in expanded form:

- i) 3057
- ii) 12345
- iii) 10205
- iv) 235060

Solution:

- i) $3000 + 50 + 7$
- ii) $10000 + 2000 + 300 + 40 + 5$
- iii) $10000 + 200 + 5$
- iv) $200000 + 30000 + 5000 + 60$

Question: 5

Write the corresponding numeral for each of the following :

- i) $7 \times 10000 + 2 \times 1000 + 5 \times 100 + 9 \times 10 + 6 \times 1$
- ii) $4 \times 100000 + 5 \times 1000 + 1 \times 100 + 7 \times 1$
- iii) $8 \times 1000000 + 3 \times 1000 + 6 \times 1$
- iv) $5 \times 10000000 + 7 \times 1000000 + 8 \times 1000 + 9 \times 10 + 4$

Solution:

- i) $70000 + 2000 + 500 + 90 + 6 = 72,596$
- ii) $400000 + 5000 + 100 + 7 = 4,05,107$
- iii) $8000000 + 3000 + 6 = 80,03,006$
- iv) $50000000 + 7000000 + 8000 + 90 + 4 = 5,70,08,094$

Question: 6

Find the place value of the digit 4 in each of the following:

i) 74983160

ii) 8745836

Solution:

i) Place value of 4 = $4 \times 10,00,00 = 40,00,00$

ii) Place value of 4 = $4 \times 10,000 = 40,000$

Question: 7

Determine the product of the place values of two fives in 450758.

Solution:

Place value of first 5 = $5 \times 10 = 50$

Place value of second 5 = $5 \times 10,000 = 50,000$

Required product = $50 \times 50,000 = 25,00,000$

Question: 8

Determine the difference of the place values of 7's in 257839705.

Solution:

Place value of first 7 = $7 \times 10 = 700$

Place value of second 7 = $7 \times 10,000 = 70,00,000$

Required difference = $70,00,000 - 700 = 69,99,300$

Question: 9

Determine the difference between the place value and the face value of 5 in 78654321.

Solution:

The number = 7, 86, 54, 321

The place value of 5 = 5 ten thousands = 50,000

The face value of 5 = 5

Therefore, the difference = $50,000 - 5 = 49,995$

Question: 10

Which digits have the same face value and place value in 92078634?

Solution:

The place value of a digit depends on the place where it occurs, while the face value is the value of the digit itself.

In a number, the digits that have same face value and place value are the ones digit and all the zeroes of the number.

Therefore, in 9, 20, 78,634, 4 (the ones digit) and 0 (the lakhs digit) have the same face value and place value

Question: 11

How many different 3- digit numbers can be formed by using the digits 0, 2, 5 without repeating any digit in the number?

Solution:

The three-digit numbers formed using the digits 0, 2 and 5 (without repeating any digit in the number) are 250 , 205 , 502 and 520.

Therefore, four such numbers can be formed.

Question: 12

Write all possible 3- digit numbers using 6, 0, 4 when

- i) Repetition of digits is not allowed
- ii) Repetition of digits is allowed

Solution:

i) 604, 640, 460, 406

ii) 666, 664, 646, 660, 606, 600, 644, 640, 604, 444, 466, 440, 446, 464, 400, 404, 406, 460

Question: 13

Fill in the blanks:

- i) 1 Iakh = — ten thousand
- ii) 1 Iakh = — thousand
- iii) 1 Iakh = — hundred
- iv) 1 Iakh = — ten
- v) 1 crore = — ten Iakh
- vi) 1 crore = — Iakh
- vii) 1 crore = — ten thousand
- viii) 1 crore = — thousand
- ix) 1 crore = — hundred
- x) 1 crore = — ten

Solution:

- i) 1 Iakh = 10 ten thousand
- ii) 1 Iakh = 100 thousand
- iii) 1 Iakh = 1000 hundred
- iv) 1 Iakh = 10000 ten
- v) 1 crore = 10 ten Iakh
- vi) 1 crore = 100 Iakh
- vii) 1 crore = 1000 ten thousand
- viii) 1 crore = 10000 thousand
- ix) 1 crore = 100000 hundred
- x) 1 crore = 1000000 ten

