

UNIT
1

Shall we count



Learners will be able to :

- Identify the numbers below 100.(CG-8)
- Understand the Place value and Face value of 2-digit numbers.(CG-8)
- Arrange the 2-digit number in ascending and descending order.(CG-8)
- Read and write the 2-digit numbers in words and vice versa.(CG-8)
- Compare the 2-digit numbers using with appropriate symbols. ($<$, $=$, $>$)(CG-8)

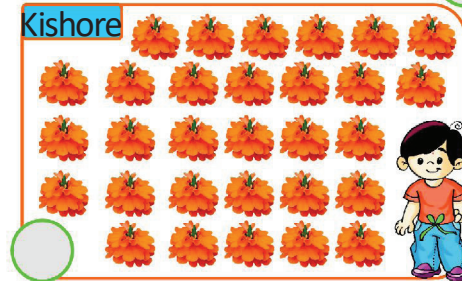
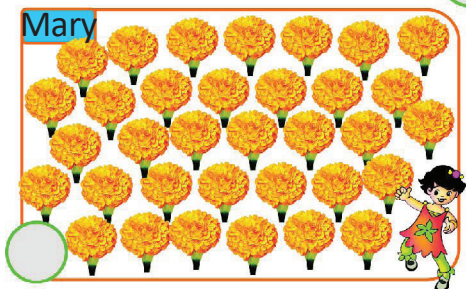
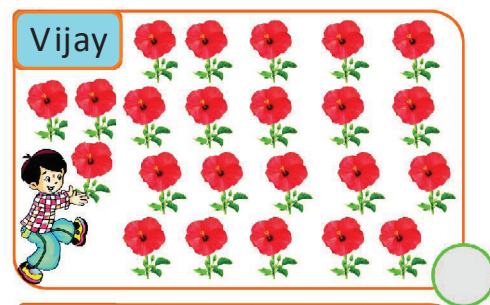
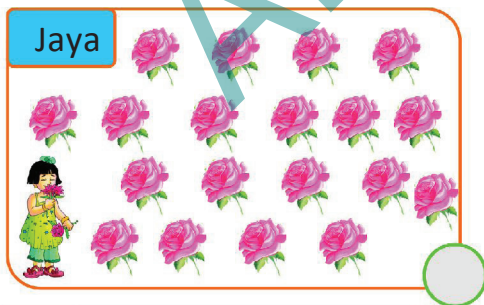
Observe the beside picture.

Children collected flowers on the occasion of Independence day to decorate the school. There are making garlands with the flowers. Now, count and write the number of flowers collected by them.



Let the students talk about the picture.

Observe the following pictures given below, count and write who collected how many flowers.



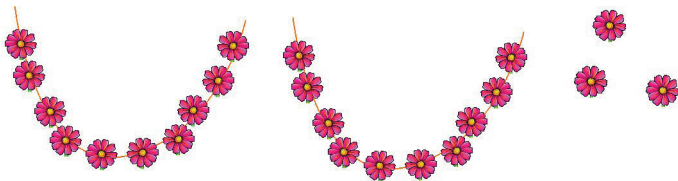
Making the flower garlands (Expanded Form).



Vijay gave 23 flowers to Devi and asked her to make garlands of 10 flowers in each.



Observe the garlands made by Devi.

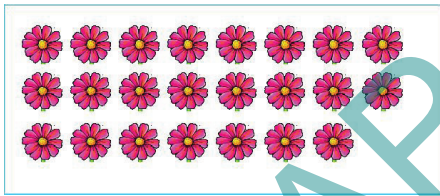


23 flowers = 2 garlands + 3 flowers

1. How many flowers are there in total?
2. How many garlands made by Devi?
3. How many flowers are left with Devi?



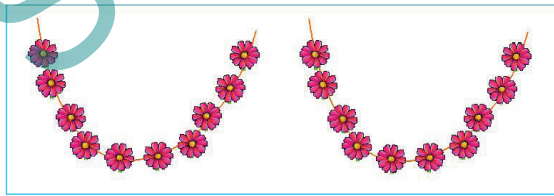
Flowers given by Vijay



23

=

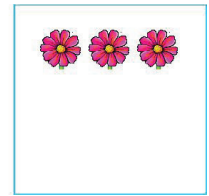
Flowers in garlands made by Devi



20

+

Flowers left

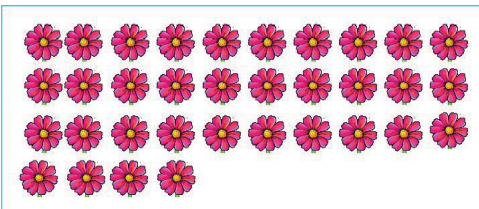


3

Do these

- 1) Help them to make garlands with flowers brought by the children.

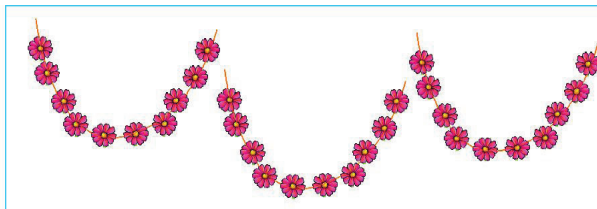
a) Flowers brought by Mary



34

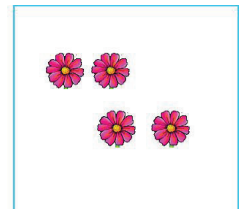
=

Flowers in garlands made by Mary

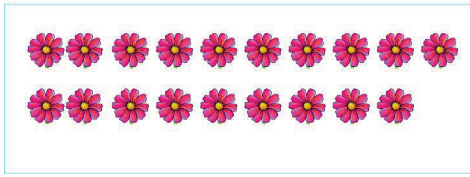


+

Flowers left



b) Flowers brought by Jaya



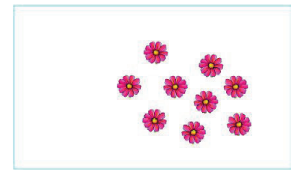
19

Flowers in garlands made by Jaya

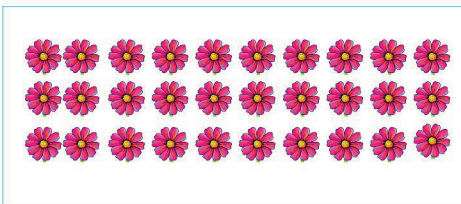


+

Flowers left



c) Flowers brought by Kishore



30

Flowers in garlands made by Kishore



+



Expanded Form

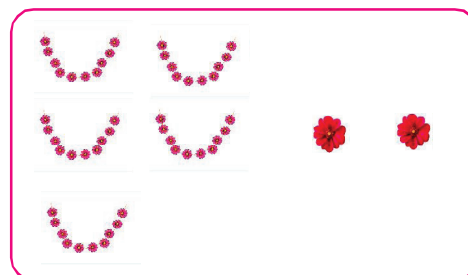
Collected flowers	Garlands(Tens)	Spare flowers(ones)	Total
<p>23</p>			$20 + 3 = 23$
<p>47</p>			$\dots + \dots =$

How many flowers are there in the picture? ()

a) 60

b) 47

c) 52



Match the following.

A. 80 Chikoos



B. 72 Chikoos



C. 56 Chikoos

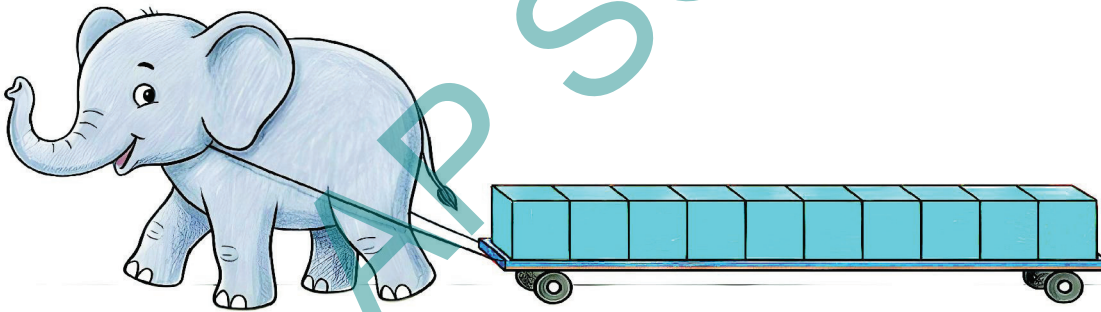


D. 28 Chikoos



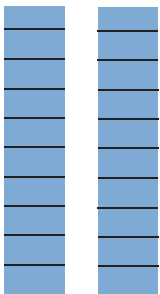
Short form

Look at my ten strips

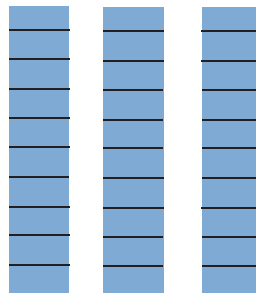


Can you tell how many units are there in this ten strip?

