



Addition and Subtraction of Bigger Numbers

What Learners Will Achieve

- Adding 3-digit numbers without regrouping
- Adding 3-digit numbers with regrouping
- Application of addition in real life
- Subtracting 3-digit numbers without regrouping
- Subtracting 3-digit numbers with regrouping
- Application of subtraction in real life
- Addition and subtraction together
- How to add and subtract quickly

Warm-up

What we already know

- Addition and subtraction of 2-digit numbers without and with regrouping up to 99

Malti used 32 red flowers and 18 yellow flowers in making a garland. How many total flowers did she use in all and which colour flowers are less used and by how much?



To find the total number of flowers used by Malti, we need to do addition, and to compare we need to do subtraction.

	T	O
	3	2
+	1	8
	5	0

	T	O
	32	18
-	18	8
	14	4

Thus, a total of 50 flowers are used in making the garland.

14 yellow flowers are used less than the red flowers.

Therefore, 50 flowers are used in all and 14 yellow flowers are used less than the red flowers.

Warm-up Exercise



1. Write '+' or '-' in the \bigcirc s.

(a)

T	O
5	2
1	0
6	2

\bigcirc +

(b)

T	O
9	9
1	5
8	4

\bigcirc -

(c)

T	O
3	4
1	9
1	5

\bigcirc -

(d)

T	O
2	2
1	9
4	1

\bigcirc +

2. Write the correct word in the blank rectangles from the given Word Bank.

Word Bank

Minuend Addend 1 Addend 2 Difference Sum Subtrahend

(a)

T	O
1	4
2	8
4	2

+ Addend 1
Addend 2
Sum

(b)

T	O
8	2
4	1
4	1

- Minuend
Subtrahend
Difference

3. Solve the following.

(a)

T	O
1	0
8	0
9	0

+

(b)

T	O
5	5
3	5
9	0

+

(c)

T	O
6	3
4	8
1	5

-

(d)

T	O
7	4
3	3
4	1

-

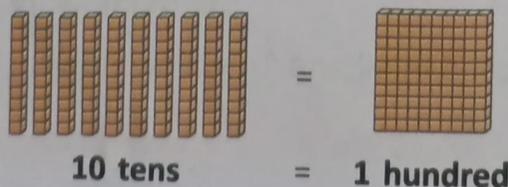
Adding Bigger Numbers

When the sum of 2-digit numbers is a 3-digit number

Vandan walked door to door 53 houses for the promotion of a new product on one day and 72 houses on the next day. How many houses did he walk on both the days?

To know the answer we first need to know how to regroup tens.

The picture alongside shows regrouping of tens to hundred.



Step 4: Now, Add the hundreds.

1 hundred (carried over) + no other hundreds = 1 hundred
Write 1 in the hundreds column.

So, the sum of 49 and 67 is 116.

Checkpoint 4A

1. Add by regrouping if necessary. One is done for you.

H	T	O
①		
	8	6
+	2	3
1	0	9

H	T	O
①		
	6	5
+	5	4
1	1	9

H	T	O
①		
	9	2
+	2	7
1	1	9

H	T	O
①		
	8	5
+	8	3
1	6	8

H	T	O
①		
	7	4
+	7	2
1	4	6

H	T	O
①		
	8	2
+	3	0
1	1	2

H	T	O
①		
	7	0
+	5	9
1	2	9

H	T	O
①		
	8	3
+	6	6
1	4	9

2. Add by regrouping ones into tens and tens into hundreds. One is done for you.

H	T	O
①	①	
	8	6
+	3	5
1	2	1

H	T	O
①	①	
	4	7
+	6	5
1	1	2

H	T	O
①	①	
	8	8
+	5	5
1	4	3

H	T	O
①	①	
	4	4
+	7	9
1	2	3

H	T	O
①	①	
	8	2
+	3	8
1	2	0

H	T	O
①	①	
	3	6
+	6	5
1	0	1

H	T	O
①	①	
	5	4
+	6	7
1	2	1

H	T	O
①	①	
	7	5
+	9	5
1	7	0

Adding 3-Digit Numbers without Regrouping

Siddhi read in the newspaper that two *chowkidars* from her village in the mountains were rewarded by the van panchayat. They were paid ₹421 each as an honorarium for their efforts in controlling a fire. Siddhi wanted to know what total amount was paid by the van panchayat to the two *chowkidars*.



Checkpoint 4B



Add:

1.

H	T	O
7	3	4
+	2	4
9	7	6

2.

H	T	O
7	0	0
+	1	0
8	0	0

3.

