



CLICK HERE TO ACTIVATE

LESSON
PART 3



2

+ - × ÷ + - × ÷ + - × ÷ + - × ÷



ADDITION

READY ... STEADY

A. Add (without regrouping).

1

	H	T	O
	3	4	2
+	2	3	4

2

	H	T	O
	1	8	5
+	6	0	2

3

	H	T	O
	3	0	2
+	2	3	4

B. Add (regrouping of ones).

1

	H	T	O
	4	2	5
+	1	3	7

2

	H	T	O
	5	0	6
+	3	1	8

3

	H	T	O
	3	3	7
+	2	4	8

C. Add (regrouping of tens and ones).

1

	H	T	O
	4	5	6
+	2	7	4

2

	H	T	O
	4	5	9
+	3	8	7

3

	H	T	O
	5	8	6
+	1	9	8

4

	H	T	O
	2	7	9
+	1	6	5

5

	H	T	O
	5	6	8
+	3	8	4

6

	H	T	O
	3	7	4
+	2	9	6

**D. Will you add or subtract to get the answer for the following?
Solve the problems where you have to add.**

1. Minto read a book in the holidays. He read 24 pages on first day and 107 pages on the next day. How many pages did he read in all ? (Add / Subtract)
2. 314 people attended a music concert on Saturday. 460 people attended it on Sunday. How many people attended the concert on both the days ? (Add / Subtract)
3. There were 560 people on a train. 334 people got down at a station. How many people are there on the train now ? (Add / Subtract)

PROPERTIES OF ADDITION

1. Order property

Two numbers can be added in any order.
Their sum remains the same.



345 men and 262 women add up to 607 people.
262 women and 345 men also add up to 607 people.

	H	T	O
①	3	4	5
+	2	6	2
	6	0	7

	H	T	O
①	2	6	2
+	3	4	5
	6	0	7



$$345 + 262 = 262 + 345$$

2. Grouping property

Three numbers can be added in any order. Their sum remains the same.

To add three numbers, group any two numbers first and add.

Add the sum to the third number.



$(426 \text{ men} + 41 \text{ women}) + 231 \text{ children} = 698 \text{ people}$

$(41 \text{ women} + 426 \text{ men}) + 231 \text{ children} = 698 \text{ people}$

$(231 \text{ children} + 41 \text{ women}) + 426 \text{ men} = 698 \text{ people}$

	4	2	6
	0	4	1
+	2	3	1
	6	9	8

	0	4	1
	4	2	6
+	2	3	1
	6	9	8

	2	3	1
	0	4	1
+	4	2	6
	6	9	8

The sum of 426, 41 and 231 remains the same, in whichever order you arrange and add them.

3. Zero property

When 0 is added to a number, or when a number is added to 0, the sum is the number itself.

432 cows added to 0 cows gives 432 cows.

0 horses added to 659 horses gives 659 horses.

	4	3	2
			0
+			
	4	3	2

			0
	6	5	9
+			
	6	5	9



Exercise 2.1

Use the properties of addition to add the following.

- $603 + 112 = \underline{\hspace{2cm}} + 603$
- $808 + \underline{\hspace{2cm}} = 101 + 808$
- $818 + 0 = \underline{\hspace{2cm}}$
- $\underline{\hspace{2cm}} + 206 = 206$
- $0 + \underline{\hspace{2cm}} = 209$
- $311 + 260 + 212 = 212 + 311 + \underline{\hspace{2cm}}$
- $425 + 216 + \underline{\hspace{2cm}} = 216 + 425 + 108$
- $\underline{\hspace{2cm}} + 410 + 564 = 410 + 564 + 248$
- $213 + 786 + 116 = 116 + 213 + \underline{\hspace{2cm}}$
- $720 + \underline{\hspace{2cm}} + 235 = 235 + 720 + 0$

ADDITION WITHOUT REGROUPING

Example : Add 4135 and 2314.

Adding 4-digit numbers is just like adding 3-digit numbers.

Arrange the numbers one below the other according to place values as shown and add.

Always start from the ones.