1 ten strip = _____ units



2 Ten Strips = 20 Units





3 Ten Strips = 30 Units

Do these

_____ ten strips and
 _____ units
 _____ total units

_____ ten strips and
 _____ units
 _____ total units

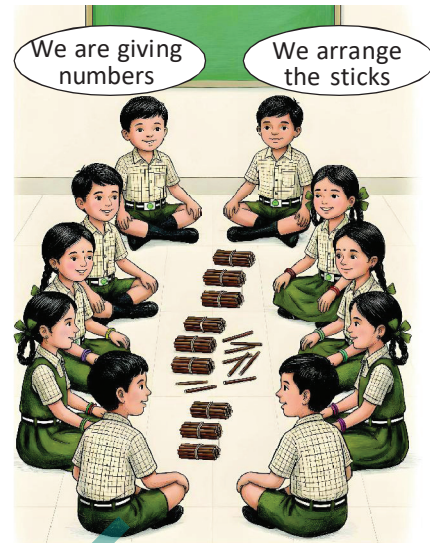
_____ ten strips and
 _____ units
 _____ total units

No. of ten strips 	Ones 	Expanded form	Total(Short form)
2	5	$20 + 5$	25
6	8	<input type="text"/> + <input type="text"/>	<input type="text"/>
1	9	<input type="text"/> + <input type="text"/>	<input type="text"/>

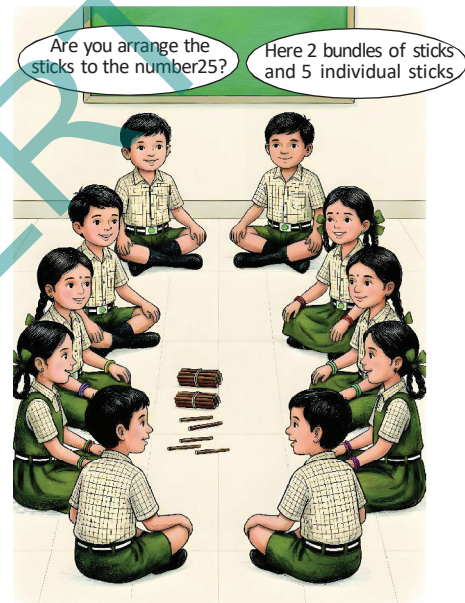
- Find the expanded form for 73? ()
 a) $30 + 7$ b) $70 + 3$ c) $7 + 20$
- Find the short form for $50+8$? ()
 a) 58 b) 85 c) 508

Number Making Activity with sticks

- ◆ Make the class into two groups A and B.
- ◆ Provide Nine bundles of sticks each bundle has ten sticks. Nine individual sticks and rubber bands.
- ◆ Group A says aloud a two digit number for example: "25"



- ◆ Group B uses the sticks to represent the number 25 with bundle and individual sticks.
- ◆ They can place 2 bundle of 10 sticks and then place 5 individual sticks
- ◆ Write the number name in black board.
- ◆ Now its turn to B group
- ◆ Vice versa.



Match the following.

Seventy One

53

Fifty three

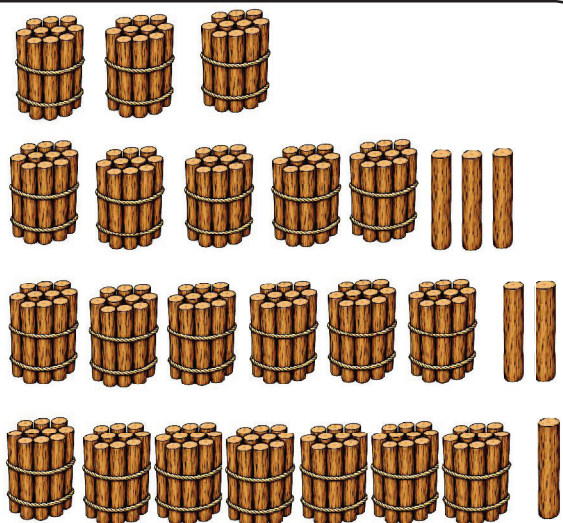
30

Sixty two

71

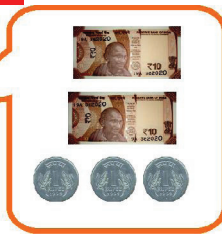
Thirty

62

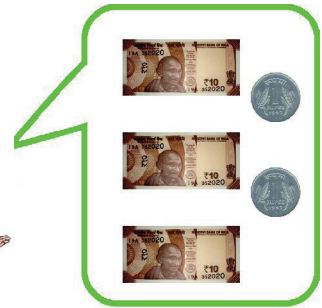


Place value and Face value

The money I have



The money I have



	Tens		Ones	
₹ 23	=	2	+	3
The number in ones place				= 3
Place value of 3 is '3 ones'				= 3
The number in tens place				= 2
Place value of 2 is '2 tens'				= 20



	Tens		Ones	
₹ 32	=	3	+	2
The number in ones place				= 2
Place value of 2 is '2 ones'				= 2
The number in tens place				= 3
Place value of 3 is '3 tens'				= 30

Why is the place value of 2 different in the above two numbers 23 and 32?

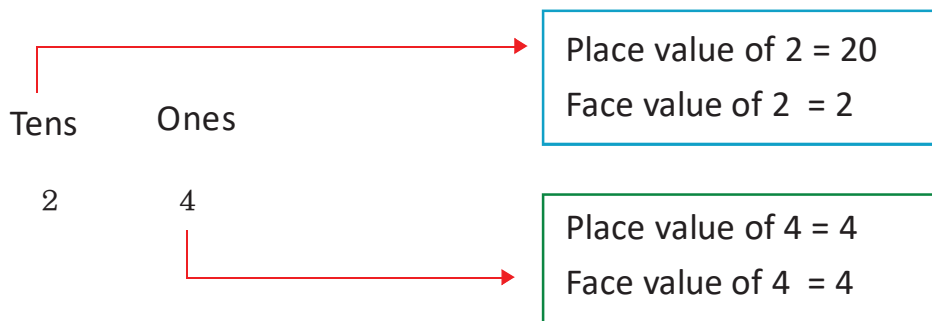
Wherever 2 is placed, the actual value remains the same. This value is called Face value.



The place value changes according to the place of the digit in the number.



Note : Place value depends on the place at where the digit is. But the Face value is same wherever it is.



Do these

1. Write the Place value and Face value of 3 and 8 in 38.

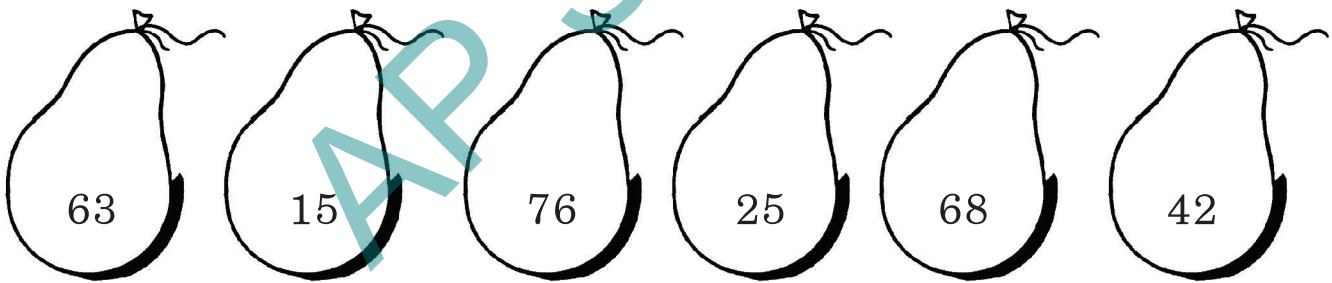
Sol:

		Place value of 30 =
Tens	Ones	
3	8	

		Place value of 8 =

2. Use the colour code to colour the balloons.

Orange : 5 in the ones place	Green : 2 in the ones place
Blue : 7 in the tens place	Brown : 6 in the tens place.



