7 Addition and Subtraction of Bigger Numbers

We have learnt addition of 1-digit and 2-digit numbers. In this chapter, we shall learn the addition of more than 2-digit numbers.

Adding 2-digit and 3-digit Numbers

Example I : Add 525 and 43.

Solution : First, we write the given numbers in the correct columns of hundreds, tens and ones.

Step 1 : Add the ones first.

5 ones + 3 ones = 8 ones

Step 2 : Add the tens.

2 tens + 4 ones = 6 tens

Step 3 : Add the hundreds.

5 hundreds + 0 hundred = 5 hundreds

Write 4 in the hundreds column.

Therefore, 525 + 43 = 568.

H	T	O
5	2	5
	4	3
5	6	8

+

Example II : Solve : 86 + 245 + 23

Solution :

Step 1 : Add the ones.

6 ones + 5 ones + 3 ones = 14 ones = 1 tens + 4 ones

Write 4 in the ones column and take 1 tens to the tens column.

H	T	O
¹	¹	
	8	6
2	4	5
	2	3
3	5	4

+

Step 2 : Add the tens.

8 tens + 4 ten + 2 tens + 1 tens (carried over) = 15 tens

= 1 hundred + 5 ten

Write 5 in the tens column and take 1 hundred to hundreds column.

Step 3 : Add the hundreds.

0 hundred + 2 hundreds + 0 hundred + 1 hundred (carried over) = 3 hundreds

Write 3 in the hundreds column.

Therefore, 86 + 245 + 23 = 354.

Word Problems

Romil collected 332 rupees, Manas collected 206 rupees and Pallavi collected 145 rupees. How many rupees were collected in all ?

	H	T	O	
		¹		
Romil collected	3	3	2	rupees
Manas collected	2	0	6	rupees
Pallavi collected +	1	4	5	rupees
Total rupees collected	6	8	3	

Answer : There were 683 rupees collected in all.

Exercise 7.1

A. Add the following numbers.

1.
H	T	O
	8	3
+ 2	5	3

2.
H	T	O
4	3	6
+	2	7

3.
H	T	O
8	8	9
+	7	0

B. Add the following.

1.

H	T	O
4	6	2
3	5	4
+	3	8

2.

H	T	O
5	3	6
	6	4
+ 2	4	3

3.

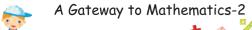| H	T	O
4	0	5
2	5	3
+	4	7

C. Solve the following problems.

1. Deepika and Govind brought 254 coins each. Their friend Rachit brought 286 coins more. How many coins were there in all?

	H	T	O	
Deepika brought	2	5	4	coins.
Govind brought	2	5	4	coins.
Rachit brought +	2	8	6	coins.
In all, there were				coins.

Answer : There were .... coins in all.

2. Shivani had 436 shells which she picked up at the beach. She then picked up 342 shells more. How many shells did she have altogether?

3. In a playground there were 364 children. 538 more children joined them. How many children in total were there in the playground?

4. There were 568 birds in a garden. 384 more joined them. How many birds in total are there in a garden?

5. Akash counted 658 men and 235 women in a fair. What is the total number of men and women that he counted?

6. There are 455 pages in one book and 385 in another. How many pages are there in both the books ?

Subtraction of Numbers Bigger than 100

Example III : Solve $574 - 242$.

Solution : First, we put the numbers in the correct columns before we subtract.

Step 1 : First, subtract the ones.

4 ones – 2 ones = 2 ones

Write 2 in the ones column.

H	T	O
5	7	4
– 2	4	2
3	3	2

Step 2 : Then, subtract the tens.

7 tens – 4 tens = 3 tens

Write 3 in the tens column.

Step 3 : Now, subtract the hundreds.

5 hundreds – 2 hundreds = 3 hundreds

Write 3 in the hundreds column.

Therefore, $574 - 242 = 332$.

Subtraction with Regrouping

Example IV : Solve $632 - 368$.

