

# 4

## Subtraction of Smaller Numbers

**Subtraction** means taking away a number from a larger group. The symbol of subtraction is ‘-’ (**minus**).

$8 - 6 = 2$ . It is read as 6 subtracted from 8 is 2 or simplifying 8 minus 6 is 2. It is also read as the difference of 8 minus 6 is 2.

The number which is to be subtracted is called **subtrahend** and the number from which it is subtracted is called **minuend**. The answer is known as **difference**.

6	→	Minuend
- 2	→	Subtrahend
4	→	Difference



### Properties of Subtraction

- ❖ **When 0 is subtracted from a number, the difference is the number itself.**

	-	0	=	
5	-	0	=	5



❖ When 1 is subtracted from a number, the difference is the number just before the given number..

$$\begin{array}{ccc}
 \begin{array}{|c|} \hline \star \star \star \star \\ \star \star \star \\ \hline \end{array} & - & \begin{array}{|c|} \hline \star \\ \hline \end{array} & = & \begin{array}{|c|} \hline \star \star \star \\ \star \star \star \\ \hline \end{array} \\
 \boxed{7} & - & \boxed{1} & = & \boxed{6}
 \end{array}$$

❖ When a number is subtracted from itself, the difference is 0.

$$\begin{array}{ccc}
 \begin{array}{|c|} \hline \text{Cup} \text{ Cup} \text{ Cup} \\ \text{Cup} \text{ Cup} \text{ Cup} \\ \hline \end{array} & - & \begin{array}{|c|} \hline \text{Cup} \text{ Cup} \text{ Cup} \\ \text{Cup} \text{ Cup} \text{ Cup} \\ \hline \end{array} & = & \begin{array}{|c|} \hline 0 \\ \hline \end{array} \\
 \boxed{6} & - & \boxed{6} & = & \boxed{0}
 \end{array}$$



## To Write Numbers in Columns and Subtract

### Subtraction without Borrowing

First take the bigger number. Write it above the smaller number. Then, subtract the smaller number from the bigger number.

46 78 ← Bigger

T	O
7	8
- 4	6
<hr/>	
3	2

Bigger → 86 43

T	O
8	6
- 4	3
<hr/>	
4	3

75 98 ← Bigger

T	O
9	8
- 7	5
<hr/>	
2	3



## Exercise 4.1



### A. Subtract the smaller number from the bigger number.

1. 54, 68

T	O
54	68
-	

2. 32, 85

T	O
32	85
-	

3. 53, 22

T	O
53	22
-	

4. 27, 15

T	O
27	15
-	

5. 76, 86

T	O
76	86
-	

### B. Subtract the following.

1.

T	O
76	
-	53

2.

T	O
98	
-	48

3.

T	O
69	
-	55

4.

T	O
67	
-	21

5.

T	O
58	
-	43



### Facts to Know

- ❖ In subtraction, the smaller number is always subtracted from the bigger number.
- ❖ We always write the bigger number above the smaller number in subtraction.



## Word Problems

**Example I :** Tanya took 43 beads from a box of 86 to make a necklace. How many beads are left in the box now?





**Solution :**

Number of beads in the box	→	<b>T</b>	<b>O</b>
Number of beads Tanya took	→ -	8	6
Number of beads left	→	4	3

Therefore, 43 beads are left in the box now.

**Example II :** A book contains 67 chapters. Shobhit has read 45 chapters. How many chapters he still has to read?

**Solution :**

Number of chapters in the book	→	<b>T</b>	<b>O</b>
Number of chapters Shobhit has read	→ -	6	7
Number of chapters left	→	4	5
		2	2

Therefore, 22 chapters Shobhit still has to read.



## Exercise 4.2

**Solve the following word problems.**

- In a bag of 68 fruits, 35 are peach. How many guavas are there in the bag?

Number of fruits in the bag	→	<b>T</b>	<b>O</b>
Number of peach	→ -		
Number of guavas	→		

- In a garden there are 88 trees out of which 46 trees are cut down by wood cutter. Find the number of trees left in the garden?
- Chirag has 92 rupees. He lost 38 rupees. How many rupees does Chirag have now?
- Sumit got 82 marks in a test. Payal got 73 marks. How many more marks did Sumit get than Payal?
- Rajan bought 38 mangoes. His sister ate 16 mangoes out of them. How many mangoes does Rajan have now?







