Mathematics

Chapter 1: Knowing Our Numbers

Important Questions

Multiple Choice questions:

1. The smallest 8 digit number is called:

    A. Ten lakh

    B. One lakh

    C. Ten crore

    D. One crore

2. Which of the following is not a symbol to write Roman numerals?

    A. D

    B. V

    C. M

    D. N

3. If we add 1 more to the greatest 5-digit number we get:

    A. Smallest 5-digit number

    B. Smallest 4-digit number

    C. Smallest 3-digit number

    D. Smallest 6-digit number

4. The smallest 4-digit number using any one digit twice from the numbers 2, 8, 9 is:

    A. 2889

    B. 2289

    C. 2298

    D. 2898

5. The smallest 4-digit number having three different digits is:

    A. 1000

    B. 1203

    C. 1320

    D. 1002

6. Which of the following options is equal to MMMCCLXXV – MCCCXXIV?

    A. MLMCI

    B. MMCLI

    C. MCMLI

D. MCMIL

7. Which pair has same digits at hundreds place?

    A. 4232, 4341

    B. 5432, 6922

    C. 6524, 7823

    D. 2334, 2340

8. Which of the following options is true?

    A. XCVIII > MCVIII

    B. DCVIII < MCVIII

    C. DCVIII = MCVIII

    D. XCVIII < LXXXVII

9. The greatest 4-digit number using any one digit twice from the numbers 7, 1, 2 is:

    A. 7221

    B. 7721

    C. 7122

    D. 7112

10. The difference between face value and place value of 5 in 210517 is:

    A. 4995

    B. 5005

    C. 495

    D. 395

11. Make the greatest four digit number by using any one digit twice by 3, 8, 7?

    A. 8378

    B. 8873

    C. 3387

    D. 7783

12. Write the greatest 4-digit number using different digits with 6 in the tens place.

    A. 9876

    B. 9867

    C. 9687

    D. 6987

13. Which of the following is the Roman numeral for the number 2765?

    A. MMDCCXLV

    B. MMDCXLXV

    C. MMDCCLXV

    D. MMCDCLXV

14. The smallest 4-digit number using the digits 2, 1, 3, 7 without repetition is:

    A. 1237

    B. 2137

    C. 2371

    D. 3217

15. Identify the greatest and the smallest in 2853, 7691, 9999, 12002, 124:

    A. 12202, 124

    B. None of these

    C. 12202, 7691

    D. 9999, 124

Match The Following:

	Column I		Column II
1.	Estimation	A.	International System
2.	Billion, Million	B.	Rough Calculation
3.	Crore	C.	90,030
4.	Nine Thousand Thirty	D.	Indian System

Fill in the blanks:

1. 1 million = _____ hundred thousand.

2. 1 crore = _____ ten lakh.

3. 1 crore = _____ million.

4. 1 million = _____ lakh.

True /False:

1. 1 thousand = 10 hundred.

2. There are many Roman Numbers.

3. You are using estimation to get rough idea.

4. Standard unit of mass is centimeter.

Very Short Questions:

1. How many crores makes a billion?

2. Find the greatest number from below number 763298 and 764298.

3. 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 crore fifty two lakh twenty one thousand three hundred two.

   (d) Fifty eight millions four hundred twenty three thousand two hundred two.

4. On Sunday 6000 people visited a zoo. Among them 2615 were children then how many adult visited zoo?

5. 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?

6. Find the greatest and the smallest number. 42375, 42367, 42329, 42338.

7. Write and solve the expression: Thirteen multiplied by sum of four and eleven. Now reverse the result and add it to earlier result, what you obtain multiply it by 13.

8. Write the smallest three digit number whose value does not change on reversing its digits.

9. Write the greatest three digit number which does not change on reversing its digits.

10. What must be added to 203 to get a number whose digits are reversed of the given number?

11. Write 438 in its expanded form.

12. Write the greatest five-digit number using the digits 4, 2 and 0.

13. The capacity of a water tank is 300 liters. Express its capacity in milliliters.

14. What is the successor of greatest 6-digit number?

15. What is the place value of 7 in 1743?

Short Questions:

1. Of 7,12,540 and 71,25,400 which number is greater and by how much?

2. Write the smallest and the greatest 5-digit numbers using the digits 0,2,4,6,8 (Repetition of digits is not allowed).

3. Write the following numbers in ascending order. How many of them are even numbers?

63,854, 63,584, 65,348, 68,543, 64,835

4. Round the given numbers to the nearest tens.

    (a) 48

    (b) 59

    (c) 64

    (d) 215

5. Estimate the following products:

    (a) 86 × 316

    (b) 898 × 786

6. Divide 2,63,175 by 275.

7. A student multiplied 3759 by 231 instead of multiplying by 213. How much was his product greater than the correct product?