Exercise 1.2

Question: 1

Write each of the following numbers in digits by using international place value chart. Also, write them in expanded form.

i) Seven million three hundred three thousand two hundred six

ii) Fifty five million twenty nine thousand seven

iii) Six billion one hundred ten million three thousand seven

Solution:

i) 7,303,206

Expanded form = $7 \times 1000000 + 3 \times 100000 + 0 \times 10000 + 3 \times 1000 + 2 \times 100 + 0 \times 10 + 6 \times 1$

ii) 55,029,007

Expanded form = $5 \times 10000000 + 5 \times 1000000 + 0 \times 100000 + 2 \times 10000 + 9 \times 1000 + 0 \times 100 + 0 \times 10 + 7 \times 1$

iii) 6,110,003,007

Expanded form = $6 \times 1000000000 + 1 \times 100000000 + 1 \times 10000000 + 0 \times 1000000 + 0 \times 100000 + 0 \times 10000 + 3 \times 1000 + 0 \times 100 + 0 \times 10 + 7 \times 1$

Question: 2

Rewrite each of the following numerals with proper commas in the international system of numeration

i) 513625

ii) 4035672

iii) 65954923

iv) 70902005

Solution:

i) 513,625 or Five hundred thirteen thousand six hundred twenty five.

ii) 4,035,672 or Four million thirty five thousand six hundred seventy two.

iii) 65,954,923 or Sixty five million nine hundred fifty four thousand nine hundred twenty three

(iv) 70,902,005 or Seventy million nine hundred two thousand five

Question: 3

Write each of the following numbers in the international system of numeration :

i) Forty three lakh four thousand eighty four.

ii) Six crore thirty four lakh four thousand forty four.

iii) Seven lakh thirty five thousand eight hundred ninety nine only.

Solution:

i) 4,304,084 or Four million three hundred four thousand eighty four.

ii) 63,404,044 or Sixty three million four hundred four thousand forty four.

iii) 735,899 or Seven hundred thirty five thousand eight hundred ninety nine.

Question: 4

Write the following numbers in the Indian system of numeration :

i) Six million five hundred forty three thousand two hundred ten.

ii) Seventy six million eighty five thousand nine hundred eighty seven

iii) Three hundred twenty five million four hundred seventy nine thousand eight hundred thirty eight.

Solution:

i) 65, 43,210 or Sixty five lakh forty three thousand two hundred ten.

ii) 7, 60,85,987 or Seven crore sixty lakh eighty five thousand nine hundred eighty seven.

iii) 32, 54,79,838 or Thirty two crore fifty four lakh seventy nine thousand eight hundred thirty eight.

Question: 5

A certain nine digit number has only ones in ones period, only twos in the thousands period and only threes in millions period. Write this number in words in the Indian system.

Solution:

The number is 333,222,111

In Indian system , the number is written as 33,32,22,111 thirty – three crore thirty – two lakh twenty thousand one hundred and eleven.

Question: 6

How many thousands make a million?

Solution:

1,000 thousands makes a million

Question: 7

How many millions make a billion?

Solution:

1,000 millions make a billion

Question: 8

- i) How many lakhs make a million?
- ii) How many lakhs make billion?

Solution:

- i) Ten lakhs make a million
- ii) Ten thousand lakhs make a billion

Question: 9

Write each of the following in numerical form:

- i) Ninety-Eight million seven hundred eight thousand four.
- ii) Six hundred seven million twelve thousand eighty four.
- iii) Four billion twenty five million forty five thousand.

Solution:

- i) 98,708,004

ii) 607,012,084

iii) 4,025,045,000

Question: 10

Write the number names of each of the following in international system of numeration :

i) 435,002

ii) 1,047,509

iii) 59,064,523

iv) 25,201,905

Solution:

i) Four hundred thirty-five thousand and two

ii) One million, forty-seven thousand, five hundred and nine

iii) Fifty-nine million, sixty-four thousand, five hundred and twenty-three

iv) Twenty-five million, two hundred one thousand, nine hundred and five

Exercise 1.3

Question: 1

How many four – digit numbers are there in all?

