



Addition and Subtraction up to 99

Learning Outcomes

After completing this chapter, the students will be able to :

- ☐ add numbers without regrouping, sum not exceeding 99.
- ☐ subtract numbers without regrouping.
- ☐ solve real life problems involving addition and subtraction.

Warm Up

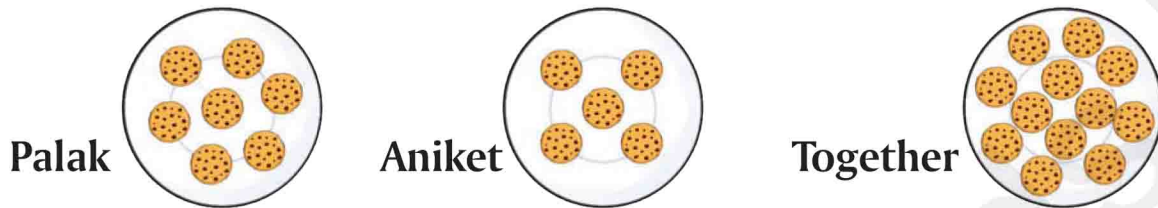


Identify the numbers shown on the hands and write the answer in the box.

1		+		=	
2		-		=	
3		+		=	
4		-		=	
5		+		=	

ADDITION UP TO 20

Palak has 7 cookies. Her brother Aniket has 5 cookies.
How many cookies do they have altogether?



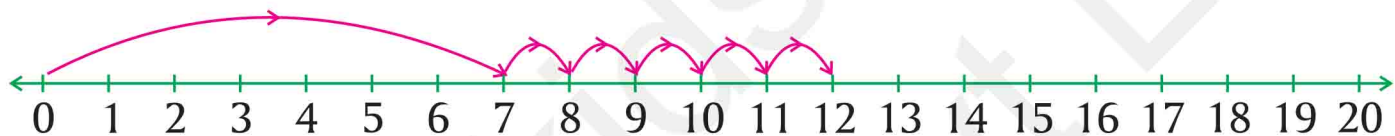
7 cookies and 5 cookies altogether make 12 cookies.

So, $7 + 5 = 12$

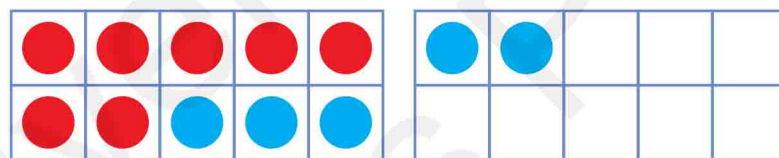
Let us add 7 and 5 on the number line.

Start from 0, move to 7. Then, take 5 forward jumps to reach 12.

So, $7 + 5 = 12$

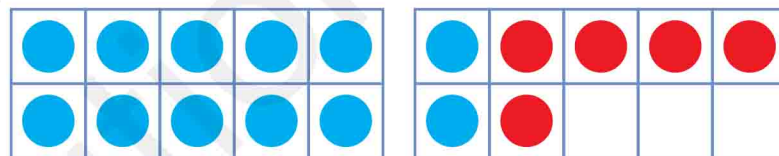


We can add numbers using tens frames.



So, $7 + 5 = 10 + 2 = 12$

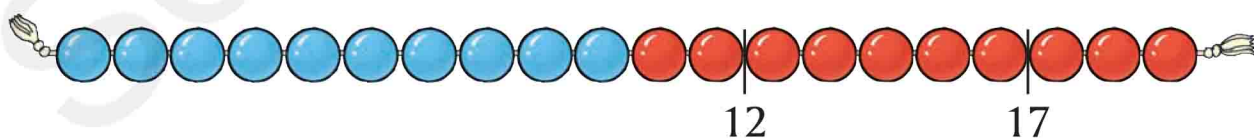
Similarly, we can add 12 and 5.



So, $12 + 5 = 10 + 7 = 17$

Let us add 12 and 5 on *ginladi*.

We count 12 beads first and then count 5 more.