H	T	O
3	2	5
+	2	6
5	8	7

4.

H	T	O
4	3	4
+	2	4
6	7	9

5.

H	T	O
1	8	8
+	8	1
9	9	9

6.

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

7.

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

8.

H	T	O
3	3	3
+	4	4
7	7	7

9.

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

10.

H	T	O
1	0	0
+	7	1
8	1	7

11.

H	T	O
8	3	7
+	1	0
9	3	7

12.

H	T	O
2	1	6
+	2	0
4	1	6

Adding 3-Digit Numbers with Regrouping

Riddhi's village is declared Eco Village. Following persons were awarded cash prizes in pairs for their active efforts in the implementation of Eco-friendly development schemes.



- (a) Mohan got ₹ 325 and Sajid got ₹ 335.
- (b) John got ₹ 425 and Varun got ₹ 390.
- (c) Ram Singh got ₹ 428 and Jasmeet got ₹ 398.

Riddhi wanted to know what total amount was awarded to each pair.

- (a) Look at her steps of addition to know what the total amount Mohan and Sajid got.



Step 1: Add the ones.

$$5 \text{ ones} + 5 \text{ ones} = 10 \text{ ones}$$

Write 0 in the ones column and carry over 1 ten (= 10 ones) to the tens column.

H	T	O
	①	
3	2	5
+	3	3
		0

Example 3: Fill in the missing digits in

H	T	O
○	○	
1	6	5
2	6	9
○	○	○

Solution:

Carried over

H	T	O
①	①	
1	6	5
2	6	9
④	③	④

5 ones + 9 ones = 14 ones
 = 10 ones + 4 ones
 = 1 ten + 4 ones

1 ten (carried over) + 6 tens + 6 tens = 13 tens
 = 10 tens + 3 tens
 = 1 hundred + 3 tens

1 hundred (carried over) + 1 hundred
 + 2 hundreds = 4 hundreds

Carried over

Checkpoint 4C

1. Add the following by regrouping ones.

(a)	<table border="1"><thead><tr><th>H</th><th>T</th><th>O</th></tr></thead><tbody><tr><td>7</td><td>3</td><td>7</td></tr><tr><td>+</td><td>1</td><td>1</td></tr><tr><td></td><td>9</td><td></td></tr><tr><td>8</td><td>5</td><td>6</td></tr></tbody></table>	H	T	O	7	3	7	+	1	1		9		8	5	6
H	T	O														
7	3	7														
+	1	1														
	9															
8	5	6														
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H	T	O														
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+	1	3														
	3															
8	9	1														
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H	T	O														
4	2	5														
+	2	6														
	6															
6	9	1														
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H	T	O														
4	1	5														
+	4	5														
	7															
8	7	0														
(e)	<table border="1"><thead><tr><th>H</th><th>T</th><th>O</th></tr></thead><tbody><tr><td>1</td><td>7</td><td>8</td></tr><tr><td>+</td><td>6</td><td>0</td></tr><tr><td></td><td>2</td><td></td></tr><tr><td>7</td><td>8</td><td>0</td></tr></tbody></table>	H	T	O	1	7	8	+	6	0		2		7	8	0
H	T	O														
1	7	8														
+	6	0														
	2															
7	8	0														
(f)	<table border="1"><thead><tr><th>H</th><th>T</th><th>O</th></tr></thead><tbody><tr><td>4</td><td>1</td><td>6</td></tr><tr><td>+</td><td>1</td><td>3</td></tr><tr><td></td><td>7</td><td></td></tr><tr><td>5</td><td>5</td><td>3</td></tr></tbody></table>	H	T	O	4	1	6	+	1	3		7		5	5	3
H	T	O														
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+	1	3														
	7															
5	5	3														
(g)	<table border="1"><thead><tr><th>H</th><th>T</th><th>O</th></tr></thead><tbody><tr><td>4</td><td>1</td><td>9</td></tr><tr><td>+</td><td>3</td><td>4</td></tr><tr><td></td><td>6</td><td></td></tr><tr><td>7</td><td>6</td><td>5</td></tr></tbody></table>	H	T	O	4	1	9	+	3	4		6		7	6	5
H	T	O														
4	1	9														
+	3	4														
	6															
7	6	5														
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H	T	O														
1	3	3														
+	4	3														
	7															
5	7	0														