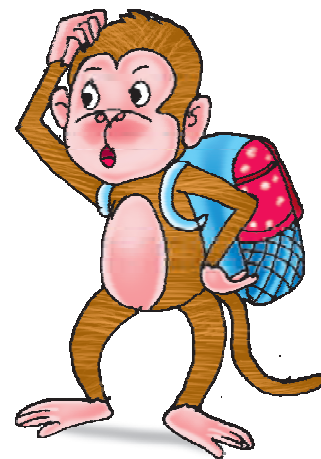
Step 1 : Add the ones.

Step 2 : Add the tens.

Step 3 : Add the hundreds.

Step 4 : Add the thousands.

	TH	H	T	O
	4	1	3	5
+	2	3	1	4
	6	4	4	9



Exercise 2.2

Add these numbers.

1.

	TH	H	T	O
	3	4	5	2
+	1	2	2	4

2.

	TH	H	T	O
	5	0	8	4
+	2	8	0	1

3.

	TH	H	T	O
	8	0	4	4
+	1	0	2	3

4.

	TH	H	T	O
	5	3	0	3
+	3	6	5	1

5.

	TH	H	T	O
	4	0	0	2
+	2	0	6	5

6.

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

7.

	TH	H	T	O
	5	0	3	2
+	4	4	5	3

8.

	TH	H	T	O
	2	1	1	2
+	5	0	1	2

9.

	TH	H	T	O
	7	8	1	2
+	1	0	4	3

ADDITION WITH REGROUPING

Example : Add 3665 and 4847

Step 1 : Add the ones : $5 + 7 = 12$

12 ones = 1 ten + 2 ones

Step 2 : Add the tens : (carried) $1 + 6 + 4 = 11$

11 tens = 1 hundred + 1 ten

Step 3 : Add the hundreds : (carried) $1 + 6 + 8 = 15$

15 hundreds = 1 thousand + 5 hundreds

Step 4 : Add the thousands : (carried) $1 + 3 + 4 = 8$

	Th	H	T	O
	1	1	1	
	3	6	6	5
+	4	8	4	7
	8	5	1	2

Example : Add 3145, 4634 and 1769.

Step 1 : Add the ones.

$5 + 4 + 9 = 18$ ones

18 ones = 1 ten + 8 ones

Step 2 : Add the tens.

(carried) $1 + 4 + 3 + 6 = 14$ tens

14 tens = 1 hundred + 4 tens

Step 3 : Add the hundreds.

(carried) $1 + 1 + 6 + 7 = 15$ hundreds

15 hundreds = 1 thousand + 5 hundreds

Step 4 : Add the thousands.

(carried) $1 + 3 + 4 + 1 = 9$ thousands

	Th	H	T	O
	1	1	1	
	3	1	4	5
	4	6	3	4
+	1	7	6	9
	9	5	4	8

Exercise 2.3

A. Add these numbers.

1.

	Th	H	T	O
	4	3	2	2
+	4	9	6	8

2.

	Th	H	T	O
	3	0	8	9
+	3	4	1	1

3.

	Th	H	T	O
	1	4	1	5
+	7	8	7	9

4.

	Th	H	T	O
	5	4	3	6
+	4	0	8	6

$$\begin{array}{r} \text{Th H T O} \\ 5702 \\ + 1439 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 5184 \\ + 4365 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 6399 \\ + 1022 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 6303 \\ + 1807 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 2146 \\ + 2435 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 2849 \\ + 5132 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 6479 \\ + 1854 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 1465 \\ + 3781 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 4371 \\ + 5367 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 5345 \\ + 4178 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 6179 \\ + 3136 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 2192 \\ + 5678 \\ \hline \end{array}$$

B. Add these numbers.

$$\begin{array}{r} \text{Th H T O} \\ 2143 \\ + 1541 \\ + 2014 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 1213 \\ + 3440 \\ + 3101 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 7043 \\ + 132 \\ + 223 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 7154 \\ + 1720 \\ + 126 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 932 \\ + 1475 \\ + 3836 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 2346 \\ + 1108 \\ + 6453 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 3432 \\ + 2980 \\ + 231 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 3600 \\ + 994 \\ + 2222 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 7573 \\ + 0475 \\ + 1826 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 3462 \\ + 3214 \\ + 2562 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 4593 \\ + 3769 \\ + 765 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th H T O} \\ 2583 \\ + 483 \\ + 3257 \\ \hline \end{array}$$

ESTIMATION OF SUM

Estimation is a rough idea which you make without doing the actual calculation. Suppose you are asked to estimate or guess the answer $312 + 464$. Will it be less than 700 or more than 700 ?