So, $12 + 5 = 17$

7
+ 5
12

12
+ 5
17



EXERCISE-1

(According to NEP Guidelines)
(Understanding, Applying)

1. Add on the number line :

(a) $9 + 7 = \square$

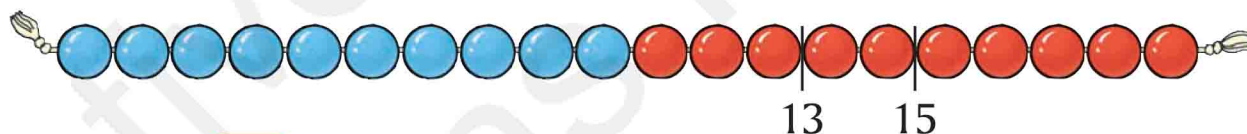


(b) $8 + 6 = \square$

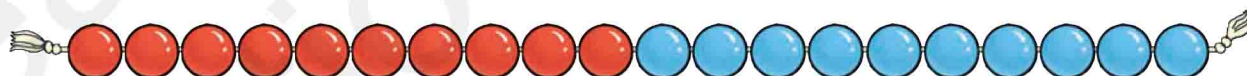


2. Add the numbers on *gintladi*. One is done for you.

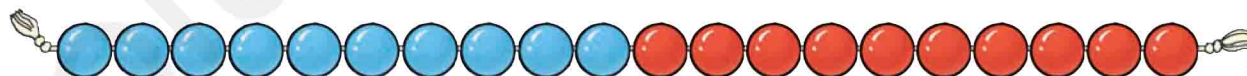
(a) $13 + 2 = \boxed{15}$



(b) $14 + 5 = \square$



(c) $5 + 9 = \square$



3. Add using tens frames.

$11 + 6 = \square$



ADDING THREE NUMBERS

Let us add 8, 4 and 3.

To add three numbers, we begin by adding two numbers.

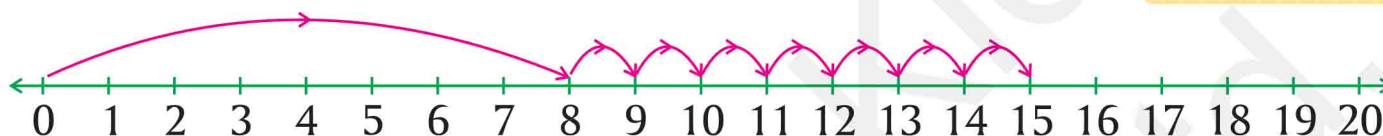
$$8 + 4 = 12$$

Now, we add 3 to 12.

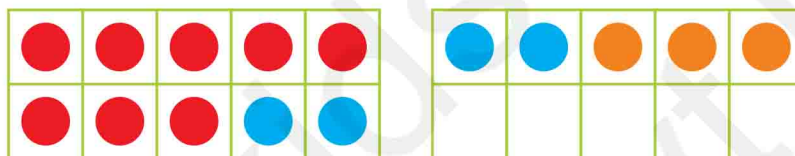
$$12 + 3 = 15$$

$$\text{So, } 8 + 4 + 3 = 15$$

On the number line, it can be shown as follows :



We can add three numbers using tens frames.



$$\text{So, } 8 + 4 + 3 = 10 + 5 = 15$$



EXERCISE-2

(According to NEP Guidelines)
(Understanding)

Add :

1	$\begin{array}{r} 5 \\ 7 \\ + 2 \\ \hline \end{array}$	2	$\begin{array}{r} 6 \\ 8 \\ + 1 \\ \hline \end{array}$	3	$\begin{array}{r} 9 \\ 5 \\ + 3 \\ \hline \end{array}$	4	$\begin{array}{r} 8 \\ 6 \\ + 3 \\ \hline \end{array}$
5	$\begin{array}{r} 7 \\ 7 \\ + 5 \\ \hline \end{array}$	6	$\begin{array}{r} 5 \\ 6 \\ + 7 \\ \hline \end{array}$	7	$\begin{array}{r} 4 \\ 6 \\ + 2 \\ \hline \end{array}$	8	$\begin{array}{r} 3 \\ 5 \\ + 7 \\ \hline \end{array}$

ADDITION OF 2-DIGIT NUMBERS WITHOUT REGROUPING

Example 1 : Add 27 and 32.