3. Match the following.

3 Tens 2 Ones	46
Forty six Ones	1 Ten 9 Ones
19 Ones	32 Ones

Comparison of numbers

Hi Aadhya and Sagar today we will go to your uncle's house so, go and collect some guavas from our garden.



Yah! I collected a basket full of guavas. I collected more guavas.

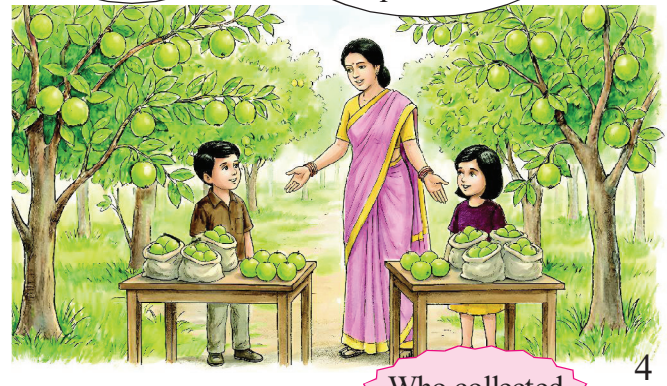
Yey, I also collected a big bag full of guavas. So, I collected more



Let us see who collected more guavas take these bags and pack ten guavas in each bag.

Sagar collected 3 bags of guavas and 6 spare one's

Aadhaya collected 4 bags of guavas and 3 spare one's



Who collected more!

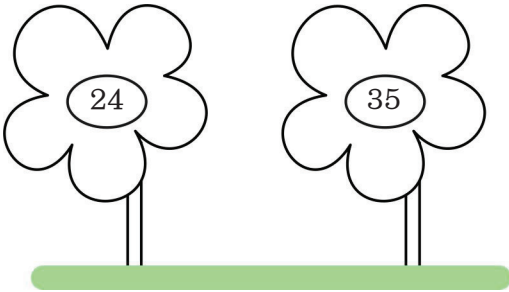
To compare 2 numbers, we have to compare highest placed digit first.



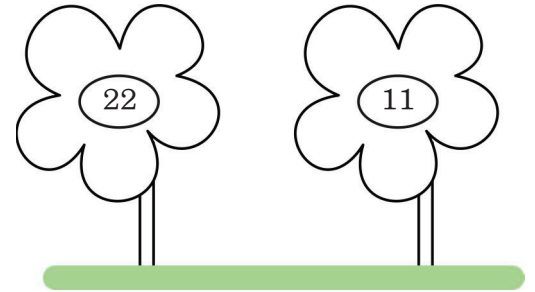
Do these

1. Colour the flower having the bigger number.

a)

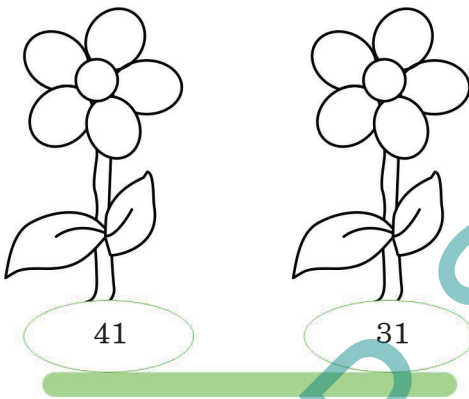


b)

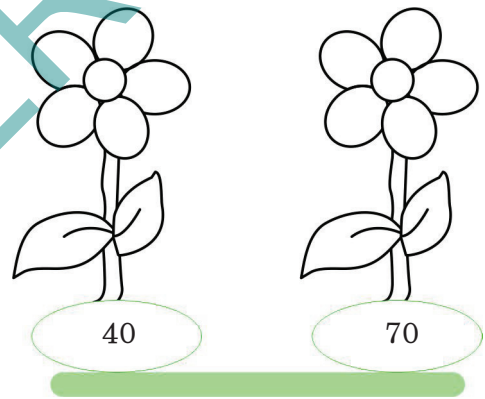


2. Colour the flower having the smaller number.

a)

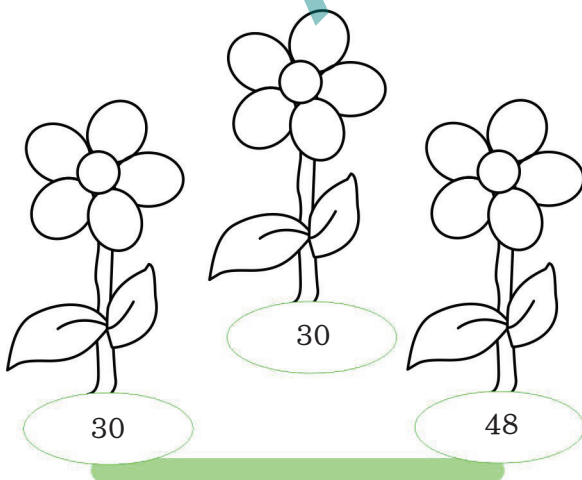


b)

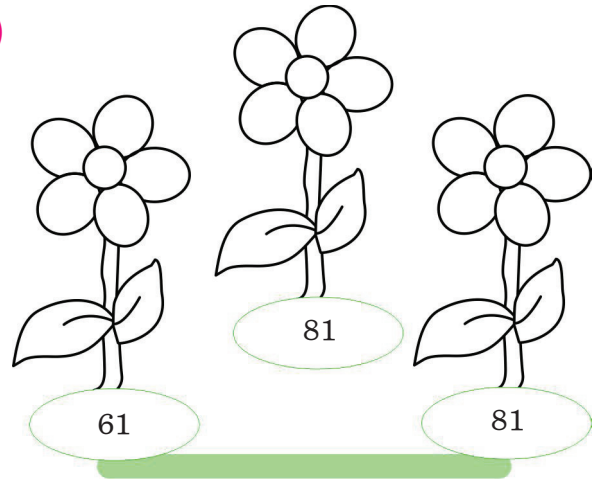


3. Colour the flowers having the equal numbers.

a)

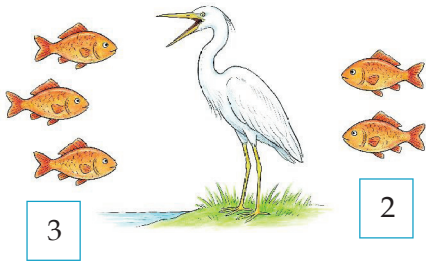


b)

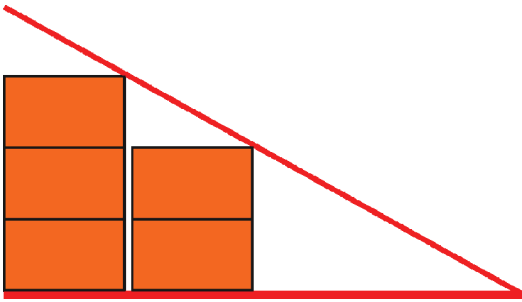


Introduction of <, > and =

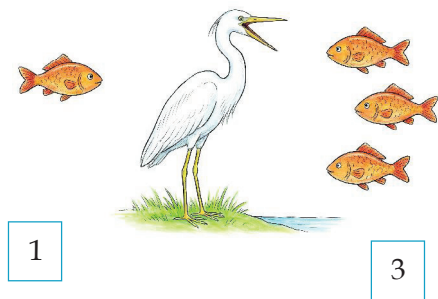
I eat more fish.



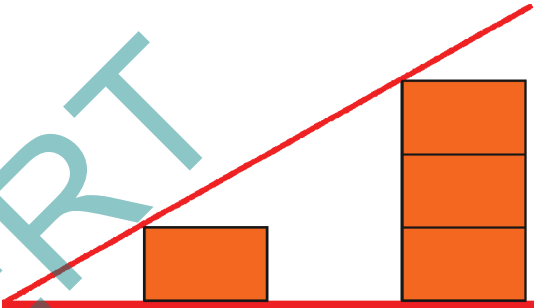
3 is greater than 2
 $3 > 2$
 '>' is greater than.



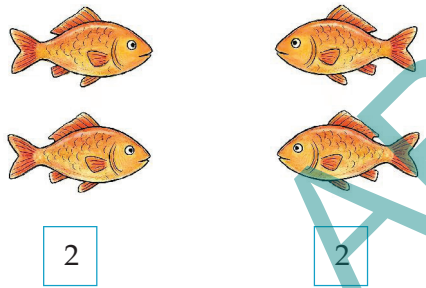
I don't eat less fish.



1 is less than 3
 $1 < 3$
 '<' is less than.



