# **CHAPTER-2**

# **Operations**

# **Addition & Subtraction**

We have done addition and subtraction of numerals in 4 digits in the previous class. Let us revise :

A.	Solve					
	(1)	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	(2)	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	(3)	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
	(4)	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	(5)	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	(6)	5 6 3 2 3 3 0 7

B. Fill in the boxes with the correct number:

(1)	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$(3)  5  3  0  \square$ $\square  8  \square  8$ $9  \square  0  7$
(4)	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	(5) 8 3 3 8 + $16 2 1$ 9 1 9 9	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

### Addition of numerals with 5 digits

### See and understand

Example 1.		Tth	Th	Η	Т	0	Ev
Example 1.		3	2	7	8	5	
	+	1	3	2	1	3	
		4	5	9	9	8	

		Tth	Th	Η	Т	0	
xample 2 :		6	5	8	6	5	
	+	2	6	0	2	6	
		9	1	8	9	1	

### Add:-

- (1) 56,784 and 48,765
- (2) 27,835 and 308
- (3) 20,312 and 5040 and 809
- (4) 6221 and 563 and 51,738
- (5) 53,817 and 37,405



# Subtraction of numerals with 5 digits

### See and understand

Example 1 :		Tth	Th	Н	Т	0	Example 2 :		Tth	Th	Н	Т	0
		6	8	9	3	5			3	3	9	1	8
	—	4	7	8	1	4		—	1	4	7	0	9
		2	1	1	2	1			1	9	2	0	9

### Subtract:-

- (1) 59,726 from 80,780
- (2) 68,349 from 73,405
- (3) 4236 from 47,895
- (4) 23,562 from 78,354
- (5) 31,405 from 53,817



After having solved the above questions you will have realised that the subtraction and addition of a 5 digit number is exactly the same as you would do with a 4 digit, 3 digit or 2 digit number. In fact, the addition and subtraction of numbers with more than five digits is also the same.

### See and understand :

-							
Example 1 :	Lakh	Tth	Th	Н	Т	0	
	7	5	3	4	2	8	
	+ 1	4	8	5	6	3	
	9	0	1	9	9	1	
Example 2 :	Ten lakh	Lakh	Tth	Th	Н	Т	0
	7	6	3	5	4	8	7
	+ 2	0	8	3	8	0	6
	9	7	1	9	2	9	3
				10			
			Exerc	cise			
(1) 263	3703			(2)	55	007	
+ 78	8395				+ 1 7 3	860	
(3) 378	33546			(4)	994	255	
+ 6 2 3	35627	_			+ 5 9 3	509	
		-					

			Operations
(5)	6 0 2 7 6 2 7 + 9 4 0 0 0	(6)	8 3 8 1 2 + 9 1 9 4 1 4 1
(7)	6 2 7 3 9 0 4 + 4 0 6	(8)	3 8 9 + 8 9 2 3 1 3
Secon	Subtraction of si	x digit or seven dig	it numerals
Exam	ple 1: 7 8 6 5 3 8 -238715 547823	Example 2 :	2 4 4 7 8 2 3 - 1 6 3 8 7 1 5 0 8 0 9 1 0 8
		<b>Exercise</b>	
(1)	7 8 5 0 2 5 2 - 6 2 4 1 0 4 9	(2)	5 1 2 4 2 8 6 
(3)	992646 - 696627	(4)	8 6 8 2 2 3 - 2 2 3 1 0 4
(5)	5593475 — 58752	(6)	4 4 6 7 8 9 5 — 5 9 3 2 5 1

Maths -	5			
(7)	674868	(8)	252457	
-	- 26789		- 9509	
-				

Now make numerals with 5 digits. Take them in groups of two and add them. Also from each group subtract the smaller numeral from the larger.

Similarly make numerals with 3 digits. Take them in groups of two and add them. Get them checked by your teacher.

Ask your friends and find out who made the maximum number of questions.

## Very nice!

After solving the questions you must be eager to know whether your solutions are correct. Here we will tell you how you can check your solution. Let us understand the method.