2. Add the following by regrouping tens.

(a)	<table border="1"><thead><tr><th>H</th><th>T</th><th>O</th></tr></thead><tbody><tr><td>7</td><td>6</td><td>0</td></tr><tr><td>+</td><td>1</td><td>5</td></tr><tr><td></td><td>9</td><td></td></tr><tr><td>9</td><td>1</td><td>9</td></tr></tbody></table>	H	T	O	7	6	0	+	1	5		9		9	1	9
H	T	O														
7	6	0														
+	1	5														
	9															
9	1	9														
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H	T	O														
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H	T	O														
4	1	1														
+	1	9														
	6															
6	0	7														
(d)	<table border="1"><thead><tr><th>H</th><th>T</th><th>O</th></tr></thead><tbody><tr><td>4</td><td>7</td><td>2</td></tr><tr><td>+</td><td>2</td><td>5</td></tr><tr><td></td><td>5</td><td></td></tr><tr><td>7</td><td>2</td><td>7</td></tr></tbody></table>	H	T	O	4	7	2	+	2	5		5		7	2	7
H	T	O														
4	7	2														
+	2	5														
	5															
7	2	7														

(e)

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

(f)

H	T	O
4	8	0
1	3	0
6	1	0

(g)

H	T	O
1	9	3
3	4	6
5	3	9

(h)

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

3. Add the following by regrouping both ones and tens.

(a)

H	T	O
7	3	7
1	7	9
9	1	6

(b)

H	T	O
5	6	8
1	3	3
7	0	1

(c)

H	T	O
4	8	5
2	2	6
7	1	1

(d)

H	T	O
4	8	5
4	5	5
9	4	0

(e)

H	T	O
1	7	8
6	6	2
8	4	0

(f)

H	T	O
4	6	6
2	3	7
7	0	3

(g)

H	T	O
4	5	9
3	4	6
8	0	5

(h)

H	T	O
1	3	5
4	7	7
6	1	2

Mind Grind

Fill two numbers from the "Given Numbers" in s such that:

1. Only regrouping of ones is required.

H	T	O
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
Sum _____		

Given Numbers

412 138
181

2. Only regrouping of tens is required.

H	T	O
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
Sum _____		

3. No regrouping is required.

H	T	O
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
Sum _____		

Also, find the sum in each case.

Did You Know?

132 is the smallest number which is the sum of all the 2-digit numbers that can be formed with its digits:

$$132 = 13 + 32 + 21 + 31 + 23 + 12$$

Addition Stories

Example 4: Nikhil and Mohit are brothers. Nikhil saved ₹ 345 and Mohit saved ₹ 486. How much total amount of money is saved by both brothers? (Holistic Learning Connection)

Solution: To find how much total amount of money is saved, we need to add ₹ 345 and ₹ 486.

$$\begin{array}{r} \text{Money saved by Nikhil} \\ \text{Money saved by Mohit} \\ \text{Money saved by both of them} \end{array} = \begin{array}{r} \\ + \\ = \end{array}$$

H	T	O
①	①	
3	4	5
4	8	6
8	①3	①1

Thus, both the brothers saved ₹ 831 in total.

Visualise the above problem as

Nikhil saved	Mohit saved
₹ 345	₹ 486
Both saved = ₹ 831	

Teacher's Support

Tell the students to read the addition stories carefully. Visualise or sense the whole problem. Understand what is asked in the problem to do. Look for the clue words that indicate the operation to be done.

Checkpoint 40

Solve the following.

- Shivalik runs a pet food store. He has 120 packets of dog food and 213 packets of cat food in his store. How many packets does he have in his store? 
- 254 ants were busy carrying sugar crystals. 189 more joined them. How many ants are now in all? 
- Noor packed 456 oranges. Alina packed 346 oranges. How many oranges were packed by both of them?
- 245 boys and 256 girls attended their school function. How many students attended the function?
- Mrinalini read two books during summer vacation. The books had 309 and 198 pages respectively. How many total pages did Mrinalini read in all? 
- 595 migratory birds were spotted in the Bharatpur Bird Sanctuary and 299 in the Rann of Kutch during last year. How many birds in all were spotted at both the places? (Conservation Connection)

Checkpoint-4D.

Page No.

Date

- ① No. of dog food packets = 120
No. of cat food packets = 213

$$\begin{array}{r} \text{H T O} \\ 120 \\ + 213 \\ \hline 333 \end{array}$$

Ans- He has 333 packets in his store.

- ② No. of ants carrying sugar crystals = 254
No. of ants joined them = 189

$$\begin{array}{r} \text{① ①} \\ \text{H T O} \\ 254 \\ + 189 \\ \hline 443 \end{array}$$

Ans- There are 443 ants in all.

