

Tender Heart High School, Sec- 33B, Chandigarh

Class : VI

Date: 15.04.24

Subject: Mathematics

Teacher: Ms. Sushma

Ch-1 Number System

Good Morning Students,

In Exercise 1A of Ch-1 Number System, We have done upto question 11. Today, we will do Q12 to Q20.

Q12. Write down three consecutive whole numbers succeeding 72,597.

Ans:- 72,598 ; 72,599 ; 72,600

Q13. Write down three consecutive whole numbers just preceding 5,10,001.

Ans:-
 $5,10,001 - 1 = 5,10,000$
 $5,10,000 - 1 = 5,09,999$
 $5,09,999 - 1 = 5,09,998$

Q14. How many 6-digit numbers are there in all?

Ans:- The smallest 6-digit number = 100000

The largest 6-digit number = 999999

$\therefore$, The total 6-digit numbers are = $(999999 - 100000) + 1$
 $= 9,00,000$ (nine lakh)

Q15. (i) Write the largest 8-digit number.

Ans:- 99999999

(ii) Write the smallest 8-digit number.

10000000

Q16. Write all possible 2-digit numbers formed by the digits 3, 7, 9, when repetition of digits is not allowed.

Ans:- 37, 39, 73, 79, 93, 97

Q17. (i) Write all possible 3-digit numbers that can be formed by the digits 1, 3 and 7, using each digit only once in each number.

Solution:- 137, 173, 317, 371, 713, 731

(ii) Write all possible 3-digit numbers that can be formed by the digits 9, 2 and 0, using each digit only once in each number.

Solution:- 209, 290, 902, 920

Q18. (i) Write the smallest 4-digit number that can be formed by the digits 0, 1, 3 and 6, using each digit only once.

Solution:- 1,036

ii) Write the greatest 4-digit number that can be formed by the digits 0, 2, 7 and 5 using each digit only once.

Solution:- 7, 5 2 0

Q19. Write the smallest 4-digit number of four different digits. [digits are 0, 1, 2 and 3]

Soln:- 1, 0 2 3

20. Write the greatest 4-digit number of four different digits.

The greatest 4 different digits are 9, 8, 7 and 6

Soln:- 9, 8 7 6

Comparison of Numbers

In order to compare two numbers, we adopt the following rules:-

Rule 1: → If two numbers with different number of digits are given, then the number which has more digits is the greater of the two.

Rule 2: → Suppose we have to compare two numbers with the same number of digits.

Step 1: First compare the digits at the extreme left place in both the numbers.

Step 2: If they are equal in value, compare the second digit from the left in both the numbers.

Step 3: If the second digits from the left are equal, compare the third digits from the left in both the numbers.

Step 4: Continue until you come across unequal digits at the corresponding places. Now, the number with greater such digit is the greater of the two.

Exercise 18

Fill each of the boxes with the correct symbol $>$ or $<$:

1. $98,760$ $<$ $1,02,345$

2. $5,43,210$ $>$ $98,306$

3. $2,13,576$ $>$ $67,531$

4. $3,02,368$ $>$ $50,545$

5. $76,134$ $>$ $76,079$

Arrange the following numbers in ascending order.

11. 57,860; 60,375; 57,906; 61,435; 60,296; 61,380
Ans:- $57,860 < 57,906 < 60,296 < 60,375 < 61,380 < 61,435$

12. 7,15,840; 98,756; 8,94,105; 17,18,195; 98,678; 8,95,103
Ans:- $98,678 < 98,756 < 7,15,840 < 8,94,105 < 8,95,103 < 17,18,195$

13. 5,01,462; 5,01,076; 5,00,984; 5,02,000; 5,10,010; 4,56,780
Ans:- $4,56,780 < 5,00,984 < 5,01,076 < 5,01,462 < 5,02,000 < 5,10,010$

Arrange the following numbers in descending order:

14. 16,13,241; 7,54,328; 7,52,987; 16,04,895;
7,53,024; 16,20,342
Ans:- $16,20,342 > 16,13,241 > 16,04,895 > 7,54,328 > 7,53,024 > 7,52,987$

15. 93,68,516; 1,05,40,603; 9,10,32,401; 93,67,839;
1,05,41,201
Ans:- $9,10,32,401 > 1,05,41,201 > 1,05,40,603 > 93,68,516 > 93,67,839$

16. 1,48,65,710; 2,05,07,106; 3,00,08,215; 27,86,789;
28,76,879.
Ans:- $3,00,08,215 > 2,05,07,106 > 1,48,65,710 > 28,76,879 > 27,86,789$

Exercise 1C

Q1. A survey ----- three states?