Solution:

There are 10 digits i.e., 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

We cannot use '0' at thousand's place.

So, we can use only 9 digits at thousand's place.

Also, we can use 10 digits at hundred's, 10 digits at ten's and 10 digits at unit's place.

So, total numbers of four-digit numbers = $9 \times 10 \times 10 \times 10 = 9000$

Question: 2

Write the smallest and the largest six digit numbers. How many numbers are between these two.

Solution:

The smallest digit is 0. But we cannot use 0 at the place having the highest place value in six digit numbers. So, we will use the second smallest digit i.e., 1. All other places are filled by 9.

Hence, the required number = 100000

Smallest six digit number will be 100000.

The largest digit is 9.

We can use 9 at any place. In fact , we can use 9 in all places in six digit numbers.

Hence, the required number = 999999

Largest six digit number will be 999999

Required difference = $999999 - 100000 = 899999$

So, the total numbers between 999999 and 100000 will be 899998.

Question: 3

How many 8 – digit numbers are there in all ?

Solution:

There are 10 digits i.e., 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

We cannot use '0' at the place having the highest place value in 8 digit numbers.

So, we can use only 9 digits at the place having the highest place value in 8 digit numbers.

Also, we can use 10 digits at the remaining places in 8 digit numbers So, total numbers of 8-digit numbers = $9 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 = 90000000$

Question: 4

Write 10075302 in words and rearrange the digits to get the smallest and the largest numbers.

Solution:

One crore seventy-five thousand three hundred two.

In order to write the smallest 8-digit number using digits 0, 1, 2, 3, 5 and 7, we put the smallest digit 1 (Except 0) at the place having the highest place value. The largest digit 7 is put at the rightmost place i.e. at unit's place, the digit 5 is put at the ten's place, the digit 3 is put at the hundred's place and the digit 2 is put at the thousand's place. All other places are filled by 0. Hence, the required largest number is 10002357.

In order to write the largest 8-digit number using digits 0, 1, 2, 3, 5 and 7, we put the largest digit 7 at the place having the highest place value. The smallest digit 5 is put at the place after the highest place value. We put the next smallest digit (i.e., 3) after the previous one. After it we place the next smallest digit (i.e., 2) and after that we put the digit 1. All other places are filled by 0. Hence, the required largest number is 75321000.

Question: 5

What is smallest 3-digit number with unique digits?

Solution:

The smallest three-digit number with unique digits is 102.

Question: 6

What is the largest 5- digits number with unique digits?

Solution:

The largest five – digit number with unique digits 98,765.

Question: 7

Write is smallest 3-digit number which does not change if the digits are written in reverse order.

Solution:

The smallest three – digit number that does not change if the digits are written in reverse order is 101.

Question: 8

Find the difference between the number 279 and that obtained on reversing its digits.

Solution:

The number obtained on reversing 279 = 972

Difference = $972 - 279 = 693$

Thus, the difference between 279 and that obtained on reversing its digits is 693.

Question: 9

Form the largest and smallest 4- digit numbers using each of digits 7,1,0,5 only once.

Solution:

The largest and smallest four- digit numbers formed using 7,1,0 and 5 are 7,510 and 1,057.

Exercise 1.4

Question: 1

Put the appropriate symbol ($<$ $>$) in each of the following boxes :

- i) 102394 ____ 99887
- ii) 2507324 ____ 2517324
- iii) 3572014 ____ 10253104
- iv) 47983505 ____ 47894012

Solution:

- i) 102394 $>$ 99887
- ii) 2507324 $<$ 2517324
- iii) 3572014 $<$ 10253104
- iv) 47983505 $>$ 47894012

Question: 2

Arrange the following numbers in ascending order :

- i) 6,35,47,201, 10,23,45,694 , 65,39,542 , 83,54,208 , 1,23,45,678
- ii) 18,08,088, 1,81,888, 1,90,909, 18,08,090, 1,60,60,666