Both are equal.



2 is equal to 2
 $2 = 2$
 '=' is equal to



● Choose the correct symbols (<, >, =) in the boxes given below.

Example : 1) $14 > 8$ 2) $9 < 12$ 3) $16 = 16$

- 1) $14 \square 7$ 2) $41 \square 31$ 3) $18 \square 23$
 4) $21 \square 21$ 5) $57 \square 47$

● Choose the correct mathematical symbol. $53 \square 63$ ()
 a) < b) > c) =



Activity: Making 2 - digit numbers with number cards.

Number cards

0

1

2

3

4

5

6

7

8

9

Step : 1 To make a 2 - digit number take one set of number cards from 0 to 9.

Step 2 : Ask a child to pick up any card from 0 to 9. Example: **2**

Step 3 : Ask another child to pick up a card from 0 to 9 and put it beside the first number card. Example : **5**

Step 4 : Two numbers can be made using the two digits.

Those are **2 5** = 25 and **5 2** = 52

In the above two numbers, The bigger number is 52 and smaller number is 25.

Comparison: $25 < 52$ and $52 > 25$.

Example : 1. Write down the 2 - digit numbers with the given digits and compare them.

The numbers that can be written using the digits **4** and **5** are

a) 45

b) 54

Comparison of 45 and 54:

45 54

54 45

Do these

1. Write and compare the 2-digit numbers with 3 and 7.

Numbers that can be written using the digits 3 and 7 are

a) _____

b) _____

Comparison

a) b)

2. How many 2-digit numbers can you prepare by using 5, 8? ()

a) 3

b) 2

c) 4

3. The numbers you can prepare by using 6, 3 are? ()

a) 63,36

b) 63,63

c) 36,36

Ascending Order and Descending Order:

Teacher : Children, Look at the picture. How the children are standing?

Children: Children are standing in a row as per their heights.

Teacher :Yes, children are standing in the shortest height to tallest height. Same way numbers are arranged from the smallest to largest number is called Ascending order.

Ascending order

Example : 12,23,38,57

Observe, the backside trees they are in tallest tree to smallest tree. This arrangement is called Descending order.

Descending Order

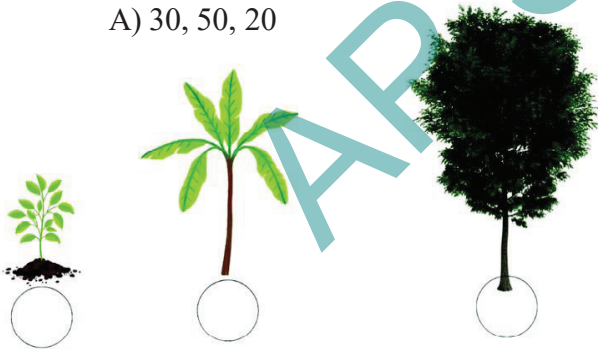
Ex : 57, 38, 23, 12



Do these

1. Arrange the given numbers in the ascending order in the space provided.

A) 30, 50, 20

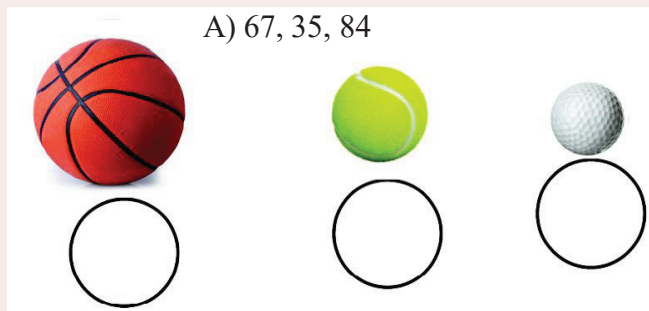


B) 61, 48, 92



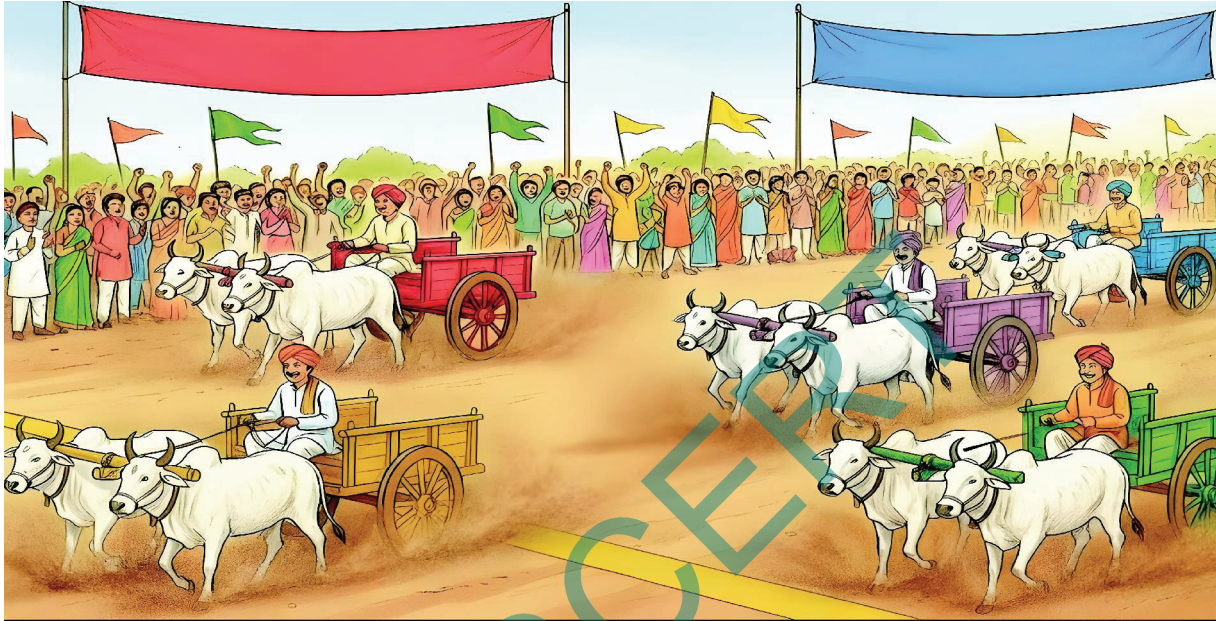
2. Arrange the given numbers in the descending order in the space provided.

A) 67, 35, 84



Introduction of Ordinal Numbers

In Andhra Pradesh, Sankranti festival is celebrated through famous bullock cart race called Edlabandi poteelu. The race has nearly come to an end. Look at the picture and observe the position of each bullock cart.



1. Which colour bullock cart came first in the races ? _____
2. Which colour bullock cart is likely to come third ? _____
3. At which position green bullock cart is _____

Index number :

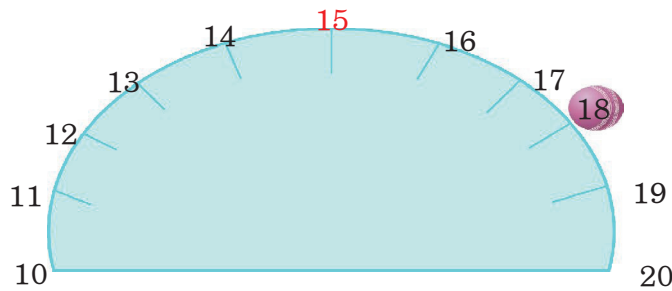
Discuss with students about various places where they can see numbers as labels or names around them.

Example :

Train Number, Bus Number, House Number, etc.,



Rounding off Numbers



Which side does the ball roll?



Example : Round off 18 to the nearest tens

10 11 12 13 14 15 16 17 18 19 20

Round off 18 to the nearest 10s

Step - 1 : We see 18 is in between 10 and 20.

Step - 2 : Identify the mid number between 10 and 20. It is 15.

Step - 3 : The number 18 comes after 15 and is nearer to 20.

Step - 4 : Round off 18 to the nearest tens is 20.

So, 18 is nearest to 20.

Round off 43 to the nearest tens:

The mid number between 40 and 50 is 45. Round off 43 is to the nearest ten.

Step-1: Note that 43 is in between 40 and 50.

Step-2: Identify the mid number between 40 and 50. It is 45.

Step-3: the number 43 comes before 45 and is nearer to 40.

So, 43 is nearest to 40.



Do these

Colour the box to the nearest tens.