- (3) No. of oranges Noor packed = 456
 No. of oranges Alina packed = 346

$$\begin{array}{r}
 \textcircled{1} \quad \textcircled{1} \\
 \text{H} \quad \text{T} \quad \text{O} \\
 4 \quad 5 \quad 6 \\
 + 3 \quad 4 \quad 6 \\
 \hline
 8 \quad 0 \quad 2
 \end{array}$$

Ans- 802 oranges were packed by both of them.

- (4) No. of boys = 245
 No. of girls = 256

$$\begin{array}{r}
 \textcircled{1} \quad \textcircled{1} \\
 \text{H} \quad \text{T} \quad \text{O} \\
 2 \quad 4 \quad 5 \\
 + 2 \quad 4 \quad 6 \\
 \hline
 5 \quad 0 \quad 1
 \end{array}$$

Ans- 501 students attended the function.

- ⑤. No. of pages in one book = 309.
No. of pages in another book = 198.

$$\begin{array}{r}
 \textcircled{1} \quad \textcircled{1} \\
 \text{H} \quad \text{T} \quad \text{O} \\
 3 \quad 0 \quad 9 \\
 + 1 \quad 9 \quad 8 \\
 \hline
 5 \quad 0 \quad 7
 \end{array}$$

Ans - Meenakshi read 507 pages in all.

- ⑥ No. of migratory birds spotted in Bharatpur bird sanctuary = 595.
No. of birds spotted in Rann of Kutch = 299.

$$\begin{array}{r}
 \textcircled{1} \quad \textcircled{1} \\
 \text{H} \quad \text{T} \quad \text{O} \\
 5 \quad 9 \quad 5 \\
 + 2 \quad 9 \quad 9 \\
 \hline
 8 \quad 9 \quad 4
 \end{array}$$

Ans - 894 birds were spotted at both the places.

Example 5: Following are the 4 subtraction sums written below. Spot the sums in which numbers are not aligned by place values. Do corrections in the wrong sums.

(a)	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td>7</td><td>3</td><td>8</td></tr><tr><td>-</td><td></td><td>1 7</td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O	7	3	8	-		1 7			
H	T	O											
7	3	8											
-		1 7											

(b)	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td>2</td><td>7</td><td>6</td></tr><tr><td>-</td><td></td><td>5</td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O	2	7	6	-		5			
H	T	O											
2	7	6											
-		5											

(c)	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td>1</td><td>6</td><td>7</td></tr><tr><td>-</td><td>1</td><td>1</td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O	1	6	7	-	1	1			
H	T	O											
1	6	7											
-	1	1											

(d)	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td>7</td><td>6</td><td>5</td></tr><tr><td>-</td><td>5</td><td></td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O	7	6	5	-	5				
H	T	O											
7	6	5											
-	5												

Solution: Numbers are correctly aligned in (a) and (b) but in (c) and (d) numbers are not arranged in proper place value columns.

(c) and (d) after corrections are as follows.

(c)	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td>1</td><td>6 7</td></tr><tr><td>-</td><td></td><td>1 1</td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O		1	6 7	-		1 1			
H	T	O											
	1	6 7											
-		1 1											

(d)	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td>7</td><td>6</td><td>5</td></tr><tr><td>-</td><td></td><td>5</td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O	7	6	5	-		5			
H	T	O											
7	6	5											
-		5											

Watch Your Step!



T	O	O
1	9	8
-	1	0
	9	8

It is not correct.

T	O	O
1	9	8
-		1 0
	1	8 8

It is correct.

Checkpoint 4E



1. Subtract the following.

(a)	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td>6</td><td>4</td><td>7</td></tr><tr><td>-</td><td></td><td>4 0</td></tr><tr><td></td><td>6</td><td>0 7</td></tr></table>	H	T	O	6	4	7	-		4 0		6	0 7
H	T	O											
6	4	7											
-		4 0											
	6	0 7											

(b)	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td>1</td><td>8</td><td>8</td></tr><tr><td>-</td><td>1</td><td>2 5</td></tr><tr><td></td><td>0 6</td><td>3</td></tr></table>	H	T	O	1	8	8	-	1	2 5		0 6	3
H	T	O											
1	8	8											
-	1	2 5											
	0 6	3											

(c)	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td>6</td><td>0</td><td>7</td></tr><tr><td>-</td><td>4</td><td>0 3</td></tr><tr><td></td><td>2</td><td>0 4</td></tr></table>	H	T	O	6	0	7	-	4	0 3		2	0 4
H	T	O											
6	0	7											
-	4	0 3											
	2	0 4											

(d)	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td>9</td><td>6</td><td>9</td></tr><tr><td>-</td><td>8</td><td>5 6</td></tr><tr><td></td><td>1</td><td>1 3</td></tr></table>	H	T	O	9	6	9	-	8	5 6		1	1 3
H	T	O											
9	6	9											
-	8	5 6											
	1	1 3											

2. Write the numbers by their place values in appropriate columns and subtract.

(a) $818 - 7$

H	T	O
8	1	8
-		7
	8	1 1

(b) $487 - 56$

H	T	O
4	8	7
-		5 6
	4	3 1

(c) $247 - 31$

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

Example 6: Subtract 128 from 983.