Solution:

- i) 65,39,542, 83,54,208, 1,23,45,678, 6,35,47,201, 10,23,45,694
- ii) 1,81,888, 1,90,909, 18,08,088, 18,08,090, 1,60,60,666

Question: 3

Arrange the following numbers in descending order :

- i) 05,69,44,000, 5,69,43,201 , , 56,95,440, 5,69,43,300, 56,94,437
- ii) 10,20,216, 10,20,308 , 10,21,430, 8,93,425, 8,93,245

Solution:

- i) 5,69,44,000, 5,69,43,300, 5,69,43,201, 56,95,440, 56,94,437
- ii) 10,21,430, 10,20,308, 10,20,216, 8,93,425, 8,93,245

Exercise 1.5

Question: 1

How many milligrams make one kilogram?

Solution:

Ten lakh or one million (10, 00, 000) milligrams make one kilogram.

Question: 2

A box of medicine tablets contains 2, 00,000 tablets each weighing 20mg. what is the total weight of all the tablets in the box in grams? in kilograms ?

Solution:

Given data: Each tablet weighs = 20 mg

Therefore, The weight of 2, 00,000 tablets = $2, 00,000 \times 20 = 40, 00,000$ mg

Therefore, The total weight of all the tablets in the box = 40, 00,000 mg

We know $1 \text{ g} = 1,000 \text{ mg}$

Weight of the box having all tablets = $40,00,000 \div 1,000 = 4000\text{g}$

And, as $1 \text{ kg} = 1,000 \text{ g}$

Therefore, Weight of the box having all tablets = $4,000 \div 1,000 = 4000\text{g} = 4 \text{ kg}$

Question: 3

Population of sundarnagar was 2, 35,471 in the year 1991. In the year 2001 it was found to have increased by 72,958. What was the population of the city in 2001?

Solution:

The population of Sundar Nagar in 2001 = Sum of the population of city in 1991 + Increase in population over the given time period

As given in the question, The population of Sundar Nagar in 1991 = 2, 35,471

As given in the question,

Increase in population over the given time period = 72.958

Therefore, The population of Sundar Nagar in 2001

$$= 2, 35,471 + 72,958 = 3, 08,429$$

Question: 4

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 days were respectively 1094, 1812, 2050 and 2751. Find the total number of tickets sold on all the four days.

Solution:

Total number of tickets sold on all four days is the sum of the tickets sold on the first, second, third and final days.

Therefore, total number of tickets sold on all four days is given by:

$$= 1094 + 1812 + 2050 + 2751 = 7707$$

Question: 5

The town newspaper is published every day. One copy has 12 pages. Everyday 11,980 copies are printed. How many pages are in all printed every day? Every month?

Solution:

As given in the question,

Number of pages in 1 copy of newspaper = 12

Therefore, Number of pages in 11,980 copies of newspaper

$$= 11,980 \times 12 = 1, 43,760$$

Thus, 1, 43,760 pages are printed every day.

Now, number of pages printed every day = 1, 43,760

Therefore, Number of pages printed in a month = $1, 43,760 \times 30 = 43, 12,800$

Thus, 43, 12,800 pages are printed in a month.

Question: 6

A machine, on an average, manufactures 2825 screws a day. How many screws did it produce in the month of January 2006?

Solution:

As given in the question,

Number of screws produced by a machine in a day = 2,825

Therefore, Number of screws produced by the same machine in the month of January 2006 = $2,825 \times 31 = 87,575$

Thus, machine-produced 87,575 screws in the month of January 2006.

Question: 7

A famous cricket player has so far scored 6978 runs in test matches. He wishes to complete 10,000 runs. How many more runs does he need?

Solution:

Runs scored by cricket player in test matches = 6,978

Therefore, Remaining runs required to complete 10,000 runs

$$= 10,000 - 6,978 = 3,022$$

Thus, the player needs to score 3,022 more runs to complete 10,000 runs.