Number	10	20	30	40	50
12					
27					
48					
34					





EXERCISE



1. Write the expanded form to the following.

a) $72 = \square + \square$ b) $56 = \square + \square$

2. Write the short form to the following.

a) $30 + 6 = \square$ b) $90 + 9 = \square$

3. Use the suitable symbols ($>$, $<$, $=$) to compare the numbers.

a) $40 \square 20$ b) $70 \square 50$

c) $17 \square 71$ d) $45 \square 45$

4. Write the given numbers in ascending and descending order.

a) 30, 80, 60

Ascending order : $\square \square \square$; Descending order: $\square \square \square$

5. Round the numbers to the nearest 10s and tick (\checkmark) in the right box.

a) 63 :

50	60	70
----	----	----

 b) 72 :

50	60	70
----	----	----

6. Match the following.

- | | |
|----------------------|----------|
| a) $60 + 5$ | 40 |
| b) Nearest ten of 39 | $40 + 6$ |
| c) 46 | 56 |
| d) Fifty Six | 65 |

7. Identify the number "NINETY FOUR" ()

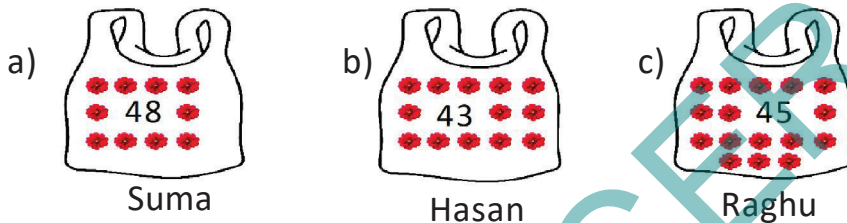
- a) 90 b) 94 c) 93

8. Find the biggest number? ()

- a) 99 b) 89 c) 98

Improve your learning

1. $54 \square 45$ with size from the following should be written in the box ()
 a) $>$ b) $<$ c) $=$
2. Identify the number which has '6' in tens place. ()
 a) 72 b) 62 c) 82
3. Answer the following.
 - i) What are the nearest before and after tens to the number '36'.
 a) 20-30 b) 30-40 c) 40-50
 - ii) Write the possible 2-digit numbers using 8, 3 and 7.
4. Suma, Hasan and Raghu bought some flowers are shown below.



Who bought more flowers ? _____

5. If the boy moves 5 steps west from 74, what will be the nearest TEN to him? ()



- a) 60 b) 70 c) 80

6. The number bigger than 25, smaller than 27 is _____

Mapping of Domains with Concepts - Examples

S.No	Domain	Concepts
1.	Physical development	Number making activity, Colouring activity (bigger & smaller no's)
2.	Cognitive development	Counting objects, comparison of numbers using symbols $>$, $<$, $=$
3.	Socio - Emotional and Ethical development	Practicing activities in groups
4.	Language and literacy development	Giving answers to questions
5.	Aesthetic and cultural development	Colouring smaller & bigger number

Latha counted numbers correctly. This activity related to _____ domain.

**Learners will be able to :**

- Solve addition problems of 2-digit numbers (sum not exceeding 99).(CG-8)
- Identify errors and correcting mistakes in addition problem.(CG-8)
- Solves addition problems in different situations presented through pictures and stories.(CG-8)
- Tender amount up to 100 using notes and coins.(CG-8)
- Solve grouping and regrouping additions.(CG-8)



1. What do you observe in the picture?
2. How many tortoises are there?
3. How many parrots are there ?



I am Sunny



Observe the pictures and do the following additions.

1) How many squirrels are there in total ?

Number of squirrels under the tree = 2

Number of squirrels on the tree = + 1

Total = 3

2) How many parrots are there in total ?

Number of parrots sitting on the lower branch = 4

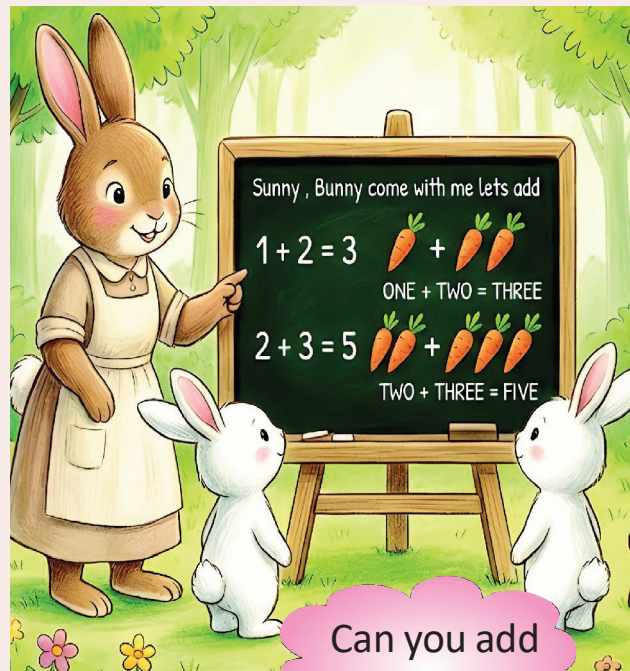
Number of parrots sitting on the upper branch = + 1

Total =

Note : When we add two numbers, the result is called the 'SUM' of the given numbers.

ADDITION RHYME :

Sunny, Bunny come with me,
Let us add the numbers.
Add the numbers don't delay,
Are you ready yes, yes, yes.(2times).
One and two add with me,
One plus two it's three,
Now it's turn to three T H R E E three.
Two and three add with me,
Two plus three its five,
Now its turn to five F I V E five.
Sunny Bunny come with me.
Let us add more and more Laala laala la la la l.....



Can you add further

Activity

Take 9 tamarind seeds and rub them well on one side until they become white.

Now throw the seeds on the floor.

It will be like.

5 black and 4 white as shown in the picture.

Repeat this activity with all children and note on the table.



Black	White	Total
5	4	9

Making Ten (10)

A) Fill in the boxes.

1 + 9 =	□	=	9 + 1 =	□
2 + 8 =	□	=	8 + 2 =	□
3 + 7 =	□	=	7 + 3 =	□
5 + 5 = □				

Note : Changing the order of numbers while adding does not change the result.

Do the following additions.

a)
$$\begin{array}{r} 5 \\ + 2 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 7 \\ + 1 \\ \hline \end{array}$$

c)

Tens	Ones
1	0
+	3

d)

Tens	Ones
	4
+	1
1	

1. Find the sum of $14 + 3 = ?$ ()

- a) 15 b) 17 c) 16

Addition of 2-digit number and 1-digit number by using 10 blocks

Example : $35 + 4 = \dots\dots\dots$

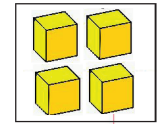
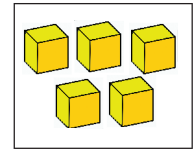
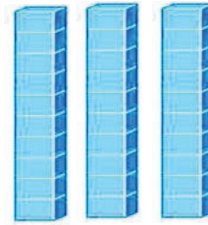
35 means 3 tens and 5 ones.

4 means 4 ones.

Begin adding with ones. So, $5 + 4 = 9$

Write 9 in ones place.

Tens	Ones
3	5
+	4
	9



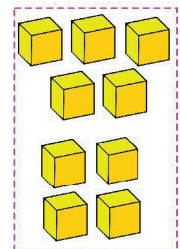
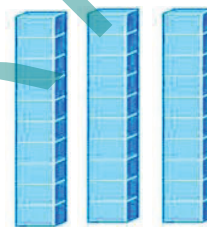
Now, add the numbers in tens place.

Write 3 in tens place.

$35 + 4 = 39$

Convert this addition into word problem (oral)

Tens	Ones
3	5
+	4
3	9



Example : Subbu has 35 bananas and Gupta has 4 bananas. How many bananas do they have in total?

Do these

1)

Tens	Ones
7	5
+	0

2)

Tens	Ones
	4
+	3
8	

3)

Tens	Ones
9	0
+	0

4. The sum of two numbers is equals to 68 is _____ ()
 a) $32+38$ b) $34+36$ c) $34+34$
5. $0 + 99 = \underline{\hspace{2cm}} ?$ ()
 a) 9 b) 99 c) 90

Addition of 2-digit numbers

While Guna and Parthu are playing near the stream, it started raining.

Guna made 13 paper boats and

Parthu made 12 paper boats.

They played with the paper boats happily.