Solution : We write the given numbers in the correct columns.

Step 1 : As we cannot subtract 3 ones from 1 one, we regroup

32 = 3 tens + 2 one as 2 tens + 12 ones.

Subtract 8 ones from 12 ones.

12 ones – 8 ones = 4 ones

Write 4 in the ones column.

H	T	O
5	12	12
6	3̶	2̶
– 3	6	8
2	6	4

Step 2 : Now, subtract the tens.

As we cannot subtract 6 tens from 2 tens, we group

6 hundreds and 2 tens as 5 hundreds and 12 tens.

12 tens – 6 tens = 6 tens

Write 6 in the tens column.

Step 3 : Now, subtract the hundreds.

5 hundred – 3 hundreds = 2 hundreds

Write 2 in the hundreds column.

Therefore, 632 – 368 = 264.

Exercise 7.2

A. Subtract the following.

1.

H	T	O
1	5	8
–	3	6

2.

H	T	O
7	5	6
– 3	0	4

3.

H	T	O
5	7	8
– 2	6	4

4.

H	T	O
1	6	8
–	6	8

B. Subtract the following (with regrouping).

1.

H	T	O
2	3	9
–	7	8

2.

H	T	O
4	2	4
–	8	6

3.

H	T	O
8	4	7
–	8	8

4.

H	T	O
4	7	0
–	6	9

Think and Subtract

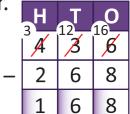Always subtract the smaller number from the greater number.

For Example : Compare the numbers 268 and 436. Subtract the smaller number from the greater number.

Here, 436 > 268, 268 is smaller than 436.

So, subtract 268 from 436.

Therefore, 436 – 268 = 168.

H	T	O
$\overset{3}{\cancel{4}}$	$\overset{12}{\cancel{3}}$	$\overset{16}{\cancel{6}}$
– 2	6	8
1	6	8

Checking Subtraction by Addition

Example V : Solve 538 − 365. Also check the answer.

Solution   : We write the given numbers in the correct columns.

Step 1   : Subtract the ones, 8 ones − 5 ones = 3 ones.
Write 3 in the ones column.

Step 2   : Then, subtract the tens by regrouping
1 hundred 3 tens as 13 tens.
13 tens − 6 tens = 7 tens

H	T	O
⁴5̶	¹³3̶	8
− 3	6	5
1	7	3

Step 3   : Now, subtract the hundreds.
4 hundreds − 3 hundreds = 1 hundred
Therefore, 538 − 365 = 173.
How can we check whether this is correct or not?
Add the difference of 538 and 365 (which is 173) to
the number subtracted (which is 365).

Step 1   : Add the ones first, 3 ones + 5 ones = 8 ones.
Write 8 in the ones column.

H	T	O
¹1	7	3
+ 3	6	5
5	3	8

Step 2   : Add the tens, 7 tens + 6 tens = 13 tens.
13 tens = 1 hundred + 3 tens
Write 3 in the tens column and take 1 hundred to the
hundreds column.

Step 3   : Add the hundreds.
1 hundred + 3 hundreds + 1 hundred (carried over) =
5 hundreds
Therefore, 173 + 365 = 538.

So, our subtraction was done correctly as the sum is
equal to the greater number of subtraction problem.

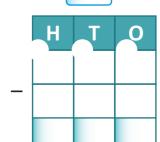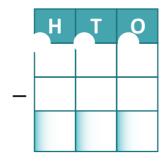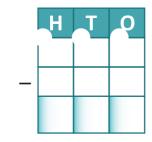**A.** Compare the numbers and subtract the smaller number from the bigger number.