You know that $300 + 400 = 700$.

As $312 > 300$, and $464 > 400$, the sum of $312 + 464$ will be more than the sum of $300 + 400$. So, you can estimate that it will be more than 700.

Now, when we actually add, we get 776 as the answer, which is more than 700.

	H	T	O
	3	1	2
+	4	6	4
	7	7	6

Exercise 2.4

Estimate the sum, and tick (✓) the appropriate option. Then solve the sum in each of the following and verify.

1.

	H	T	O
	6	2	5
+	1	4	2

 Less than 700
 More than 700

Answer : _____

2.

	H	T	O
	3	7	2
+	3	2	9

 Less than 650
 More than 650

Answer : _____

3.

	H	T	O
	1	8	2
+	1	0	7

 Less than 300
 More than 300

Answer : _____

4.

	H	T	O
	7	2	4
+	2	0	8

 Less than 900
 More than 900

Answer : _____

5.

	H	T	O
	2	2	2
+	3	4	8

 Less than 550
 More than 550

Answer : _____

6.

	Th	H	T	O
	3	4	2	7
+	5	4	6	2

 Less than 8000
 More than 8000

Answer : _____

WORD PROBLEMS

Example 1: In a shop, the sales in the first week was ₹ 2593 and the sales in the second week was ₹ 4398. What was the total sales in these two weeks ?

Solution :

$$\text{Sales in the first week} = ₹ 2593$$

$$\text{Sales in the second week} = ₹ 4398$$

$$\text{Total sales} = ₹ 2593 + ₹ 4398 = ₹ 6991$$

Thus, the total sales in the two weeks was ₹ 6991.

	Th	H	T	O
		1	1	
	2	5	9	3
+	4	3	9	8
	6	9	9	1

Example 2 : There are 4672 men, 2358 women and 1579 children in a village. What is the population of the village ?

Solution :

$$\text{Number of men} = 4672$$

$$\text{Number of women} = 2358$$

$$\text{Number of children} = 1579$$

$$\text{Total} = 4672 + 2358 + 1579 = 8609$$

Thus, the population of the village is 8609.

	Th	H	T	O
	1	2	1	
	4	6	7	2
+	2	3	5	8
+	1	5	7	9
	8	6	0	9

Exercise 2.5

1. A factory produced 3248 toys in one week and 3566 toys in the next week. How many toys did the factory produce in the two weeks ?
2. A milk van supplied 4359 packets and 3256 packets of milk in two booths. How many total number of packets of milk did the van supply ?
3. A fruit seller has 3468 apples, 2802 mangoes and 3285 oranges in his shop. How many fruits does he have in his shop ?

4. There are 835 children in primary classes, 638 children in middle classes and 595 children in secondary classes in a school. How many children are there in the school ?
5. A soap factory produced 3251, 2456 and 2378 soap cakes in three days. How many soap cakes were produced in all the three days ?
6. In a Gram Panchayat election, Ramesh got 2850 votes, Sohan got 3258 votes and Mohan got 2156 votes. 43 votes were rejected. How many votes were polled in all ?
7. There are 3735 cows, 2259 buffaloes and 1526 goats in a village. How many cattle are there in that village ?
8. A man has ₹ 2358 in one bank, ₹ 4328 in second bank and ₹ 2312 in third bank. Find the total money of the man he had in all the three banks.
9. Find the sum of the largest 3-digit number and the smallest 4-digit number.
10. 2345 people visited an exhibition on Monday, 2468 on Tuesday and 3229 on Wednesday. How many people in all visited the exhibition during the three days ?
11. A shopkeeper supplied 2403 cold drinks on Monday, 3215 cold drinks on Tuesday and 2829 cold drinks on Wednesday. How many total cold drinks were supplied in these three days by the shopkeeper ?
12. Add the following numbers in the three different ways :
 - a. 4345, 2432 and 735
 - b. 3485, 2485 and 1745
13. An aeroplane flies a distance of 2792 km on one day, 2445 km on the next day and 3200 km on the third day. Find the total distance (in km) covered by the aeroplane in all these three days.
14. A bulb factory produced 2438, 3258 and 2990 bulbs in three days respectively. Find the total number of bulbs produced in all the three days.
15. In a library, there are 2435 English books, 4378 Mathematics books, and 2198 Hindi books. Find the total number of books in the library.