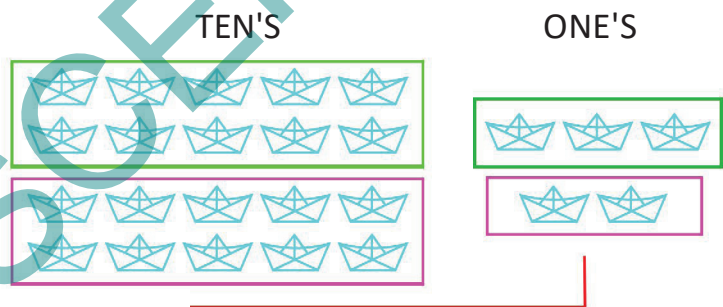
Can you count how many boats were made by them together?

$$13 + 12 = ?$$



We begin with ones place numbers. So, $3 + 2 = 5$. We write '5' in ones place.

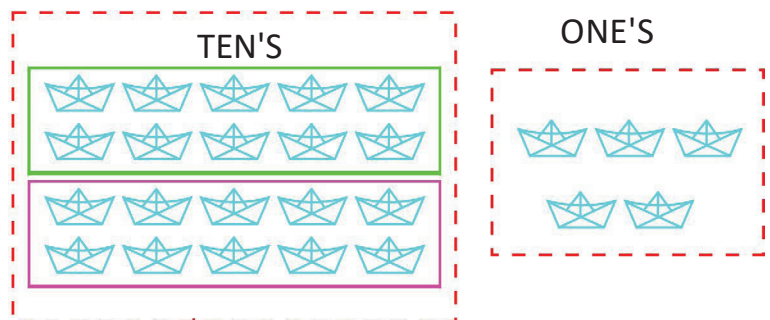
Tens	Ones
1	3
1	2
	5



Now we add the numbers in tens.

$$1 + 1 = 2$$

Tens	Ones
1	3
1	2
2	5



Write '2' in tens place.

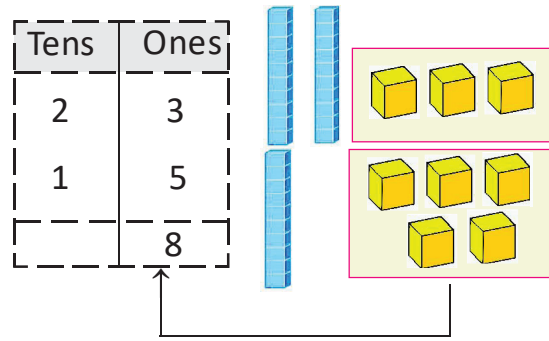
So, $13 + 12 = 25$.

Total number of paper boats = 25.

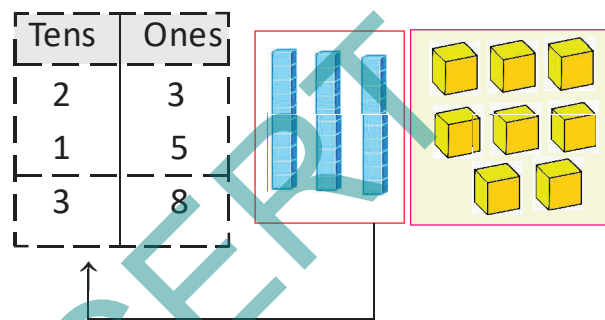


Addition of 2-digit number and 2-digit number by using 10 blocks.

Ex : $23 + 15 = \underline{\hspace{2cm}}$
 23 means 2 tens and 3 ones.
 15 means 1 ten and 5 ones.
 Adding with ones.
 so, $3 + 5 = 8$
 write 8 in ones place.



Now, add the numbers in tens place.
 Write 3 in tens place.
 $23 + 15 = 38.$



Do these

1)

a)

	Tens	Ones
	4	1
+	2	6

b)

	Tens	Ones
	5	0
+	3	0

c)

	Tens	Ones
	6	2
+	4	5

2) Observe and fill in the blanks.

$20 + 10 = 30$

$40 + 10 = \underline{\hspace{1cm}}$

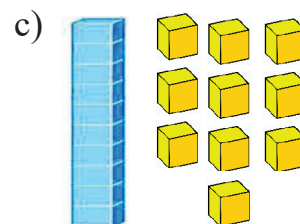
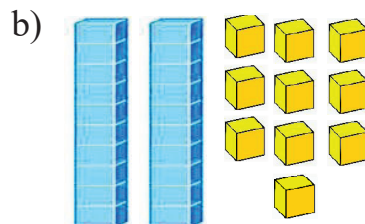
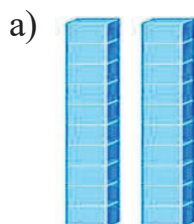
$27 + 10 = \underline{\hspace{1cm}}$

$25 + 10 = \underline{\hspace{1cm}}$

$37 + 10 = \underline{\hspace{1cm}}$

$29 + 10 = \underline{\hspace{1cm}}$

3) Which picture represents $10 + 10 + 10$?



()

Word problems

Some school children went for picnic to the beach.

1) Students at the picnic

18  21 

How many students are there in total? +

Tens	Ones
1	8
2	1



Answer

2) Play material they carried

12  15 

How many play material they carried in total? +

Tens	Ones
1	2
1	5



Answer

3) Built Types of sand castles

23  31 

How many sand castles are there in all? +

Tens	Ones
2	3
3	1



Answer

4) Shells collected at the beach

49  30 

How many shells are collected altogether? +

Tens	Ones
4	9
3	0



Answer

5) Animals at the beach

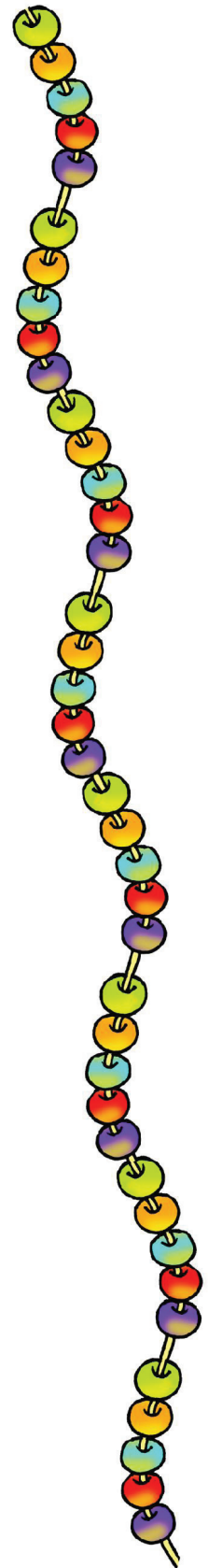
16  22 

How many animals are there in total? +

Tens	Ones
1	6
2	2



Answer



Addition of 2-digit number with 1-digit number (Regrouping)

Sunny brought '12' carrots and Bunny brought '9' carrots.

How many carrots did they bring together?

Sunny brought 12 carrots = 10 carrots + 2 carrots

Bunny brought 9 carrots = 0 carrots + 9 carrots

Total Carrots = $12 + 9 = ?$



Step 1 :

We begin adding ones place numbers.

2 ones + 9 ones = 11 ones

$$2 + 9 = 11$$



Regroup 11 ones as 1 Ten and 1 one



Tens	Ones
1	2
+	(1) 9
	1

write '1' in ones place, and carry over '1' ten to the tens place.

Step 2 :

Now add tens.

Add tens place numbers.

1 ten + 1 ten (carry forward) = 2 tens.

write '2' in tens place.

$$12 + 9 = 21$$

Sunny and Bunny brought 21 carrots together.

Tens	Ones
1	2
+	9
2	1



Do these

a)

Tens	Ones
2	2
+	8

b)

Tens	Ones
3	4
+	7

c)

Tens	Ones
4	3
+	9

Addition of 2-digit numbers (Regrouping)

Kala and Priya want to buy story books. So, they collected money from their parents and also from their savings.

Kala has 

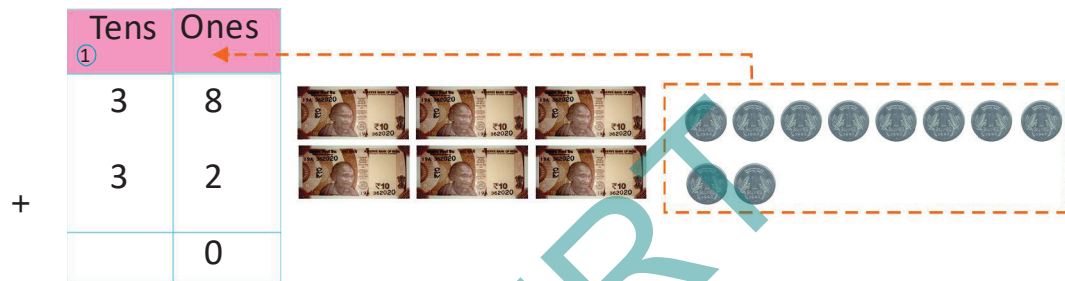
Priya has 

How much do they have together ?