## Regrouping of Numbers



Sometimes, when you subtract, you may not have enough ones. Then, you have to regroup **1 ten** to **10 ones** and add them to the ones column.

**For Example :**

$$36 = 30 + 6 = 3 \text{ tens} + 6 \text{ ones}$$

Let us write "1 ten" as "10 ones".

$$3 \text{ tens} + 6 \text{ ones} = 2 \text{ tens} + 16 \text{ ones}$$



## Subtraction with Regrouping

**Example III :** Subtract 54 from 62.

**Solution :**

**Step 1 :** We subtract the ones first. But we can not subtract 4 from 2. Let us regroup 62.

Now,  $62 = 6 \text{ tens} + 2 \text{ ones} = 5 \text{ tens} + 12 \text{ ones}$ .

Cross out 6 in the tens column and write 5.

Then,  $12 \text{ ones} - 4 \text{ ones} = 8 \text{ ones}$ .

Write 8 in the ones column.

**Step 2 :** Then, subtract the tens.

$5 \text{ tens} - 6 \text{ tens} = 0 \text{ ten}$

Write 0 in the tens column.

Therefore,  $62 - 54 = 8$ .

	T	O
5	<del>6</del>	<sup>12</sup> <del>2</del>
-	5	4
	0	8



### Facts to Know

❖ Subtraction with regrouping is also called subtraction with borrowing.





## Exercise 4.3

Subtract each of the following. Regroup the numbers if needed.

$$\begin{array}{r} \text{T O} \\ 85 \\ - 57 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T O} \\ 74 \\ - 58 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T O} \\ 55 \\ - 37 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T O} \\ 63 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T O} \\ 76 \\ - 49 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T O} \\ 98 \\ - 79 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T O} \\ 83 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T O} \\ 43 \\ - 18 \\ \hline \end{array}$$



## Comparing with the help of Subtraction

With the help of subtraction, we can compare two numbers and find out by how much one number is greater than the other.

**Example IV :** Veenu has 17 dolls and Daman has 23 dolls. Who has more dolls and how many more dolls does she have?

**Solution :**

Veenu has	→	$\begin{array}{r} \text{T O} \\ 23 \\ - 17 \\ \hline 06 \end{array}$	dolls.
Daman has	→ -	$\begin{array}{r} \text{T O} \\ 17 \\ - 23 \\ \hline \end{array}$	dolls.
Veenu has	→	$\begin{array}{r} \text{T O} \\ 06 \\ \hline \end{array}$	dolls more.

Therefore, Veenu has 6 dolls more than Daman.

**Note :** We arrange the bigger number above the smaller number to find the difference.



## Exercise 4.4

Solve the following word problems.

- Ritika walked 76 steps to the gate and Sonam walked 54 steps to the same gate. How many more steps did Ritika walk?





- In section 2 A, there were 57 children and in section 2 B, there were 34 children. How many more children were there in section 2 A?
- Sakshi picked 94 flowers and Shweta picked 63 flowers. How many more flowers did Sakshi pick?
- In a basket there were 37 grapes and 14 oranges. How many more grapes were there in the basket?
- The cost of a jacket is ₹ 84 and the cost of a jeans is ₹ 68. What is the difference of cost between jacket and jeans.



## Checking Subtraction using Addition

**Example V :** Subtract 26 from 52 and check the answer.

We need to regroup 52 as we cannot subtract 6 from 2. On taking 1 ten from the tens column, we get 4 in the tens column and 12 in the ones column.

12 ones – 6 ones = 6 ones and

4 tens – 2 tens = 2 tens

Therefore,  $52 - 26 = 26$ .

T	O
<sup>4</sup> <del>5</del>	<sup>12</sup> <del>2</del>
– 2	6
2	6

How can we check, whether this answer is correct?

The method is simple.

We will add the difference of the two numbers to the number we subtracted. So, we add 26 to 26. The answer we get is 52.

