

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 two 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 = $7 \times 100 = 700$

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