Solution: Write 128 below 983 in proper place value columns.

Step 1: Subtract the ones.

Since 8 ones $>$ 3 ones, so, regroup 8 tens as 7 tens + 10 ones. We get,

10 ones + 3 ones = 13 ones.

Now, 13 ones $-$ 8 ones = 5 ones

Write 5 in the ones column.

	H	T	O
		7	13
	9	8	3
$-$	1	2	8
	8	5	5

Step 2: Subtract the tens.

7 tens $-$ 2 tens = 5 tens. Write 5 in the tens column.

Step 3: Subtract the hundreds.

9 hundreds $-$ 1 hundred = 8 hundreds. Write 8 in the hundreds column.

Thus, $983 - 128 = 855$.

Checkpoint 4F

Subtract the following.

1.

	H	T	O
	6	5	4
$-$	1	2	8
	5	2	6

2.

	H	T	O
	1	5	1
$-$	1	2	5
	0	2	6

3.

	H	T	O
	9	2	1
$-$	1	0	7
	8	1	4

4.

	H	T	O
	9	8	6
$-$	7	2	9
	2	5	7

5.

	H	T	O
	8	2	1
$-$	3	0	9
	5	1	2

6.

	H	T	O
	7	4	1
$-$	4	1	9
	3	2	8

7.

	H	T	O
	5	7	6
$-$	4	2	9
	1	4	7

8.

	H	T	O
	3	4	4
$-$	1	2	7
	2	1	7

Subtracting 3-Digit Numbers with Regrouping of Tens and Hundreds

My mother is a doctor. She visits the Old Age Home regularly. Since she started, she has done medical check-ups of 423 persons there. If she checked 189 women, then how many men did she check?



Teacher's Support

Recall that 'regrouping' is 'borrowing' and give sufficient practice of regrouping of tens in a number of ways like 3 tens = 2 tens + 10 ones or 1 ten + 20 ones or 30 ones.

Checkpoint 4G



Subtract the following.

1.

H	T	O
8	2	1
-		
5	5	3

2	8	8

2.

H	T	O
7	5	6
-		
6	9	7

0	5	9

3.

H	T	O
5	3	5
-		
2	6	5

2	7	0

4.

H	T	O
1	7	9
-		
1	5	8

0	2	1

5.

H	T	O
6	7	8
-		
2	7	9

3	9	9

6.

H	T	O
5	6	7
-		
3	7	6

1	9	1

7.

H	T	O
7	7	7
-		
2	8	8

4	8	9

8.

H	T	O
4	5	3
-		
2	6	4

1	8	9

Checking Subtraction

Nisha subtracted 224 from 882 as shown. To know whether her subtraction is correct or not, she added the subtrahend and the difference.

H	T	O	
	⑦	⑫	
8	8	2	← Minuend
-			← Subtrahend
2	2	4	← Difference

6	5	8	

H	T	O	
	①		
2	2	4	← Subtrahend
+			← Difference
6	5	8	← Minuend

8	8	2	

Since, she gets the sum equal to the minuend of the original subtraction problem, so her subtraction is correct.

Example 8: Check the given subtraction using addition.

H	T	O
	⑧	⑬
4	9	3
-		
1	8	5

3	0	8

Solution:

Subtraction	→	Checking using addition																																												
<table border="1" style="display: inline-table; text-align: center;"> <tr><th>H</th><th>T</th><th>O</th></tr> <tr><td></td><td>⑧</td><td>⑬</td></tr> <tr><td>4</td><td>9</td><td>3</td></tr> <tr><td colspan="3">-</td></tr> <tr><td>1</td><td>8</td><td>5</td></tr> <tr><td colspan="3">-----</td></tr> <tr><td>3</td><td>0</td><td>8</td></tr> </table>	H	T	O		⑧	⑬	4	9	3	-			1	8	5	-----			3	0	8	<table style="display: inline-table; text-align: center;"> <tr><td>+</td></tr> <tr><td>-----</td></tr> </table>	+	-----	<table border="1" style="display: inline-table; text-align: center;"> <tr><th>H</th><th>T</th><th>O</th></tr> <tr><td></td><td>①</td><td></td></tr> <tr><td>1</td><td>8</td><td>5</td></tr> <tr><td colspan="3">+</td></tr> <tr><td>3</td><td>0</td><td>8</td></tr> <tr><td colspan="3">-----</td></tr> <tr><td>4</td><td>9</td><td>3</td></tr> </table>	H	T	O		①		1	8	5	+			3	0	8	-----			4	9	3
H	T	O																																												
	⑧	⑬																																												
4	9	3																																												
-																																														
1	8	5																																												