WORKSHEET

A. Add these numbers.

1.

	Th	H	T	O
	7	5	6	
+	1	3	4	3
+	5	1	0	0

2.

	Th	H	T	O
	6	8	0	0
+		4	0	0
+	1	6	7	5

3.

	Th	H	T	O
	5	0	4	3
+	3	2	0	7
+		8	6	2

4.

	Th	H	T	O
	6	4	2	1
+	1	3	6	4
+	1	2	1	4

5.

	Th	H	T	O
	1	4	4	
+	1	3	9	9
+	2	6	6	0

6.

	Th	H	T	O
	3	3	3	
+	2	4	6	0
+		2	2	2

7.

	Th	H	T	O
		4	9	
+	2	1	0	5
+	3	9	0	0

8.

	Th	H	T	O
	1	2	1	3
+	2	6	7	8
+	4	4	3	2

B. Work out these in your notebook. Write the sum.

- | | |
|--|--|
| 1. $505 + 595 =$ <input type="text"/> | 2. $654 + 456 =$ <input type="text"/> |
| 3. $325 + 780 =$ <input type="text"/> | 4. $6980 + 2289 =$ <input type="text"/> |
| 5. $3848 + 5909 =$ <input type="text"/> | 6. $6378 + 967 =$ <input type="text"/> |
| 7. $3333 + 2135 =$ <input type="text"/> | 8. $363 + 1015 =$ <input type="text"/> |
| 9. $2043 + 5038 =$ <input type="text"/> | 10. $4852 + 3252 =$ <input type="text"/> |
| 11. $4207 + 3489 =$ <input type="text"/> | 12. $5107 + 398 =$ <input type="text"/> |

C. Solve these word problems.

- There are 5262 girls and 2416 boys in a college. Find the total number of students in the college.
- Sumit has 2084 stamps. His sister Sunidhi has 5018 stamps. How many stamps do they have altogether?
- What is 245 more than 5600?
- Raj spent ₹ 6243 on Monday and ₹ 246 on Tuesday. How much money did he spend altogether?

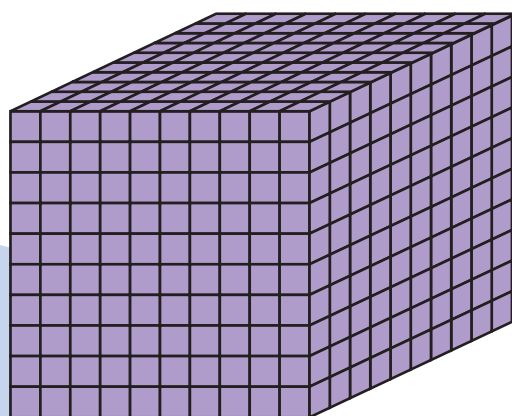
MATHS LAB

Objective : To add 3263 and 4758 using cubes (thousands), sheets (hundreds), strips (tens) and slips (ones)

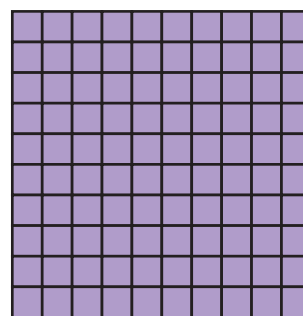
Materials Required : Use cubes, sheets, strips and slips from your Math kit.

Steps :

1. Ask students to make the two numbers using cubes, sheets, strips and slips and place them one below the other.
2. Ask them to put the ones together and count them. Since there are more than 10 ones, let them join 10 ones to make a ten and exchange it from 1 ten from the math kit. Carry the ten to the tens side.
3. Ask them to put the tens together and count them. Emphasise that the carried over ten should also be added.
4. Ask them to put the hundreds together and count them.
5. Ask them to put the thousands together and count them.
6. Now, ask them how many thousands, hundreds, tens and ones they have, and record the sum.



Cube



Sheet



Strip



Slip

7. Repeat the activity several times with different numbers.