Question: 8

Ravish has Rs. 78,592 with him. He placed an order for purchasing 39 radio sets at Rs. 1234 each. How much money will remain with him after the purchase?

Solution:

Ravish's initial money = Rs. 78,592

He purchased 39 radio sets at Rs. 1,234 each.

Therefore, Money spent by him on purchasing 39 radio sets

$$= 1,234 \times 39 = \text{Rs. } 48,126$$

Therefore, Remaining money with Ravish after the purchase = Initial money – Money spent on purchasing 39 radio sets = Rs. 78,592 – Rs. 48,126 = Rs. 30,466

Thus, 30,466 are left with him after the purchase.

Question: 9

In an election, the successful candidate registered 5,77,570 votes and his nearest rival secured 3,48,685 votes. By what margin did the successful

candidate win the election?

Solution:

Margin of victory in the election for the successful candidate = Number of votes registered by the winner – Number of votes secured by nearest rival candidate

Votes registered by the winner = 5, 77,570

Votes secured by the rival = 3, 48,685

Therefore, Margin of victory for the successful candidate

$$= 5, 77, 570 - 3, 48, 685 = 2, 28, 885$$

Question: 10

To stitch a shirt 2m 15 cm cloth is needed. Out of 40 m cloth, how many shirts can be stitched and how much cloth will remain?

Solution:

As given in the question, Total length of available cloth = 40 m = 4,000 cm (1 m = 100 cm)

As given in the question, Length of cloth required to stitch a shirt

$$= 215 \text{ cm} = 200 + 15 = 215 \text{ cm}$$

Therefore, The number of shirts that can be stitched from the 40-metre cloth

$$= 4,000 / 215 = 18.60$$

As the number of shirts has to be a whole number, we consider the whole part only. That is, 18 such shirts can be stitched.

Therefore, Cloth required for stitching 18 shirts = $215 \times 18 = 3870$ cm.

Therefore, Remaining cloth = $4,000 - 3870 = 130$ cm = 1.3 m

Question: 11

A vessel has 4 litre and 650 ml of curd. In how many glasses, each of 25 ml capacity, can it be distributed?

Solution:

The number of glasses in which curd can be distributed = Total amount of curd / Capacity of each glass.

Total amount of curd in the vessel = $4,650 \text{ ml} = 4,000 + 650 = 4,650 \text{ ml}$

($1 \text{ L} = 1,000 \text{ ml}$)

Capacity of each glass = 25 ml

Therefore, Number of glasses in which curd can be distributed = $4,650/25 = 186$

Question: 12

Medicine is packed in boxes, each such box weighing $4 \text{ kg } 500 \text{ g}$. How many such boxes can be loaded in a van which cannot carry beyond 800 Kg ?

Solution:

Sol :

As given in the question,

Total capacity of a van carrying boxes of medicines = $800 \text{ kg} = 8,00,000 \text{ g}$ ($1 \text{ kg} = 1,000 \text{ g}$)

As given in the question, Weight of each packed box

= $4,500 \text{ g} = 4,000 + 500 = 4,500 \text{ g}$

Therefore, Total number of boxes that can be loaded in the van

= $8,00,000 / 4,500 = 177.77$

The obtained number of boxes is not a whole number.

Therefore, Weight of 177 boxes = $177 \times 4,500 = 7,96,500 \text{ g}$ (under permissible limit)

Therefore, Weight of 178 boxes = $178 \times 4,500 = 8,01,000 \text{ g}$ (beyond permissible limit)

Therefore, we can't load 178 boxes; hence, we can say that 177 boxes can be loaded in the van.

Question: 13

The Distance between the school and the house of a student is $1 \text{ Km } 875 \text{ m}$. Every day she walks both ways between her school and home. Find the total distance covered by her in a week?