T	O
<sup>1</sup> 2	6
+ 2	6
5	2

So, our subtraction was done correctly.

✓ If  $98 - 61 = 37$  then  $61 + \boxed{37} = 98$ .

✓ If  $72 - 38 = 34$  then  $38 + \boxed{34} = 72$ .

✓ If  $20 - 18 = 2$  then  $18 + \boxed{2} = 20$ .





## Exercise 4.5

### A. Fill in the boxes.

1. If  $54 - 27 = 27$  then  $\square + 27 = 54$

2. If  $62 - 38 = 24$  then  $\square + 24 = 62$

3. If  $99 - 88 = 11$  then  $88 + \square = 99$

4. If  $55 - 26 = 29$  then  $26 + 29 = \square$

5. If  $38 - 24 = 14$  then  $24 + \square = 38$

### B. Subtract and then check your answer.

1. 

T O	T O
5 4	
- 2 2	+ 2 2
_____	_____

2. 

T O	T O
8 2	
- 6 8	+ 6 8
_____	_____

3. 

T O	T O
8 0	
- 4 6	+ 4 6
_____	_____

4. 

T O	T O
7 6	
- 3 8	+ 3 8
_____	_____



## Addition and Subtraction

- ❖ While solving word problems, sometimes it is not clear whether we have to add or subtract. If the question is in the form of “How many are left?” or “How many more books or toys are ....?”, it is a subtraction sum. Out of a total number of things, if the number of one kind is given and the number of the other kind is to be found out, it is also a subtraction sum.





❖ Addition sums generally ask questions like “What is the total number of ....?” or “How many in all?” or “How many ... altogether?” etc.

As you solve more and more word problems, it will become easier for you to identify the addition or subtraction sums.

**Read and follow if we have to add or subtract.**

1. Priyanka had 86 sweets. She gave 68 to her sister. How many sweets were left with Priyanka?

This is a subtraction sum as the question asked is “How many are left?”

2. Pradeep bought 70 oranges and his brother bought 48 oranges. How many oranges were there in total?

This is an addition sum as the question asked is “How many altogether?”

3. In a village there are 96 people. If 52 are adults, how many children are there in all?

This is a subtraction sum, as out of the total number, the number of a certain kind (number of adults) is given. We have to find out the number of the other kind (number of children).

**Solve the above sums here.**

1. 

	T	O
	8	6
–	6	8

2. 

	T	O
+		

3. 

	T	O
–		

*Answer : .....*

*Answer : .....*

*Answer : .....*



## Exercise 4.6

Read the word problems carefully and decide if we have to add or subtract. Solve the sums in your notebook.

1. Sandhya wrote 53 pages of a copy in the morning and 21 pages in the afternoon. How many pages did she write in all?

**T O**  
+

2. In a class, there are 87 students. Of these, 57 students are boys and the rest are girls. How many girls are there in the class?

**T O**  
-

3. Shanu has 53 books and Sudeep has 28 books. How many more books does Shanu have?

**T O**  
-

4. In a tree there are 69 yellow mangoes and 53 green mangoes. How many mangoes are there in the tree in all?

**T O**  
+

5. Bhavik has 43 video games. His sister Bhawna has 28 video games. How many video games do they have in all?

**T O**  
+





## Points to Remember



- ❖ Subtraction means taking away a number from a larger group.
- ❖ The number which is to be subtracted is called subtrahend.
- ❖ The number from which it is subtracted is called minuend.
- ❖ When 0 is subtracted from a number, answer is the same number.
- ❖ The larger number will always be above the smaller number, in subtraction.



## EXERCISE

### A. Multiple Choice Questions (MCQs)

Tick (✓) the correct option :

1. The answer of subtraction is called .....
 

(i) minuend <input type="checkbox"/>	(ii) subtrahend <input type="checkbox"/>
(iii) difference <input type="checkbox"/>	(iv) sum <input type="checkbox"/>
  
2. When zero is subtracted from a number, the difference is .....
 

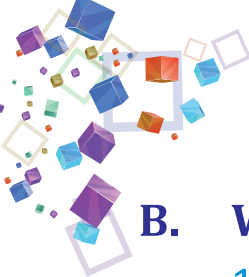
(i) 1 <input type="checkbox"/>	(ii) number itself <input type="checkbox"/>
(iii) zero <input type="checkbox"/>	(iv) none of these <input type="checkbox"/>
  
3. 39 subtracted from 85 is equal to .....
 

