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 x 10000 + 2 x 1000 + 5 x 100 + 9 x 10 + 6 x 1

ii) 4 x 100000 + 5 x 1000 + 1 x 100 + 7 x 1

iii) 8 x 1000000 + 3 x 1000 + 6 x 1

iv) 5 x 10000000 + 7 x 1000000 + 8 x 1000 + 9 x 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 × 10,00,00 = 40,00,00

ii) Place value of 4 = 4 × 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 × 10 = 50

Place value of second 5 = 5 × 10,000 = 50,000

Required product = 50 × 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 × 10 = 700

Place value of second 7 = 7 × 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 lakh = —— ten thousand

ii) 1 lakh = —— thousand

iii) 1 lakh = ——- hundred

iv) 1 lakh = ——- ten

v) 1 crore = —– ten lakh

vi) 1 crore = —– lakh

vii)1 crore = —— ten thousand

viii) 1 crore = ——- thousand

ix) 1 crore = ——- hundred

x) 1 crore = —— ten

Solution:

i) 1 lakh = 10 ten thousand

ii) 1 lakh = 100 thousand

iii) 1 lakh = 1000 hundred

iv) 1 lakh = 10000 ten

v) 1 crore = 10 ten lakh

vi) 1 crore = 100 lakh

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 × 1000000 + 3 × 100000 + 0 × 10000 + 3 × 1000 + 2 × 100 + 0 × 10 + 6 × 1

ii) 55,029,007

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

iii) 6,110,003,007

Expanded form = 6 × 1000000000 + 1 × 100000000 + 1 × 10000000 + 0 × 1000000 + 0 × 100000 + 0 × 10000 + 3 × 1000 + 0 × 100 + 0 × 10 + 7 × 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) Nighty-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 × 10 × 10 × 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 × 10 × 10 × 10 × 10 × 10 × 10 × 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 and 5are 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 × 20 = 40, 00,000 mg

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

We know 1 g = 1,000 mg

Weight of the box having all tablets = 40,00,000 ÷ 1,000=4000g

And, as 1 kg = 1,000 g

Therefore, Weight of the box having all tablets = 4,000 ÷ 1,000 = 4000g = 4 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 × 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 × 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 × 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 × 39 = 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, 230,466 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 cm = 200 + 15 = 215 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 x 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 ml = 4,000 + 650 = 4,650 ml

(1 L = 1,000 ml)

Capacity of each glass = 25 ml

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

Question: 12

Medicine in packed in boxes, each such boxes weighing 4kg 500g. 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 kg = 8, 00,000 g (1 kg = 1,000 g)

As given in the question, Weight of each packed box

= 4,500 g = 4,000 + 500 = 4,500 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 × 4,500 = 7, 96,500 g (under permissible limit)

Therefore, Weight of 178 boxes = 178 × 4,500 = 8, 01,000 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 Km 875 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 m = 1,000 + 875 = 1,875 m (1 km = 1,000 m)

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

= 2 × 1,875 = 3,750 m

Total distance covered by her in a week = 7 × 3,750 = 26,250 m = 26.25 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 × 800 = 720000

v) 10 × 800 = 8000

vi) 90 x 300 = 27000

Question: 4

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

i) 878 ÷ 28

ii) 745 ÷ 24

iii) 4489 ÷ 394

Solution:

i) 900 ÷ 30 = 30

ii) 700 ÷ 20 = 35

iii) 4000 ÷ 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 in multiplied by the difference of twelve and eight.

Solution:

i) 4 × (13 + 7)

ii) 8 × (9 − 4)

iii) 28 − 73

iv) (3 + 7) x (12 − 8)

Question: 6

Simplify each of the following:

i) 124 − (12 − 2) × 9

ii) (13 + 7) × (9 − 4) − 18

iii) 210 − (14 − 4) x (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) $I\overline{V}CCI$
ii) $\overline{X}IX$
iii) $XL\overline{I}V$
iv) $X\overline{X}VDCCCXIX$

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) $\overline{\text{I}}\text{VCDXLIV}$
ii) $\text{V}\overline{\text{I}}\text{CKXLIX}$
iii) $\text{I}\overline{\text{X}}\text{CCCXCI}$
iv) $\text{L}\overline{\text{X}}\text{XIX}$

Solution:

i) 4444

ii) 6949

iii) 9391

iv) 70009

Question: 16

Which of the following is meaningless?

i) $\text{I}\overline{\text{I}}\text{ICC} <$

ii) KKKCCXI

iii) XD

iv) VC

Solution:

(i) and (iii) are meaningless.