Tens	Ones
3	8
3	2

$$38 + 32 = ?$$

Tens	Ones
3	8
+	3
	2
	0



Add ones place numbers first. $8 \text{ ones} + 2 \text{ ones} = 10 \text{ ones}$.

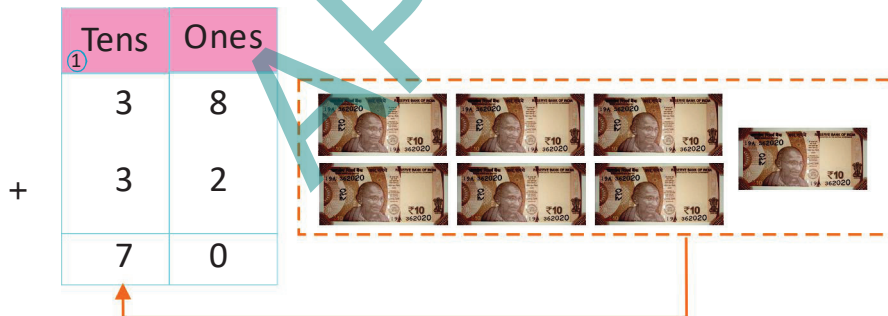
So, we regroup the 10 ones.  to 1 ten 

$10 \text{ ones} = 1 \text{ ten} + 0 \text{ ones}$.

Write '0' in ones place and carry forward '1' ten to tens place.

Now add the numbers in the tens place.

Tens	Ones
3	8
+	3
	2
7	0




Add tens place numbers = $3 \text{ tens} + 3 \text{ tens} + 1 \text{ ten (carry forward)}$

= 7 tens

$$38 + 32 = 70$$

So, Kala and Priya have a total of ₹70 together.

38 + 32 = ?	
Tens	Ones
3	8
+	3
	2
7	0

Do these

a)

Tens	Ones
3	7
+	4
	3

b)

Tens	Ones
5	6
+	1
	5

Word problems :

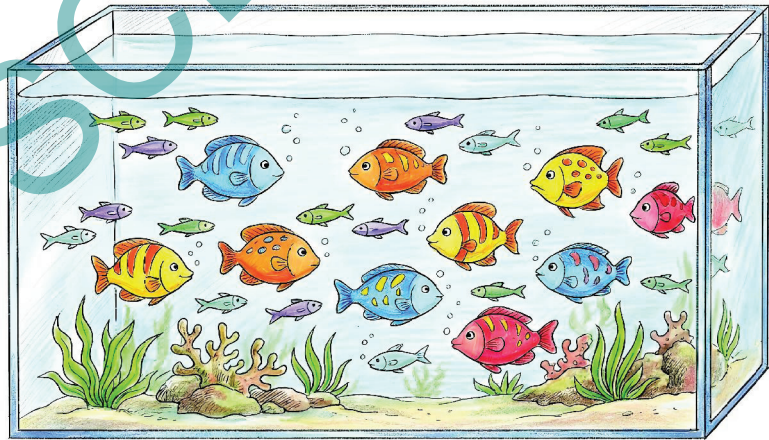
Example : In an aquarium, there are 18 big fish and 14 small fish. How many fish are there in total?

Step - 1 : Find the given important information in the problem.
We know that there are 18 big fish and 14 small fish.

Step - 2 : Decide what to do.
We need to find out the total number of fish.
So we must add.



	Tens	Ones
Big fish	= 1	8
Small fish	= + 1	4
Total fish	= 3	2



In a fruit garden there are 28 papaya trees and 26 banana trees.

How many total trees are there in the garden ?

	Tens	Ones
Papaya trees	= 2	8
Banana trees	= 2	6
Total trees	=	



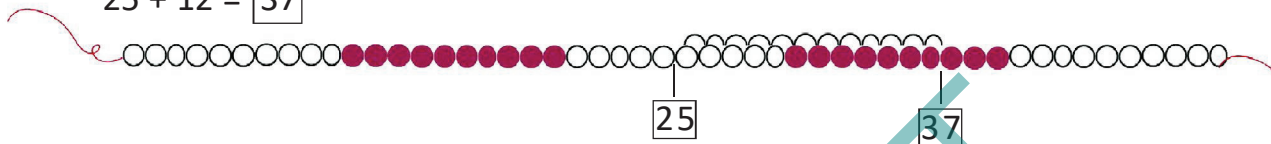
Addition with Poosala Danda (Beads chain)



In the addition
forward counting by
Ones on poosala
danda

Counting by ones

$$25 + 12 = \boxed{37}$$



Forward Counting
by tens on
poosala danda



Counting by tens

$$15 + 30 = \boxed{45}$$



Do these

Add the numbers given below on poosala danda by tens and ones method.

A. $15 + 25 = \boxed{}$



B. $20 + 20 = \boxed{}$



C. $12 + 14 = \boxed{}$



Addition on Numberline



It is difficult to count on Poosala danda every time. Let me write the numbers in place of beads.



I am calling this a numberline.



Do these

A. $13 + 14 =$



B. $24 + 16 =$



C. $11 + 22 =$



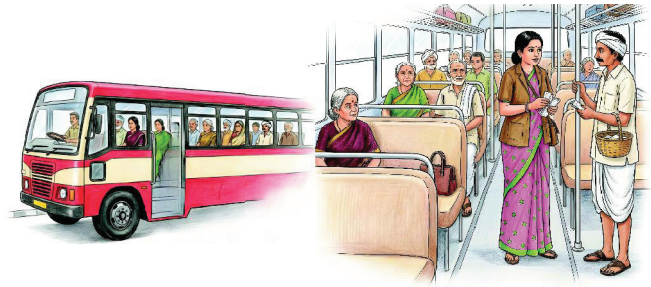
Observe the below number line and fill the box





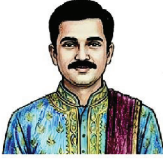

A. $22 +$ $= 38$



Traveling :

From Kurnool to Gooty the bus fare is ₹100. The bus conductor collecting the amount from passengers and giving tickets. Three of the passengers gave the amount to the conductor as shown below. Total amount given by each is equal to ₹100. Put (✓) mark, otherwise put (X) mark in the given boxes.



Passenger	Amount given	✓ or X
		
		
		

Think and discuss

Rajaiah had 25 cows and 4 oxen. In his farm How many total animals are there in rajaiash's farm.

(Sai and Riya solved above sum as follows)

Who added correctly? Justify your answer.

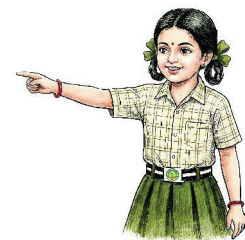


Tens	Ones
2	5
4	
6	5



Riya

Tens	Ones
2	5
	4
2	9



 **EXERCISE**

1) Fill in the blanks.

- A) $9 + 1 = \dots\dots\dots$
 B) $16 + 0 = \dots\dots\dots$
 C) $25 + 26 = \dots\dots\dots$

2) Do the following.

- A) $42 + 23 = \dots\dots$ B) $35 + 64 = \dots\dots\dots$ C) $33 + 47 = \dots\dots$ D) $25 + 69 = \dots\dots\dots$

3) Which number has to fill in the box for the sum ? ()

- a) 7 b) 4 c) 9

Tens	Ones
4	6
3	□
8	5

4) Check if the answers for the problems are right or wrong. Correct them, if they are wrong.

- a) $26 + 42 = 68$ b) $30 + 4 = 70$

5) Add and circle the correct answer.

a) $45 + 36$	81	85	76
b) $68 + 23$	81	71	91
c) $50 + 49$	90	99	89

6) Put a (✓) mark on the notes and coins you will use to buy this doll.



a)	
b)	

Improve your learning

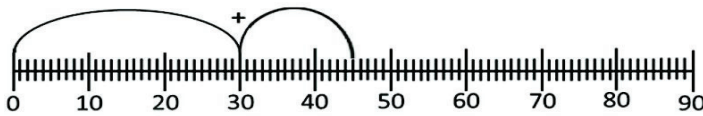
1. Which picture has 4 ones and 3 tens. ()



2. 14 more than 72 is _____.