(i) 124 <input type="checkbox"/>	(ii) 36 <input type="checkbox"/>
(iii) 46 <input type="checkbox"/>	(iv) 64 <input type="checkbox"/>
  
4. 46 subtracted from 97 is equal to .....
 

(i) 0 <input type="checkbox"/>	(ii) 51 <input type="checkbox"/>
(iii) 61 <input type="checkbox"/>	(iv) 143 <input type="checkbox"/>







**B. Write in the columns and subtract.**

1.  $86 - 35$

	T	O
-		

2.  $94 - 68$

	T	O
-		

3.  $99 - 66$

	T	O
-		

**C. Fill in the boxes.**

1. 5 tens + 13 ones =  tens +  ones

2. 7 tens + 18 ones =  tens +  ones

3. 6 tens + 25 ones =  tens +  ones

4. 6 tens + 38 ones =  tens +  ones

**D. Subtract the following.**

1.

	T	O
	6	4
-	2	6

2.

	T	O
	5	9
-	3	6

3.

	T	O
	7	2
-	2	6

4.

	T	O
	4	5
-	2	5

**E. Subtract and check the answer.**

1.  $43 - 27$

	T	O		T	O
			+		
-					

2.  $83 - 56$

	T	O		T	O
			+		
-					

3.  $93 - 66$

	T	O		T	O
			+		
-					

**F.** 62 students are in the classroom. 36 are girls. How many are boys?

**G.** There are 58 rose plants in the park. 39 plants have red roses. How many plants do not have red roses?



Rama bought 1 dozen bananas. 7 bananas of them she ate on the way.  
How many bananas are left with Rama now ?

## Lab Activity

**Objective :** To understand 2-digit subtraction with regrouping.

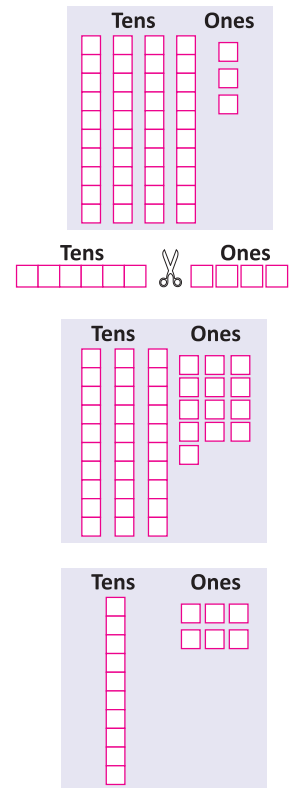
**Materials Required :** Square lined paper cut into strips of  $10 \times 1$  to show tens, pieces of  $1 \times 1$  to show ones and children's scissors

### Activities :

❖ Students work in pairs and draw with chalk a tens and ones grid.

#### To solve $43 - 27$ :

- ❖ One student places 4 tens and 3 ones on the correct place in the grid.
  - ❖ The students observe that there are not enough ones, so the other student picks one strip of ten and cuts it into 10 ones.
  - ❖ The first student then keeps all the ones in the ones place. There are now 3 tens and 13 ones.
  - ❖ The second student now takes away 7 ones from 13 ones and 2 tens from the 3 tens.
- The number that is left is the answer.



### Record the Activity :

$$\begin{array}{r}
 43 - 27 = ? \\
 4 \text{ tens } 3 \text{ ones} = 3 \text{ tens } 13 \text{ ones} \\
 3 \text{ tens } 13 \text{ ones} \\
 - 2 \text{ tens } 7 \text{ ones} \\
 \hline
 1 \text{ ten } 6 \text{ ones}
 \end{array}$$

### Try this out :

$56 - 38 = ?$        $24 - 18 = ?$        $82 - 45 = ?$