8. Estimate: 25,148 + 7394 + 9343 + 752

9. Write all the even numbers between 90 and 100 in Roman Numerals.

Long Questions:

1. Write the missing digits in the following sums:

    (a)
    ```
        4 1 □ 8 7
        1 □ 4 3 2
      + 2 5 3 □ 9
      ───────────
      □ 4 6 0 □
    ```

    (b)
    ```
        8 □ 4 5 □
      − 6 7 □ □ 8
      ───────────
      □ 4 7 7 5
    ```

2. Write Hindu-Arabic numerals for:

    (a) LXXXVI

    (b) LXXV

    (c) XCIX

    (d) XCI

3. The distance between the school and Reena's house is 1 km 480 m. Everyday she walks both ways. What distance does she cover in 6 days of a week?

4. Simplify: 36 ÷ [5 + {4 x 5 ÷ 2}]

5. To stitch a pant 1 m 15 cm cloth is needed. Out of 36 m cloth, how many pants can be stitched and how much cloth will remain?

6. There are two factories located at place P and the other at place Q. From these factories, a certain commodity is to be delivered to each of the depots situated at A, B and C. Weekly production of commodity by P and Q are 120 kg and 150 kg respectively. Weekly requirement of commodity by A, B and C are 80 kg, 90 kg and 100 kg respectively. P delivers 60 kg to A, 40 kg to B and 20 kg to C. How much amount of the commodity should Q deliver to A, B and C to meet their requirement? If the rate of the commodity is ? 20 per kg, find the total amount to be paid to P and Q.

Assertion Reason:

1.) Assertion (A) –92 is greater number than 52.

Reason (R) – When a number is bigger or larger than the second or rest quantities ornumbers it is known as greater number.

a) Both A and R are true and R is the correct explanation of A

b) Both A and R are true but R is not the correct explanation of A

c) A is true but R is false

d) A is false but R is true

2.) Assertion (A) – 59785 is the greatest number among 382, 4972, 18, 59785, 750.

Reason (R) – When a number is bigger or larger than the second or rest quantities or numbers it is known as greatest number.

a) Both A and R are true and R is the correct explanation of A

b) Both A and R are true but R is not the correct explanation of A

c) A is true but R is false

d) A is false but R is true

ANSWER KEY-

Multiple Choice questions:

1. **D.** One crore

2. **D.** N

3. **D.** Smallest 6-digit number

4. **B.** 2289

5. **D.** 1002

6. **C.** MCMLI

7. **D.** 2334, 2340

8. **B.** DCVIII < MCVIII

9. **B.** 7721

10. **C.** 495

11. **B.** 8873

12. **B.** 9867

13. **C.** MMDCCLXV

14. **C.** 1237

15. **A.** 12202, 124

Match The Following:

	Column I		Column II
1.	Estimation	**B.**	Rough Calculation
2.	Billion, Million	**A.**	International System
3.	Crore	**D.**	Indian System
4.	Nine Thousand Thirty	**C.**	90,030

Fill in the blanks:

1. 1 million = **ten** hundred thousand.

2. 1 crore = **ten** ten lakh.

3. 1 crore = **ten** million.

4. 1 million = **ten** lakh.

True /False:

1. True

2. False

3. True

4. False

Very Short Answer:

1. 1 billion= 100 crore

2. 764298 is the greatest number

3. a) 73,75,307

    b) 9,05,00,041

    c) 7,52,21,302

    d) 58,423,202

4. Total number of people visited the zoo = 6000 people

   Total number of children = 2615 children

   Then number of adults = 6000 − 2615 = 3385

5. Sale of books in the first week = Rs.2,85,891.

   Sale of books in the second week = Rs.4,00,768

   ∴ Sale for the two weeks together = Rs.2,85,891 + Rs.4,00,768 = Rs.6,86,659.

   The sale was greater in the second week by Rs. 4,00,768 − Rs.2,85,891 i.e., by Rs. 1,14,877.

6. The greatest number is 42375

   The smallest number is 42329

7. Expression 13 × (4 + 11) = 13 × 15 = 195

   On reversing the answer = 591

   Adding reversing number to the result i.e., 591 + 195 = 786

   Multiplying it by 13 i.e., 786 × 13 = 10218.

8. The required number is 101.

9. The required number is 999.

10. The number obtained by reversing the digits of 203 = 302.

    ∴ Difference = 302 − 203 = 99

    Hence, the required number is 99.

11. 438 = 4 × 100 + 3 × 10 + 8.

12. The greatest five-digit number using the digits 4, 2 and 0 is 44420.

13. We know that

    1 liter = 1000 mL

    ∴ 300 liters = 300 × 1000 mL = 3,00,000 mL

    Hence, the capacity of water tank = 3 lakh milliliters.

14. Greatest 6-digit number = 999999

    Successor of it = 999999 + 1 = 1000000

    i. e., smallest 7-digit number.

    Hence, the required successor = 10,00,000.

15. Let us write 1743 in its expanded form

    1743 = 1000 + 700 + 40 +3

    Place value of 7 = 700

Hence, the place value of 7 = 700.