25308 +76397	Total is 101705	$101705 \\ -25308$
101705	Subtract 25308 from this	76397

Here we can say our answer is correct if we subtract from the total any one of the given numbers, we should get the other.

Now check your answer by this method.

#### **Statement sums**

- (1) One businessman deposited Rs. 13,71,802 in his account in the first year and Rs. 12,18,625 in the second year. What is the total amount in his account in the two years?
- (2) Find the sum of the largest 6 digit number and the smallest 7 digit number.

- (3) The population of one town is 6,52,561 and that of another town is 7,11,332. What is the total population of the two towns?
- (4) In a state there are 4,32,795 children studying in primary schools; 2,99,890 children in middle schools and 2,09,372 children in (secondary) schools. So how many total children are studying in this state?
- (5) The town has total population of 4,53,572 women and men, If 2,25,780 of them are men, what is the number of women?
- (6) The sum of two numbers is 2,30,560. If one of the number is 92,640, then what in the other number?
- (7) There are 3 candidates standing for election. The first candidate got 2,88,562 and the second candidate got 1,91,072 votes. If a total of 8,15,624 votes were cast, what number of votes did the third candidate get?
- (8) Ravi bought a house for Rs 6,80,000 and Rakesh bought another house for Rs. 5,50,000. What is the total cost of the two houses?
- (9) Find the difference between the smallest 4 digit number and the largest 3 digit number.
- (10) By subtracting 1 from the smallest 6 digit number, which number would you get? How many digits would it be?
- (11) Write two numbers whose sum is 9876.
- (12) Write two 5 digit numbers whose sum is 89,854.

# **Multiplication**

#### Observe, understand and complete the following-









Make some similar questions and give them to your friends to solve.

### Let us do and learn-

You have already learnt the method of multiplying a two digit number with another two digit number.

The examples given below will make it clear how you can multiply a three digit number with a two digit number.

Example 1 :	$463 \times 58 = ?$	
Solution :	$     463 \\     \times 58 \\     3704 \\     +23150 \\     26854 $	$463 \times 58 = 463 \times (50+8) = 463 \times 8 = 3704 = 23150 = 26854$
Example 2 :	645 × 273 = ?	
Solution :	645 × 273 1935 + 45150 129000 176085	$645 \times 273$ $= 645 \times (200+70+3)$ $645 \times 3 = 1935$ $645 \times 70 = 45150$ $645 \times 200 = 129000$ $176085$

### Now try these :

(1)	735×27	(2)	665×51
(3)	513×236	(4)	640×70

- (5) 867×458 (6) 888×222
- (7)  $306 \times 204$  (8)  $6438 \times 30$
- (9) 2284×746

Make some similar questions on your own and show the solutions to your teacher.

## **Statement sums**

- 1. A cooler costs Rs. 4350. If a hostel purchases 15 coolers, what would the total cost of the coolers?
- 2. A cycle costs Rs. 1975. If there are 217 girls in a high school and each child is given one cycle. Find the total amount required for purchasing the cycles.
- 3. 4635 meter cloth is made in a factory in one day. What is the total length of cloth produced in the month of January?
- 4. A godown has 8734 sacks of grain. If each sack contains 75 kg. of grain, What is the total quantity of the grain in the godown?
- 5. Mohan saves Rs. 750 each month in his savings account. What amount would he save in 5 years?

## Division

You have already learnt how to divide a three digit number by a one digit or a two digit number. Let us see some questions of this type:-

(1)	365÷5	(2)	816÷8
(3)	978÷7	(4)	735÷13
(5)	625÷12	(6)	432÷15
(7)	999÷11	(8)	384÷9
(9)	589÷19		

Observe, understand and complete the following :-



#### **Checking your answer**

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Now we will let you know the method of checking your answer.

Look at the following example and understand:-

 $978 \div 7 = ?$  **Solution :** 

						159
						7 978
						27
						21
you know	that	in the give	en question			×68
Dividend	=	978	Divisor	=	7	- 63
Quotient	=	139	Remainder	=	5	×5
Dividend	= ((	Quotient $\times$	Divisor) + R	Rema	inder	
	=	$139 \times 7$	7 + 5			
	=	973 + 5	5			
	=	978				

which is the given dividend hence we can say that our solution is correct.