Solution : 27 = 2 tens and 7 ones

32 = 3 tens and 2 ones

Step-1: Add the ones.

7 ones + 2 ones = 9 ones

Write 9 in the ones place.

Step-2: Add the tens.

2 tens + 3 tens = 5 tens

Write 5 in the tens place.

So, $27 + 32 = 59$

T	O
2	7
+	3
2	
9	

T	O
2	7
+	3
2	
5	
9	

Example 2 : Add 23, 35 and 41.

Solution : 23 = 2 tens and 3 ones

35 = 3 tens and 5 ones

41 = 4 tens and 1 one

Step 1: Add the ones.

3 ones + 5 ones + 1 one = 9 ones

Write 9 in the ones place.

Step 2: Add the tens.

2 tens + 3 tens + 4 tens = 9 tens

Write 9 in the tens place.

So, $23 + 35 + 41 = 99$

T	O
2	3
3	5
+	4
1	
9	
9	

Think And Write

Write the given numbers as a sum of two 2-digit numbers.

1. $32 = \boxed{20} + \boxed{}$

2. $25 = \boxed{} + \boxed{10}$

3. $99 = \boxed{30} + \boxed{}$

4. $62 = \boxed{40} + \boxed{}$

 EXERCISE-3

(According to NEP Guidelines)
(Understanding)

1. Add:

a

T	O
1	3
+ 1	1

b

T	O
2	4
+ 1	3

c

T	O
5	0
+ 2	7

d

T	O
4	1
+ 4	5

e

T	O
3	4
+ 4	3

f

T	O
2	1
+ 3	2

g

T	O
4	7
+ 1	2

h

T	O
8	2
+ 1	5

2. Add:

a

T	O
1	6
1	2
+ 6	0

b

T	O
2	5
2	3
+ 4	1

c

T	O
4	7
1	2
+ 2	0

d

T	O
4	2
1	5
+ 4	2

e

T	O
1	1
1	2
+ 1	3

f

T	O
2	2
1	4
+ 3	3

g

T	O
4	5
1	2
+ 3	2

h

T	O
5	3
1	4
+ 2	1

EXERCISE-4

(According to NEP Guidelines)
(Applying)

1.

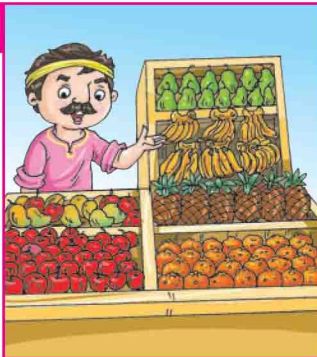


There are 12 books and 10 notebooks in a cupboard. How many books and notebooks are there in the cupboard altogether?

Ans. There are books and notebooks in the cupboard.

T	O
1	2
+	1 0

2.



A fruitseller sells 45 apples and 33 oranges in a day. Find the total number of apples and oranges sold.

Ans. Total number of apples and oranges sold is

3.



In a class, there are 34 boys and 24 girls. How many students are there in the class in all?

Ans. There are students in the class in all.

4.



Rahul has 43 red balls and 15 green balls. How many balls does he have in total?

Ans. Rahul has balls in total.

Key words: altogether in total in all

SUBTRACTION UP TO 20

Twinkle has 16 balls.

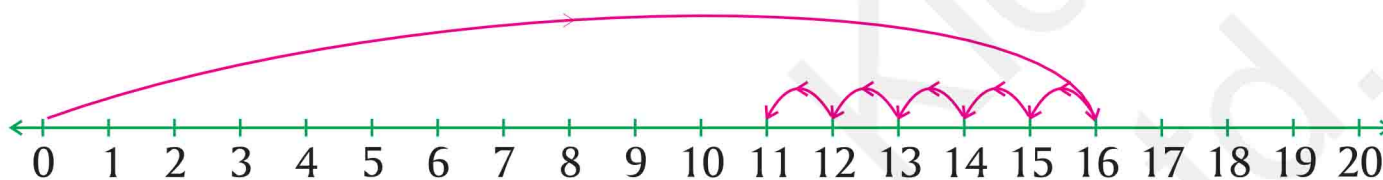
She gives 5 balls to Stuti.