3	0	8																																												
+																																														

H	T	O																																												
	①																																													
1	8	5																																												
+																																														
3	0	8																																												

4	9	3																																												

Since, the minuend of the original subtraction = subtrahend + difference, thus, the given subtraction is correct.

Checkpoint 4H



Subtract and check whether the difference obtained is correct or not.

1.

H	T	O
8	1	0
-	7	7
0	3	3

+

H	T	O
7	7	7
	3	3
8	1	0

2.

H	T	O
5	5	5
-	1	6
3	8	9

+

H	T	O
1	6	6
3	8	9
5	5	5

3.

H	T	O
1	9	3
-		8
1	0	6

+

H	T	O
	8	7
1	0	6
1	9	3

4.

H	T	O
6	7	6
-	3	9
2	7	7

+

H	T	O
3	9	9
2	7	7
6	7	6

Subtraction Stories

Example 9: Nikhil and Mohit are brothers. Both of them together saved ₹ 940. If Nikhil saved ₹ 445, then how much did Mohit save?

Solution: To find how much is saved by Mohit, we subtract ₹ 445 from ₹ 940.

Money saved by Nikhil and Mohit =
 Money saved by Nikhil = -
 Money saved by Mohit =

H	T	O
	13	
8	3	10
9	4	0
4	4	5
4	9	5

Thus, Mohit saved ₹ 495.

Visualise the given problem as

Nikhil saved	Mohit saved
₹ 445	?
Both saved ₹ 940.	

Checkpoint 4I



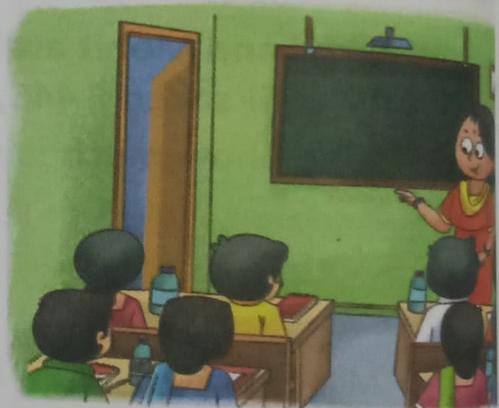
1. A supermarket has 584 packets of frozen food. 362 packets are sold out. How many packets are not sold?
2. A chef served a total of 575 guests in two weeks. If he served 208 guests last week, how many guests did he serve this week?
3. A book has 432 pages. Bookworms spoiled 208 pages. How many pages are still in good condition?
4. Sanaya scored 368 marks. Naved scored 334 marks. How many more marks did Sanaya score than Naved?
5. Naira did a subtraction sum as: $384 - 259 = 125$. Check if the difference is correct using addition.



Subtracting 3-Digit Numbers with Zeros

A school invited 500 parents for a parents workshop. 254 parents arrived before time. How many parents are yet to arrive?

In order to know how many parents are yet to arrive, we subtract 254 from 500 following the given steps.



Step 1: Write the smaller number 254 below the bigger number 500 in proper place value columns.

Step 2: In the ones column, $4 > 0$. So, we have to regroup the tens. But there are 0 tens. So, regroup the hundreds. 5 hundreds = 4 hundreds + 10 tens

Step 3: Regroup the tens as 10 tens = 9 tens + 10 ones. Now, subtract the ones. $10 \text{ ones} - 4 \text{ ones} = 6 \text{ ones}$

Step 4: Subtract the tens. $9 \text{ tens} - 5 \text{ tens} = 4 \text{ tens}$

Step 5: Subtract the hundreds. $4 \text{ hundreds} - 2 \text{ hundreds} = 2 \text{ hundreds}$. So, $500 - 254 = 246$ parents yet to arrive.

	H	T
		0
	4	0
-	2	5
	2	4

Checkpoint - 4I

Page No.