Solution:

Therefore, Distance between the school and the house of a student

$$= 1,875 \text{ m} = 1,000 + 875 = 1,875 \text{ m} (1 \text{ km} = 1,000 \text{ m})$$

As given in the question, Distance covered by a student in a day

$$= 2 \times 1,875 = 3,750 \text{ m}$$

$$\text{Total distance covered by her in a week} = 7 \times 3,750 = 26,250 \text{ m} = 26.25 \text{ km}$$

Exercise 1.6

Question: 1

Round off each of the following numbers to nearest tens :

- i) 84
- ii) 98
- iii) 984
- iv) 808
- v) 998
- vi) 12,096
- vii) 10,908
- viii) 28,925

Solution:

- i) 80
- ii) 100
- iii) 980
- iv) 810
- v) 1,000
- vi) 12,100
- vii) 10,910
- viii) 28,930

Question: 2

Round off each of the following numbers to nearest hundreds :

- i) 3,985
- ii) 7289
- iii) 8074

- iv) 14,627
- v) 28,826
- vi) 4,20,387
- vii) 43,68,973
- viii) 7,42,898

Solution:

- i) 4,000
- ii) 7,300
- iii) 8,100
- iv) 14,600
- v) 28,800
- vi) 4,20,400
- vii) 43,69,000
- viii) 7,42,900

Question: 3

Round off each of the numbers to nearest thousands :

- i) 2401
- ii) 9600
- iii) 4278
- iv) 7832
- v) 9567
- vi) 26,019
- vii) 20,963
- viii) 4,36,952

Solution:

- i) 2000

- ii) 10000
- iii) 4000
- iv) 8000
- v) 10000
- vi) 26000
- vii) 21000
- viii) 4,37,000

Question: 4

Round off each of the following numbers to nearest tens, hundreds and thousands.

- i) 964
- ii) 1049
- iii) 45,634
- iv) 79,085

Solution:

Tens :

- i) 970
- ii) 1050
- iii) 45,630
- iv) 79,090

Hundreds :

- i) 1000
- ii) 1000
- iii) 45,600
- iv) 79,100

Thousands :

- i) 1000
- ii) 1000
- iii) 46000
- iv) 79000

Question: 5

Round off the following measures to the nearest hundreds :

- i) Rs 666
- ii) Rs 850
- iii) Rs 3,428
- iv) Rs 9,080
- v) 1265 km
- vi) 417 m
- vii) 550 cm
- viii) 2486 m
- ix) 360 gm
- x) 940 kg
- xi) 273 l
- xii) 820 mg

Solution:

- i) Rs. 700
- ii) Rs. 900
- iii) Rs. 3,500
- iv) Rs.9100
- v) 1300 km
- vi) 400 m
- vii) 600 cm

viii) 2500 m

ix) 400 gm

x) 900 kg

xi) 300 l

xii) 800 mg

Question: 6

List all numbers which are rounded off to the nearest ten as 370.

Solution:

365 , 366 , 367 , 368 , 369 , 370 , 371 , 372 , 373 , 374

Question: 7

Find the smallest and the greatest numbers which are rounded off to the nearest hundreds as 900.

Solution:

Smallest number: 850

Greatest number: 949

Question: 8

Find the smallest and the greatest numbers which are rounded off to the nearest thousands as 9000.

Solution:

Smallest number: 8,500

Greatest number: 9,499

Exercise 1.7

Question: 1

Estimate the following by rounding off each factor to nearest hundreds:

i) $730 + 998$

ii) $796 - 314$

iii) $875 - 384$

Solution:

i) $700 + 1000 = 1700$

ii) $800 - 300 = 500$

iii) $900 - 400 = 500$

Question: 2

Estimate the following by rounding off each factor to nearest thousands:

i) $12904 + 2888$

ii) $28292 - 21496$

Solution:

i) $13000 + 3000 = 16000$

ii) $28000 - 21000 = 7000$

Question: 3

Estimate the following by rounding off each number to its greatest place:

i) $439 + 334 + 4317$

ii) $8325 - 491$

iii) $108734 - 47599$

iv) 898×785

v) 9×795

vi) 87×317

Solution:

i) $400 + 300 + 4000 = 4700$

ii) $8000 - 500 = 7500$

iii) $100000 - 500000 = 50000$

iv) $900 \times 800 = 720000$

v) $10 \times 800 = 8000$

vi) $90 \times 300 = 27000$

Question: 4

Find the estimated quotient for each of the following by rounding off each number to its greatest place :

i) $878 \div 28$

ii) $745 \div 24$

iii) $4489 \div 394$

Solution:

i) $900 \div 30 = 30$

ii) $700 \div 20 = 35$

iii) $4000 \div 400 = 10$

Question: 5

Write the expression for each of the following statements using brackets:

i) Four multiplied by the sum of 13 and 7

ii) Eight multiplied by the difference of four from nine.