How many balls are left with Twinkle?

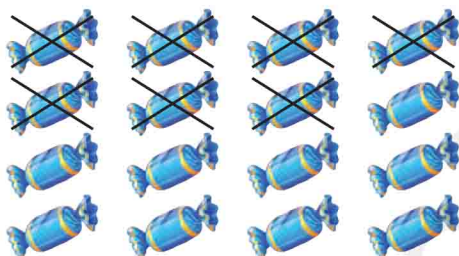
So, $16 - 5 = 11$

Let us subtract 5 from 16 on the number line.

Start from 0 and move to 16. Then, take 5 jumps backwards to reach 11.



So, $16 - 5 = 11$



Rohan has 16 toffees.

He gives 7 toffees to Sumit.

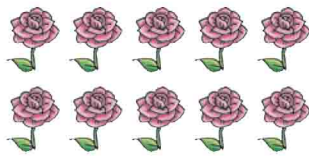
How many toffees are left with Rohan?

So, $16 - 7 = 9$

EXERCISE-5

(According to NEP Guidelines)
(Understanding)

1. Subtract by crossing out.

(a)  $12 - 7 = \square$	(b)  $10 - 4 = \square$
(c)  $19 - 10 = \square$	(d)  $18 - 12 = \square$

2. Subtract by making dots and crossing out. One is done for you.

(a)	$16 - 7 = $ 9	
(b)	$11 - 6 = $	
(c)	$15 - 9 = $	

3. Subtract on the number line :

(a) $18 - 4 =$



(b) $13 - 8 =$



Think And Answer

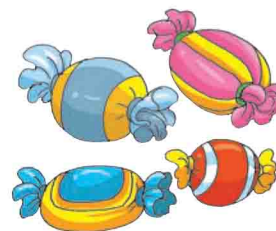


Parul has 5 toffees.

Ruchi has 5 toffees more than Parul.

Shweta has 6 toffees less than Ruchi.

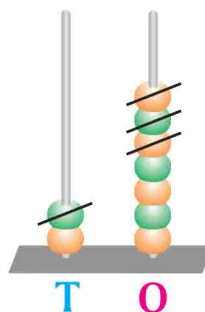
How many toffees are in total with the three girls?



SUBTRACTION OF 2-DIGIT NUMBERS WITHOUT REGROUPING

Let us subtract 13 from 27.

We represent 27 on the abacus.



We remove 3 beads from the ones rod and 1 bead from the tens rod.

The number obtained is 14.

So, $27 - 13 = 14$

We first subtract ones and then tens.

Example : Subtract 21 from 29.

Solution :

$$29 = 2 \text{ tens and } 9 \text{ ones}$$

$$21 = 2 \text{ tens and } 1 \text{ one}$$


Step-1 : Subtract the ones.

$9 \text{ ones} - 1 \text{ one} = 8 \text{ ones}$

Write 8 in the ones place.

T	O
2	9
- 2	1
	8

Step-2 : Subtract the tens.

$2 \text{ tens} - 2 \text{ tens} = 0 \text{ tens}$

Write 0 in the tens place.

So, $29 - 21 = 8$

T	O
2	9
- 2	1
0	8

Laughter Time



Teacher : If you have 4 oranges in one hand and 5 oranges in the other hand, what do you have?

Student : Very large hands.

 EXERCISE-6

(According to NEP Guidelines)
(Understanding)

Subtract :

1. T O
 2 4
- 1 3

2. T O
 3 6
- 1 4

3. T O
 4 8
- 2 4

4. T O
 5 9
- 4 5

5. T O
 5 5
- 3 3

6. T O
 6 7
- 4 4

7. T O
 7 5
- 5 5

8. T O
 8 7
- 1 1

9. T O
 9 9
- 8 8

10. T O
 8 4
- 2 3

11. T O
 3 3
- 1 2

12. T O
 8 7
- 3 3

13. T O
 2 7
- 1 4

14. T O
 9 2
- 7 1

15. T O
 8 3
- 4 2

16. T O
 4 6
- 2 3

EXERCISE-7

(According to NEP Guidelines)
(Applying)



Karan invites 42 friends for a party. Only 20 friends agree to come. How many friends are not able to come for the party?