Date

- ① . No. of total packets = 584 .
No. of packets sold = 362 .

$$\begin{array}{r} \text{H T O} \\ 584 \\ - 362 \\ \hline 222 \end{array}$$

Ans. 222 packets are not sold.

- ② Chef served ~~5~~ no. of guests,
in two week = 575
in last week = 208 .

⑧ ⑮ .

$$\begin{array}{r} \text{H T O} \\ 575 \\ - 208 \\ \hline 367 \end{array}$$

Ans. He served 367 guests this week.

③ No. of total pages = 432
 No. of pages spoiled = 208

$$\begin{array}{r}
 \text{②} \quad \text{⑫} \\
 \text{H} \quad \text{T} \quad \text{O} \\
 4 \quad 3 \quad 2 \\
 - 2 \quad 0 \quad 8 \\
 \hline
 2 \quad 2 \quad 4
 \end{array}$$

Ans- 224 pages are in good conditions.

④ . Marks scored by,
 Sanaya = 368
 Naved = 334

$$\begin{array}{r}
 \text{H} \quad \text{T} \quad \text{O} \\
 3 \quad 6 \quad 8 \\
 - 3 \quad 3 \quad 4 \\
 \hline
 0 \quad 3 \quad 4
 \end{array}$$

Ans- Sanaya scored 34 marks more than Naved.

5.

	H	T	O	
		7	14	
	3	8	4	— (I)
—	2	5	9	— (II)
	<u>1</u>	<u>2</u>	<u>5</u>	— (III)

Checking the difference by addition,

	H	T	O	
	2	5	9	— (II)
+	1	2	5	— (III)
	<u>3</u>	<u>8</u>	<u>4</u>	— (I)

Ans. It is correct.

Fill in the digits in the blank circles to make the subtraction sum correct.

1.

	H	T	O
		10	
	7	0	0
-	3	3	3
	○	○	○

2.

	H	T	O
		○	
	9	0	10
-		0	0
		○	○
	8	0	1



Example 10: Subtract 173 from 400 using the guidelines.

Solution:

Guidelines:

- Arrange the numbers in correct place value columns and subtract columnwise.

- Since, $0 < 3$, regroup tens.

But there are 0 tens. So, borrow 1 hundred from 4 hundreds leaving behind 3 hundreds in hundreds column.

4 hundreds = 3 hundreds + 10 tens

Now, we borrow 1 ten from 10 tens leaving behind 9 tens in tens column. Then, subtract the ones.

10 ones - 3 ones = 7 ones

- Subtract the tens.

9 tens - 7 tens = 2 tens

- Subtract the hundreds.

3 hundreds - 1 hundred = 2 hundreds

Thus, $400 - 173 = 227$.

	H	T	O
		9	
	3	10	10
	4	0	0
-	1	7	3
	2	2	7

Checkpoint 4J



Solve the following.

1.

	H	T	O
	2	9	10
	3	0	0
-		2	8
	2	7	2

2.

	H	T	O
	7	9	10
	8	0	0
-	3	5	1
	4	4	9

3.

	H	T	O
	8	10	10
	9	0	0
-	8	9	0
	0	1	0

4.

	H	T	O
	0	9	10
	1	0	0
-		2	3
	0	7	7

Addition or Subtraction

Some commonly used addition and subtraction key words are displayed in the boxes which are helpful to indicate which operation '+' or '-' to use in addition and subtraction situations in real life.

'+' Key Words

total, sum, more, join, altogether, plus, both, in all

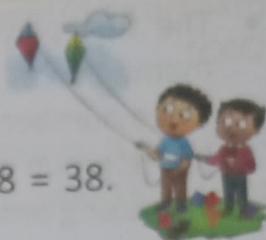
'-' Key Words

left, remaining, do not, take away, still, how many more, difference

Example 11: Raghu has 20 kites and Ketan has 18 kites. How many kites do they have in all?

Solution: Key word: in all

So, we will perform addition here. That is, $20 + 18 = 38$. Thus, both have 38 kites in all.



Example 12: Bunny and Della are two rabbits. Bunny eats 19 carrots in a day and Della eats 8 carrots in a day. How many more carrots does Bunny eat?

Solution: Key word: How many more

So, we will perform subtraction here. That is, $19 - 8 = 11$. Thus, Bunny eats 11 more carrots.

Checkpoint 4K

Underline the key words in the following questions that help you to decide whether it is a addition or a subtraction situation. Also, find the sum or difference accordingly.