iii) Divide the difference of twenty eight and seven by 3.

The sum of 3 and 7 is multiplied by the difference of twelve and eight.

Solution:

i) $4 \times (13 + 7)$

ii) $8 \times (9 - 4)$

iii) $28 - 73$

iv) $(3 + 7) \times (12 - 8)$

Question: 6

Simplify each of the following:

i) $124 - (12 - 2) \times 9$

ii) $(13 + 7) \times (9 - 4) - 18$

iii) $210 - (14 - 4) \times (18 + 2) - 10$

Solution:

i) 34

ii) 82

iii) 0

Question: 7

Simplify each of the following:

i) 7×109

ii) 6×112

iii) 9×105

iv) 17×109

v) 16×108

vi) 12×105

vii) 102×103

viii) 101×105

ix) 109×107

Solution:

- i) 763
- ii) 672
- iii) 945
- iv) 1853
- v) 1728
- vi) 1260
- vii) 10506
- viii) 10605
- ix) 11663

Question: 8

Write the roman – numerals for each of the following:

- i) 33
- ii) 48
- iii) 76
- iv) 95

Solution:

- i) XXXIII
- ii) XLVIII
- iii) LXXVI
- iv) XCV

Question: 9

Write the following in roman numerals:

- i) 154
- ii) 173
- iii) 248

iv) 319

Solution:

i) CLIV

ii) CLXXIII

iii) CCXLVIII

iv) CCCXIX

Question: 10

Write the following in roman numerals:

i) 1008

ii) 2718

iii) 3906

iv) 3794

Solution:

i) KVIII

ii) KKDCCXVIII

iii) KKKCKVI

iv) KKKDCCXCIV

Question: 11

Write the following in roman numerals:

i) 4201

ii) 10009

iii) 44000

iv) 25819

Solution:

- i) $\overline{\text{IV}}\text{CCI}$
- ii) $\overline{\text{XIX}}$
- iii) $\text{XL}\overline{\text{IV}}$
- iv) $\text{XX}\overline{\text{V}}\text{DCCCXIX}$

Question: 12

Write the following in Hindu – Arabic numerical:

- i) XXVI
- ii) XXIX
- iii) LXXII
- iv) XCI

Solution:

- i) 26
- ii) 29
- iii) 72
- iv) 91

Question: 13

Write the corresponding Hindu – Arabic numerical for each of the following:

- i) CIX
- ii) CLXXII
- iii) CCLIV
- iv) CCCXXIX

Solution:

- i) 109
- ii) 172
- iii) 254
- iv) 329

Question: 14

Write the corresponding Hindu – Arabic numerical for each of the following:

- i) KXIX
- ii) KDLXV
- iii) KKCXXIII
- iv) KKKDCXL

Solution:

- i) 1019
- ii) 1565
- iii) 2123
- iv) 3640

Question: 15

Write the following in Hindu – Arabic numerical:

- i) $\overline{\text{IV}}\text{CDXLIV}$
- ii) $\overline{\text{V}}\text{ICKXLIX}$
- iii) $\overline{\text{IX}}\text{CCCXCI}$
- iv) $\text{L}\overline{\text{XXIX}}$

Solution:

- i) 4444
- ii) 6949
- iii) 9391
- iv) 70009

Question: 16

Which of the following is meaningless?

- i) $\overline{\text{II}}\text{ICC} <$

ii) KKKCCXI

iii) XD

iv) VC

Solution:

(i) and (iii) are meaningless.