Short Answer:

1. Since 71,25,400 is a seven-digit number and 7,12,540 is a six-digit number.

So, 71,25,400 is greater than 7,12,540.

```
Now        7125400
       (-)  712540
       ────────────
            64,12,860
       ────────────
```

Hence 71,25,400 is greater than 7,12,540 by 64,12,860.

2. Given digits are 0, 2, 4, 6, 8

5 – digit greatest number = 86420;

5 – digit smallest number = 20468.

3. The given numbers are 63,854, 63,584, 65,348, 68,543 and 64,835.

Ascending order is 63,584 ; 63,854 ; 64,835 ; 65,348 ; 68,543

Even numbers are 63,584, 63,854 and 65,348

4. Given number Rounded off to tens

(a) 48 → 50

(b) 59 → 60

(c) 64 → 60

(d) 215 → 220

5. (a) 86 × 316

∵ 86 → 90 [Rounding off to tens] and 316 → 320 [Rounding off to tens]

So, the estimated product is 90 × 320 = 28800

6. We have

```
              957
      275 )  263175
            -2475↓
            ──────
             1567│
            -1375↓
            ──────
             1925
            -1925
            ──────
                0
            ──────
```

Hence, quotient = 957 and remainder = 0.

7. First Method:

(3759 x 231)-(3759 x 213) = 868329 – 800667 = 67662

Second Method: 3759 x (231 – 213) = 3759 x 18 = 67662

Hence, the product difference is 67662.

8. Estimated values are

25,148 → 25100

7394 → 7400

9343 → 9300

752 → 800

So, the estimated sum is 25100 + 7400 + 9300 + 800 = 42600

Hence, the estimated sum is 42600.

9. Even numbers between 90 and 100, we have 92, 94, 96, 98.

∴ 92 = XCII,

94 = XCIV,

96 = XCVI,

98 = XCVIII

Long Answer:

1.

2. (a) LXXXVI = 50 + 30 + 6 = 86

(b) LXXV = 50 + 20 + 5 = 75

(c) XCIX = (100 – 10) + 9 = 99

(d) XCI = (100 – 10) + 1 = 91

3. Distance covered when she walks one way = 1 km 480 m = 1480 m

Therefore, the distance covered when she walk both ways in a day = 1480 × 2 m = 2960 m

Total distance covered by Reena in 6 days = 2960 × 6 m = 17760 m or 17 km 760 m.

4. Given:

36 ÷ [5 + {4 × 5 ÷ 2}]

Using B, O, D, M, A, S

$$= 36 \div \left[5 + \left\{4 \times \frac{5}{2}\right\}\right] = 36 \div [5 + \{2 \times 5\}]$$

$$= 36 \div [5 + 10] = 36 \div 15$$

$$= 36 \times \frac{1}{15} = \frac{12}{5} \text{ or } 2\frac{2}{5}$$

5.

```
          3 1
115 / 3 6 0 0
    - 3 4 5
    ─────────
      1 5 0
    - 1 1 5
    ─────────
        3 5
```

Cloth required to stitch 1 pant = 1 m 15 cm

= 100 cm + 15 cm [∵ 1 m = 100 cm]
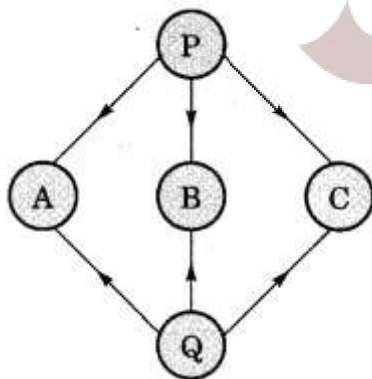
= 115 cm

Total cloth = 36 m = 36 × 100 cm = 3600 cm

Therefore number of pants stitched = $\frac{3600}{115}$

Hence, 31 pants can be stitched and cloth left over is 35 cm.

6.

Amount of commodity delivered by P to A = 60 kg

Amount of commodity delivered by Q to A = 80 − 60 = 20 kg

Amount of commodity delivered by P to B = 40 kg

Amount of commodity delivered by Q to B – 90 – 40 = 50 kg

Amount of commodity delivered by P to C = 20

Amount of commodity delivered by Q to C = 100 – 20 = 80 kg.

Now Amount of money to be paid to P by A, B and C = ₹(60 × 20 + 40 × 20 + 20 × 20)

= ₹ (1200 + 800 + 400)

= ₹ 2400

and amount of money to be paid to Q by A, B and C

= ₹ (20 × 20 + 50 × 20 + 80 × 20)

= ₹ (400 + 1000 + 1600) = ₹ 3000

Hence, the total amount

= ₹ 2400 + ₹ 3000 = ₹ 5400.

Assertion Reason Answers:

1.) a) Both A and R are true and R is the correct explanation of A

2.) a) Both A and R are true and R is the correct explanation of A