1. 653 ☐ 124   2. 342 ☐ 286   3. 228 ☐ 365   4. 268 ☐ 492

H	T	O
−		

H	T	O
−		

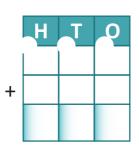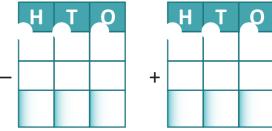| H	T	O
−		

H	T	O
−		

B. Subtract and check by addition.

1. 268 − 174

H	T	O
−		

H	T	O
+		

2. 424 − 294

H	T	O
−		

H	T	O
+		

3. 782 − 486

H	T	O
−		

H	T	O
+		

4. 927 − 469

H	T	O
−		

H	T	O
+		

Subtraction and Addition Facts

Example VI : Add 54 and 78.

Solution : We write given numbers in the correct columns.

Step 1 : Add the ones first.

4 ones + 8 ones = 12 ones

12 ones = 1 ten + 2 ones

Write 2 in the ones column and take 1 ten to the tens column.

H	T	O
1	1	
	5	4
+	7	8
1	3	2

Step 2 : Add the tens.

5 tens + 7 tens + 1 ten (carried over)

= 13 tens = 1 hundred + 3 tens

Write 3 in the tens column and 1 in the hundreds column.

Therefore, 54 + 78 = 132.

To check the answer, we subtract each of the numbers added one by one, that is 54 and 78 from the answer.

Subtract 54 from 132.

Subtract the ones by regrouping to get 8 in the ones column.

Subtract the tens by regrouping to get 7 in the tens column.

H	T	O
0	12	12
1	3	2
−	5	4
	7	8

Therefore, 132 − 54 = 78.

78 is the other addend.
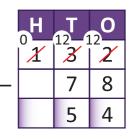
Now subtract 78 from 132.

Again, subtract the ones by regrouping to get 4 in the ones column.

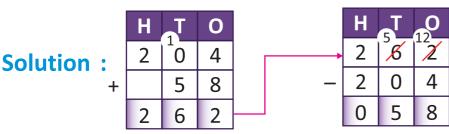Subtract tens by regrouping to get 5 in the tens column.

Therefore, 132 − 78 = 54.

54 is the other addend.

H	T	O
0	12	12
1	3	2
−	7	8
	5	4

Example VII : Add 204 and 58. From the sum subtract the addends one by one.

Solution :

H	T	O
2	0¹	4
+	5	8
2	6	2

Answer : 262

H	T	O
2	6̶⁵	2̶¹²
− 2	0	4
0	5	8

Answer : 58

H	T	O
2	6̶⁵	2̶¹²
−	5	8
2	0	4

Answer : 204

If $142 + 79 = 221$, then, $221 - 142 = $ 79 and $221 - 79 = $ 142

If $206 + 94 = 300$, then, $300 - 206 = $ 94 and $300 - 94 = $ 206

Facts to Know

❖ When we subtract an addend from the sum of two addends, we get the other addend.

Word Problems

Example VIII : There were 543 toffees in a big jar. If 367 toffees were taken out, how many toffees were left in the jar?

Toffees in the big jar

Toffees taken out

Number of toffees left

Therefore, $543 - 367 = 176$.

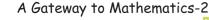| H	T	O
5̶⁴	4̶¹³	3̶¹³
− 3	6	7
1	7	6

Exercise 7.4

A. Find the sum of the addends and then subtract the addends from the sum.

1.

H	T	O
6	4	4
+	7	8

H	T	O
− 6	4	4

H	T	O
−	7	8

2.

H	T	O
6	4	5
+ 1	2	7

H	T	O
− 6	4	5

H	T	O
− 1	2	7

3.