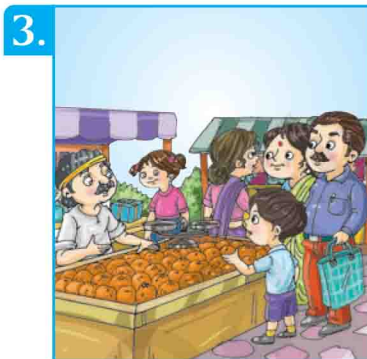
Ans. friends are not able to come.

T	O
4	2
– 2	0



There are 55 seats in a bus. If 45 children are already sitting in it, how many more children can sit inside the bus?

Ans. more children can sit inside the bus.



Raju goes to the market with 54 oranges. He sells 42 of them. How many oranges are left with him?

Ans. oranges are left with Raju.



Govinda has 58 marbles. He gives 27 to his friend. How many marbles are left with him?

Ans. marbles are left with Govinda.

Key words: left remain

Oral**(Logical Reasoning)**

1. What is 20 more than 42?
2. What is 30 less than 77?
3. What is the difference between 90 and 40?

**REVIEW EXERCISE****(According to NEP Guidelines)***(Understanding, Applying)***1. Choose the correct options.**

(a) Which of the following is NOT equal to 24?

(i) $14 + 10$

☐

(ii) $11 + 13$

☐

(iii) $12 + 10$

☐

(b) Which subtraction statement gives the same value as $18 - 7$?

(i) $29 - 16$

☐

(ii) $35 - 24$

☐

(iii) $59 - 47$

☐**2. Add or subtract as instructed.**

a	T	O
	5	4
	+	3
		5

b	T	O
	4	6
	-	3
		2

c	T	O
	7	7
	-	2
		4

d	T	O
	7	3
	+	1
		5

3. There are 23 cheese cakes and 25 pineapple cakes in a shop. How many cakes are there in the shop in total?
4. Anju has 54 stickers. She gives 24 to Manju. How many stickers are left with Anju?

Value Corner**(Environmental Literacy)**

On the occasion of 'The Earth Day', the girls of class 1 planted 38 saplings and the boys of class 1 planted 51 saplings. How many saplings were planted in all?

Real Life Connect

26 boys and 22 girls are playing in a picnic park. How many children are playing in the park? Who are more in number: boys or girls? By how many?

Art Integrated Learning



Add and subtract. Colour the car with answer less than 50 **red**, and more than 50 **blue**.

$$\begin{array}{r} 42 \\ + 30 \\ \hline \end{array}$$

$$\begin{array}{r} 55 \\ - 40 \\ \hline \end{array}$$

$$\begin{array}{r} 65 \\ - 31 \\ \hline \end{array}$$

$$\begin{array}{r} 82 \\ - 31 \\ \hline \end{array}$$

$$\begin{array}{r} 42 \\ + 25 \\ \hline \end{array}$$

$$\begin{array}{r} 55 \\ - 43 \\ \hline \end{array}$$

Maths Lab Activity



(Experiential Learning)

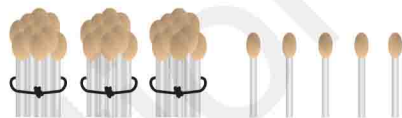
To understand the addition of 2-digit numbers.

Material required : Matchsticks and rubber bands.

Procedure : Students work in pairs. The teacher distributes matchsticks and rubber bands to each student. Then, the teacher asks each pair to represent two 2-digit numbers using matchsticks say, 12 and 35.



$$= 1 \text{ ten } 2 \text{ ones} = 12$$



$$= 3 \text{ tens } 5 \text{ ones} = 35$$

Now, the students add the two numbers.

$$\begin{array}{c} \text{1 ten 2 ones} \\ + \\ \text{3 tens 5 ones} \\ \hline \end{array} = \begin{array}{c} \text{4 tens} \\ \text{7 ones} \end{array} = 47$$

Critical Thinking



Sheena has 25 toffees and Mohan has 19 toffees. How many toffees should Sheena give to Mohan so that they both have same number of toffees?