Soln:→

Population of Arunachal Pradesh	= 13,82,611
Population of Meghalaya	= 29,64,007
Population of Tripura	= +36,71,032
Total population of three states	= 80,17,650

So, the population of three states is 80,17,650.

Q2. The population ----- of Telengana?

Soln:→

Population of Andhra Pradesh	= 6,30,20,208
Population of Telengana	= -3,52,86,757
Difference	= 2,77,33,451

So, 2,77,33,451 population of Andhra Pradesh exceed that of Telengana.

Q3. There was a ----- stock now?

Soln:→

Total stock of wheat in a godown of Food Corporation of India	= 85,90,865 quintals
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Stock of wheat given to Punjab = 17,89,564 quintals.

Stock of wheat given to Delhi = 23,17,986 quintals.

Stock of wheat given to both states (Punjab and Delhi)

$$= 17,89,564$$

$$+ 23,17,986$$

$$\hline 41,07,550$$

Remaining Stock = (Total stock) - (given stock)

$$= 85,90,865 - 41,07,550$$

$$= \begin{array}{r} 85,90,865 \\ - 41,07,550 \\ \hline 44,83,315 \end{array}$$

∴ The balance stock is 44,83,315.

Q4. A number exceeds ----- the number.

Soln:- A number exceeds 47,56,908 by 16,34,096

$$\begin{array}{r} \text{Required Number} = 47,56,908 \\ + 16,34,096 \\ \hline 63,91,004 \end{array}$$

Q5. By how much ----- than 20,00,000?

Given that,

The number 15,69,748 smaller than 20,00,000

We have to find the difference between the larger and the smaller number.

$$\begin{array}{r} \text{Now,} \quad 20,00,000 \\ - 15,69,748 \\ \hline 04,30,252 \end{array}$$

6. By how much ----- than 86,78,215?

Soln:→ Here, we have to find that how much the larger number is larger than the smaller number.

Now,

$$\begin{array}{r} 1,43,56,803 \\ - 0,86,78,215 \\ \hline 0,56,78,588 \end{array}$$

7. What number must be ----- to get 8,69,873?

Soln:- Given numbers are 23,56,714 and 8,69,873.

⇒ We have to subtract the smaller number from the larger number to get the required number.

Now,

$$\begin{array}{r} 23,56,714 \\ - 0,86,9,873 \\ \hline 14,86,841 \end{array}$$

8. What must be ----- to get 63,00,000?

Soln:→ To get the required number, we must subtract the smaller number from the larger number.

$$\begin{array}{r} 63,00,000 \\ - 46,97,859 \\ \hline 16,02,141 \end{array}$$

Q9. The sum of -----, find the other.

Soln:→ The sum of two numbers = 60, 10, 203
 One number = 48, 21, 325
 another number = 60, 10, 203 - 48, 21, 325

$$\begin{array}{r} 60, 10, 203 \\ - 48, 21, 325 \\ \hline 11, 88, 878 \end{array}$$

So, the another number is 11, 88, 878

Q10. A man had ----- daughter get?

Soln:→ Total amount a man had = ₹ 1, 35, 00, 000

Amount given to his wife = ₹ 56, 32, 560

Amount given to his son = ₹ 37, 84, 890

Total amount given to wife and son = ₹ 94, 17, 450

Amount given to his daughter = 1, 35, 00, 000 -
 94, 17, 450

$$\begin{array}{r} 1, 35, 00, 000 \\ - 94, 17, 450 \\ \hline 40, 82, 550 \end{array}$$

So, the daughter will get ₹ 40, 82, 550

Q11. Swati saves ----- in 12 years?

Solution: - Swati's saving per month = ₹ 6,750
" " In 12 months = $6,750 \times 12$
Swati's saving in 12 years = $6,750 \times 12 \times 12$
= ₹ 9,72,000

Therefore, Swati's saving in 12 years is
₹ 9,72,000

Q12. The cost ----- Chairs cost?