H	T	O
5	0	4
+ 2	5	6

H	T	O
− 5	0	4

H	T	O
− 2	5	6

B. Fill in the boxes.

1. If $126 + 57 = 183$, then $183 - 126 = \boxed{}$ and $183 - 57 = \boxed{}$

2. If $99 + 63 = 162$, then $162 - \boxed{} = 63$ and $162 - \boxed{} = 99$

3. If $86 + 78 = 164$, then $164 - 86 = \boxed{}$ and $164 - 78 = \boxed{}$

C. Solve the following word problems.

1. In a meeting room, there are 250 seats. If 58 seats are vacant, how many people are there in the meeting room?

2. My father bought 275 chocolates. I have eaten 186 chocolates. How many chocolate are left?

3. A shopkeeper had 966 packets of biscuits. Out of these packets, he sold 788. How many packets were left?

4. Out of 586 mangoes, Vishu and his friends ate 264. How many are left?

Points to Remember

- The sign (+) indicates addition. It is called 'plus'.
- When we add two or more numbers, the answer is called sum.
- The sign (−) indicates subtraction. It is called 'minus'.
- When we add 0 to a number, the sum is that number itself.
- When we subtract 1 from a number, we get the previous number.
- When we subtract 0 from a number, we get the number itself.
- When a number is subtracted from itself, difference is zero.

A Gateway to Mathematics-2

A. **Multiple Choice Questions (MCQs)**
Tick (✓) the correct option :

1. Always subtract the smaller number from .... in subtraction.
   (i) same number   (ii) greater number
   (iii) smaller number   (iv) none of these

2. To subtract two numbers, we use the sign ....
   (i) −   (ii) +   (iii) ×   (iv) ÷

3. Sum and difference of 860 and 0 is .... respectively.
   (i) 860 and 860   (ii) 0 and 860
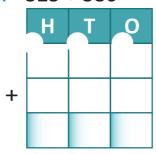   (iii) 1 and 1   (iv) 860 and 0

4. Difference of 950 and 500 is ....
   (i) 950   (ii) 450   (iii) 0   (iv) 500

5. Sum of 260 and 240 is ....
   (i) 20   (ii) 0   (iii) 100   (iv) 500

B. **Write in the correct columns and add.**

1. 325 + 386

H	T	O
+		

2. 360 + 280

H	T	O
+		

3. 278 + 326

H	T	O
+		

C. **Write in the correct columns and subtract.**

1. 628 − 478

H	T	O
−		

2. 860 − 628

H	T	O
−		

3. 885 − 648

H	T	O
−		

D. Subtract and check the answer by adding.

1.

H	T	O
6	9	8
− 2	6	8

H	T	O
+ 2	6	8

2.

H	T	O
8	6	5
− 5	8	7

H	T	O
+ 5	8	7

E. Fill in the blank boxes.

1. If $228 + 66 = 294$, then $294 - 228 = \boxed{}$ and $294 - 66 = \boxed{}$

2. If $426 + 84 = 510$, then $510 - 426 = \boxed{}$ and $510 - 4 = $

3. If $598 + 382 = 980$, then $980 - \boxed{} = 382$ and $980 \boxed{} = 598.$

4. If $899 + 62 = 961$, then $961 - \boxed{} = 899$ and $961 - \boxed{} = 62.$

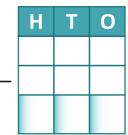**F. Solve the following word problems.**

1. There are 235 men, 382 women and 263 children. How many people are there in all?

H	T	O

2. In a garden, there are 678 roses and 392 marigolds. How many roses are more than marigolds in the garden?

H	T	O

3. Vivek counted 697 boats at the harbour. 583 boats sailed away. How many boats were left?

H	T	O

4. Shailesh scored 326 and 218 runs in 2 matches. How many runs did he score in all?

H	T	O
+		

HOTS

Find the age of all your family members and add all the ages. Is it greater than 100?

Lab Activity

Objective : Find out your lucky number by adding the value of all the letters which form your name.

Materials Required : Sheet of paper and pen or pencil

Activities :

❖ Write alphabet A to Z on paper.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

❖ Now, write the corresponding number of each alphabet.

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M

14	15	16	17	18	19	20	21	22	23	24	25	26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

❖ Now, calculate your lucky number.

Suppose your name is Mukesh.

Write corresponding numbers of each letter and add.

Mukesh = 13 + 21 + 11 + 5 + 19 + 8

= 77 = 7 + 7

= 14 = 1 + 4

= 5

So, 5 is your lucky number.