1. There were 452 compostable disposable glasses for the staff. Last week 134 were used. How many glasses are left now? **(Conservation Connect)**
2. In a school of 528 students, 392 students avail the school transport. How many students do not avail the school transport?
3. Sukhi Lal earned ₹ 240 on Monday and ₹ 238 on Tuesday. How much did he earn on both the days?
4. A store has 156 shirts and 109 trousers. How many garments are there in the store in all?
5. There were 120 people in a queue. 27 people dodged the queue. How many people did not dodge the queue?



Let Us Assess

1. What are the missing digits in the circles?

(a)

	H	T	O
	5	8	2
-	1	1	4
	4	6	8

(b)

	H	T	O
	6	2	0
-	1	7	6
	4	4	4

(c)

	H	T	O
	9	6	0
-	1	7	3
	7	8	8

2. There are 110 apple trees, 56 pear trees and 242 custard apple trees in an orchard. (CBQ)

- How many total trees are there in the orchard?
 - How many custard apple trees are more than the sum of other two fruit trees?
- In an archery competition, team A scored 205 points and team B scored 182 points. Which team won and by how many points?
 - There were 742 people in a train. 100 men, 101 women and 39 children got off at the next station. How many people are left in the train now?
 - What is 126 more than 590?
 - What must be added to 134 to get 584?
 - Write a real life addition situation that uses $100 + 558 = 658$ and the key word 'combine'.
 - Write a real life subtraction situation that uses $900 - 400 = 500$ and the key word 'how many more'.

21st CS

HOTS

Saira started with number 145. She kept on subtracting 10, every time from 145. Would she get the answer 5 at last? If yes, then how many times did she subtract 10 from 145 to get 5 at last?

Objective Moves

Tick (✓) the correct option.

- $189 + 70 =$ _____
 - 889
 - 119
 - 259
- $898 - 89 =$ _____
 - 8
 - 809
 - 987
- $999 + 0 - 999 =$ _____
 - 999
 - 0
 - 100

Let us Assess

- ② (a) No. of apple trees = 110
 No. of pear trees = 56
 No. of custard trees = 242

$$\begin{array}{r}
 \text{H} \quad \text{T} \quad \text{O} \\
 1 \quad 1 \quad 0 \\
 \quad \quad 5 \quad 6 \\
 + \quad 2 \quad 4 \quad 2 \\
 \hline
 4 \quad 0 \quad 8
 \end{array}$$

Ans. There are 408 trees in the orchard.

- (b) No. of apple trees = 110
 No. of pear trees = 56

$$\begin{array}{r}
 \text{H} \quad \text{T} \quad \text{O} \\
 1 \quad 1 \quad 0 \\
 + \quad \quad 5 \quad 6 \\
 \hline
 1 \quad 6 \quad 6
 \end{array}$$

Sum of both trees = 166.

No. of custard apple trees = 242
 No. of sum of other two trees = 166

$$\begin{array}{r}
 \textcircled{1} \quad \textcircled{13} \quad \textcircled{12} \\
 \text{H} \quad \text{T} \quad \text{O} \\
 \cancel{2} \quad \cancel{4} \quad \cancel{2} \\
 \hline
 = 1 \quad 6 \quad 6 \\
 \hline
 \underline{\underline{0 \quad 7 \quad 6}}
 \end{array}$$

Ans. - 16 custard apple trees are more than the sum of other two trees.

③. Points scored by,
 team A = 205
 team B = 182

$$\begin{array}{r}
 \textcircled{1} \quad \textcircled{10} \\
 \text{H} \quad \text{T} \quad \text{O} \\
 \cancel{2} \quad \cancel{0} \quad \cancel{5} \\
 \hline
 = 1 \quad 8 \quad 2 \\
 \hline
 \underline{\underline{0 \quad 2 \quad 3}}
 \end{array}$$

Ans. - Team A scored ~~23~~ won by 23 points.

(4) Total no. of people in train = 742
 No. of people got off at the next station;

men = 100

women = 101

Children = 39

Total no. of people got off at the
 next station = H T O

$$\begin{array}{r}
 \textcircled{1} \\
 \downarrow \quad 0 \quad 0 \\
 \downarrow \quad 0 \quad 1 \\
 + \quad \quad 3 \quad 9 \\
 \hline
 \underline{\underline{2 \quad 4 \quad 0}}
 \end{array}$$

Total no. of people in train = 742 .
 No. of people got off at next station = 240

$$\begin{array}{r}
 H \quad T \quad O \\
 7 \quad 4 \quad 2 \\
 - 2 \quad 4 \quad 0 \\
 \hline
 \underline{\underline{5 \quad 0 \quad 2}}
 \end{array}$$

Ans - 502 people are left in the train
 now.