Solution: - The cost of a chair = ₹ 1,586
Cost of 245 Chairs = $1,586 \times 245$
= ₹ 3,88,570

∴ The cost of 245 chairs is ₹ 3,88,570.

Q13. A factory produces ----- ordinary year?

Solution: - Production of screws in one day = 9,675
Production of screws in 365 days = $9,675 \times 365$
= 35,31,375 screws
So, 35,31,375 screws are produced in 365
(an ordinary year).

Q14. An aeroplane ----- 58 hours?

Solution: - Distance covered by aeroplane in one hour = 1,685 km
Distance covered by aeroplane in 58 hours = $1,685 \times 58$

$$= 97,730 \text{ km}$$

Q 15. A scooter ----- scooter's cost?

Solution

$$\begin{aligned} \text{Cost of a scooter} &= ₹ 46,850 \\ \text{Cost of 234 scooters} &= 46,850 \times 234 \\ &= ₹ 1,09,62,900 \end{aligned}$$

Q 16. How much ----- contributed ₹ 740?

Solution:-

$$\begin{aligned} \text{Contribution for a charity show by 1 student} &= ₹ 740 \\ \text{Contribution for a charity show by 1625 students} &= 740 \times 1625 \\ &= ₹ 12,02,500 \end{aligned}$$

So, Total money collected is ₹ 12,02,500.

Q 17. If the cost ----- each refrigerator?

Soln:-

$$\begin{aligned} \text{Cost of 65 refrigerators} &= ₹ 48,46,400 \\ \text{Cost of 1 refrigerator} &= \frac{48,46,400}{65} \\ &= ₹ 74,560 \end{aligned}$$

$$65 \overline{) 48,46,400} \quad (74560$$

$$\begin{array}{r} - 455 \downarrow \\ \hline 296 \downarrow \\ - 260 \downarrow \\ \hline 364 \\ - 325 \downarrow \\ \hline 390 \\ - 390 \\ \hline 00 \\ \hline \end{array}$$

Q18 If the cost _____ each flat.

Soln:- Cost of 35 flats = ₹ 1,24,94,300

$$\begin{aligned} \text{Cost of 1 flat} &= \frac{\text{Total cost}}{\text{Total no. of flats}} \\ &= \frac{12494300}{35} \\ &= \underline{356980} \end{aligned}$$

$$= \text{₹ } 3,56,980$$

[illegible]

Q19. The production - - - - - find the other.

Soln:- Production

Product of two numbers = 17, 20, 740

One number = 1,785

$$\therefore \text{Another number} = 1720740 \div 1785$$

$$= 964$$

$$\begin{array}{r}
 964 \\
 1785 \overline{) 1720740} \\
 \underline{- 160650} \downarrow \\
 11424 \\
 \underline{- 10710} \downarrow \\
 7140 \\
 \underline{- 7140} \\
 \hline
 x
 \end{array}$$

Q20. A car covers ----- car move?

Soln:- Distance covered by car = 4,320 km
 Time taken = 45 hours.
 $\therefore$ Speed of car per hour = $\frac{\text{Distance}}{\text{Time}}$

$$\begin{array}{r}
 96 \\
 45 \overline{) 4320} \\
 \underline{- 4050} \downarrow \\
 270 \\
 \underline{- 270} \\
 \hline
 x
 \end{array}$$

$$= \frac{4320}{45} = 96 \text{ km/h}$$

Q21. 13 kg 650 g ----- each get?

Soln:- Quantity of milk = 13 kg 650 g (1 kg = 1000 g)
 $= (13 \times 1000 + 650) \text{ g}$
 $= (13000 + 650) \text{ g}$
 $= 13650 \text{ g}$

No. of students = 21

Quantity of milk each student will get

$$\begin{array}{r} 650 \\ 21 \overline{) 13650} \\ \underline{-1260} \\ 1050 \\ \underline{-1050} \\ 00 \\ \underline{0} \\ 0 \end{array} \quad = \frac{13650}{21} = 650 \text{ g.}$$

$\therefore$ Each student will get 650g of milk.

Q22. A man ----- metres/sec.

Distance covered by man in an hour = 36 km
= 36000 m

One hour = 3600 sec.

$$\therefore \text{Speed of car in m/sec} = \frac{36000}{3600}$$

$$= 10 \text{ m/sec}$$

x ————— x ————— x ————— x ————— x ————— x ————— x —————