#### Now you know that

If Quotient  $\times$  Divisor + Remainder = Dividend then our solution is correct.

You can check your earlier solutions and see whether they were correct or not.

#### Division of a four digit and five digit number

You have seen earlier that addition, subtraction and multiplication for a five digit number is same as that for a two, three or four digit number.

#### **Operations**

Example 1:	264	Example 2:	1611
	27 7128	58	93456
	<u> </u>		<u> </u>
	172		354
	162		- 348
	108		65
	- 108		58
Quotient $= 26$	4 000	Quotient $= 1611$	76
Remainder =	0	Remainder = 18	- 58
			18

Before doing the division if you write the table of the divisor it will be easy for you to do the division.

Now find the solution of the given questions and check your answers:--

(1)	6531÷82	(2)	23671÷47
(3)	$4035 \div 24$	(4)	35152÷32
(5)	71839÷113	(6)	55679÷36

.....

Make some more questions, solve them and show them to your teacher.

### **Statement Sums**

- 1. The daily wages of 25 labours is Rs. 1750. So what is the daily wage of each labour?
- 2. On dividing 21,500 by a certain number we get 125 as the quotient. find the divisor?
- The product of two numbers is 1,15,625. If one of the numbers is 125, find 3. the other?
- The total cost of 35 mobile sets is Rs. 37,825, then what is the cost of each 4. mobile?

- 5. If the divisor is 48, the quotient is 403 and the remainder is 5, find the dividend.
- 6. Do this:

Division method of more than 5 digit numbers is same as the division of 5 digit numbers.

So make some questions with more than five digits and find their solutions.

Find out who amongst your friends solved the maximum number of questions.

### Now for some fun!

1. The given figure has 9 equal squares made with matchsticks.

Now remove only four matchsticks in such a way that you are left with five equal squares.

Make this figure using matchsticks and then

- a) Remove four matchsticksSuch that you are left with seven equal squares
- b) Remove two matchsticks
   Such that you are left with seven equal squares.
- 2. Do this also -
- Step 1 : Make a square and write the numbers 14, 12, 6 and 7 at its edges.





**Operations** 

Setp 2 : Join the mid points of this square to get another square. Write the difference of the numbers of the earlier square at the edges of the second square.

Step 3 : Repeat what you did in step 2 to get 3<sup>rd</sup> square in the centre.

Step 4 : Repeat the same procedure to get 4<sup>th</sup> square, you will observe that you will get the same number at the edges of the fourth square. This is the last square.



**Note :-** While solving this type of squares the numbers <sub>28</sub> of steps may be increased or decreased.



Now you can also make such squares on your own.

3. Given below are some magic squares. Fill the blank boxes with the correct digits as per the instructions given below.



While solving the magic square see that the sum total of each line, each column and each diagonals is same.

4. Look at the given pictures carefully.



Make at least two more pictures by moving this sequence forword.



The numbers taken in this order makes a long series. These numbers are called <u>triangular numbers</u> because points taken equal to these numbers make triangular figure.



Numbers taken in this order makes a long series. These numbers are called square numbers because points taken equal to these numbers make square figure.

5. Understand the given pattern and write at least three more terms in the given sequence:

1)	1,	1+2,	1+2+3,		 	
2)	3,	7,	11,		 	
3)	1,	4,	9,	16,	 	
4)	1	2	4		 	
5)	3	9	27		 	



- 6. Some questions are given below. Understand them and answer carefully:
  - 1. One child can see upto a distance of three kilometers, then how far 6 children can see?
  - 2. Three children plucked 20 mangoes, so how many total mangoes did they pluck together ?
  - 3. There were 20 birds sitting on a tree. A hunter fired a shot at a bird but missed, now how many birds are left on the tree?

Have you been able to answer these questions correctly?

Make some more questions of your own and ask your friends to solve them.