3. Write the number equals to 3 tens and 7 ones.

4. Look at the number line given below.



The addition represented on the number line is _____ ()

a) $30+12$ b) $30+15$ c) $30+18$

5. The total amount to buy these fruits is _____



₹ 40



₹ 25

6. Each plate contains 10 apples. If you add 9 more apples that total is? _____ ()



a) 29

b) 19

c) 39

Mapping of Domains with Concepts - Examples

S.No	Domain	Concepts
1.	Physical development	Recite the rhyme with action, Game with tamarind seeds
2.	Cognitive development	Adding numbers, Grouping, Regrouping Additions.
3.	Socio - Emotional and Ethical development	Recite the rhyme with action
4.	Language and literacy development	Recite the rhyme with action, Giving answers to questions
5.	Aesthetic and cultural development	Recite the rhyme with action,

Hari learned regrouping addition. The domain he achieved is _____.

UNIT 3

How Much Left



Learners will be able to :

- Do the subtraction of 2-digit numbers.(CG-8)
- Identify the mistakes in subtraction and correct the mistakes.(CG-8)
- Solves subtraction problems in different situations presented through pictures and stories.(CG-8)
- Solve daily life problems/situations based on subtraction of 2-digit numbers.(CG-7)
- Write the subtraction statements as addition statements (by using symbols).(CG-8)
- Solve grouping and regrouping subtractions.(CG-8)

Aadhya went to her garden to pick fruits, flowers and vegetables.



Answer the following questions.

1. What do you observe in the above two pictures?
2. a) How many mangoes are there in the first picture?
b) How many mangoes are left on the tree in the second picture?
c) How many mangoes did Aadhya pick?
3. a) How many roses are there in the first picture?
b) How many roses are left on the plant in the second picture?
c) How many roses did Aadhya pick?

4. a) How many brinjals are there in the first picture?
 b) How many brinjals are left on the plant in the second picture?
 c) How many brinjals did Aadhya pick?

Do these

a) 4

$$\begin{array}{r} - 2 \\ \hline \\ \hline \end{array}$$

b) 5

$$\begin{array}{r} - 4 \\ \hline \\ \hline \end{array}$$

c) 6

$$\begin{array}{r} - 5 \\ \hline \\ \hline \end{array}$$

d) 7

$$\begin{array}{r} - 3 \\ \hline \\ \hline \end{array}$$

Rhyme

Subtraction is my name
 Minus is my sign
 Take a way, left over
 difference and remaining
 All are same
 All are same
 If I have five and take away two
 I will have three
 that's easy to do
 Subtraction is fun
 come and do with me
 Clap - Clap - Clap.



Subtraction of 1-digit number from 2-digit numbers (without regrouping)

Kalyani purchased 18 eggs.
5 eggs were broken when she fell down.
How many eggs are remaining with her?



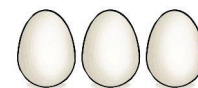
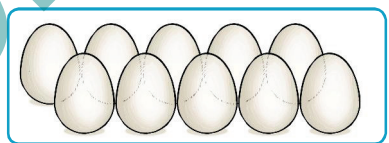
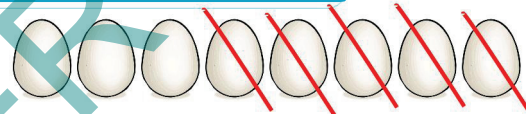
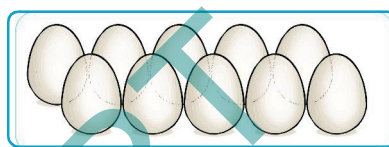
Tens	Ones
1	8
-	5
1	3

= 1 ten + 8 ones

= 5 ones

= 1 ten + 3 ones

= 13



Do these

Subtract

a)

Tens	Ones
2	5
-	2

= 2 tens + 5 ones

= 2 ones

= tens + ones

b)

Tens	Ones
4	7
-	4

= tens + ones

= ones

= tens + ones



Subtraction of 1-digit number from 2-digit numbers (with regrouping)

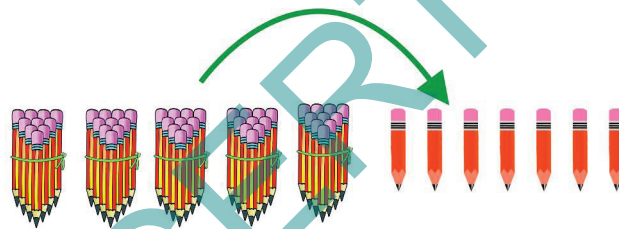
There were 57 passengers in a bus.
9 of them got down on the way. How
many passengers are left in the bus?



Step - 1 : Will you add or subtract? We are talking about passengers 'left' we will subtract.

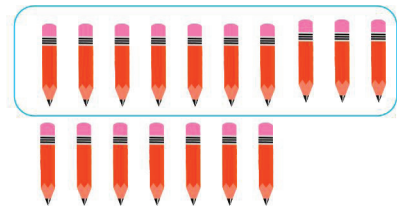
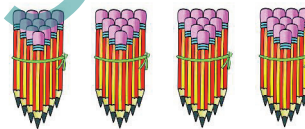
Tens	Ones
5	7
(-)	9

1 ten = 10 ones



Step - 2 : We cannot subtract 9 ones from 7 ones.
So, regroup 1 ten into 10 ones.

Tens	Ones
4 ⑤	17 ⑦
(-)	9
	8



$$\begin{aligned} \text{So, } 1 \text{ ten} + 7 \text{ ones} &= 10 \text{ ones} + 7 \text{ ones} \\ &= 17 \text{ ones} \\ 17 \text{ ones} - 9 \text{ ones} &= 8 \text{ ones} \end{aligned}$$

Step - 3 :

Tens	Ones
4 ⑤	17 ⑦
(-)	9
4	8

Write 8 ones under the ones column.

Remaining tens = 4 tens

No of tens to be removed from 4 tens.

4 tens - 0 tens = 4 tens

So, write 4 in the tens column.

Passengers left in the bus are 48.

Do these

1)

Tens	Ones
3 4	13 3
(-)	8
3	5

2)

Tens	Ones
5	6
(-)	8

3)

Tens	Ones
7	1
(-)	5

4) $32 - 6 = \underline{\quad}$

5) $42 - 9 = \underline{\quad}$

6) $53 - 8 = \underline{\quad}$

Tens	Ones
3	2
(-)	6

Tens	Ones
4	2
(-)	0

Tens	Ones
(-)	



7) Hussain has 15 chocolates. He gave 7 chocolates to his sister. How many chocolates are remaining with him?



Number of chocolates Hussain has =

Number of chocolates he gave to his sister =

Number of chocolates remaining with Hussain =

Tens	Ones
1	5
(-)	7

8) There are 72 pages in a story book. Tara read 9 pages in that book. How many more pages are to be read by Tara to complete the book?



=

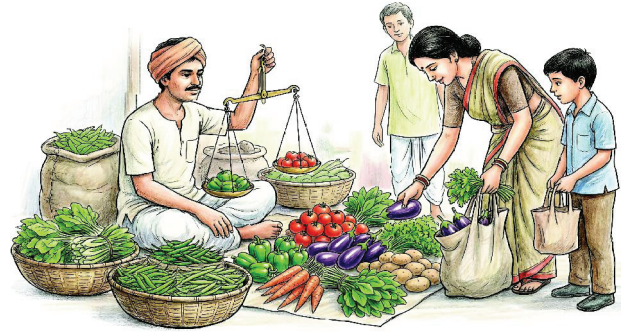
=

=

Tens	Ones
(-)	

Subtraction of 2-digit numbers from 2-digit numbers (without regrouping)

Vijay went to market with ₹ 95.
 He spent ₹ 43 to buy the vegetables.
 How much money is now
 left with Vijay?



Money taken to bazaar by Vijay =

Money spent by Vijay = (-)

Tens	Ones
9	5
4	3



Step - 1 : Subtract number in the ones place.

$$5 \text{ ones} - 3 \text{ ones} = 2 \text{ ones}$$

Write 2 in the ones column.

(-)

Tens	Ones
9	5
4	3
	2



Step - 2 : Subtract the number in tens place.

$$9 \text{ tens} - 4 \text{ tens} = 5 \text{ tens}$$

Write 5 in tens column.

(-)

Tens	Ones
9	5
4	3
5	2



So, the amount left with Vijay = ₹ 52

Do these

Subtract the following.

1) $57 - 41 = \underline{\quad}$

2) $65 - 23 = \underline{\quad}$

	Tens	Ones
	5	7
(-)	4	1

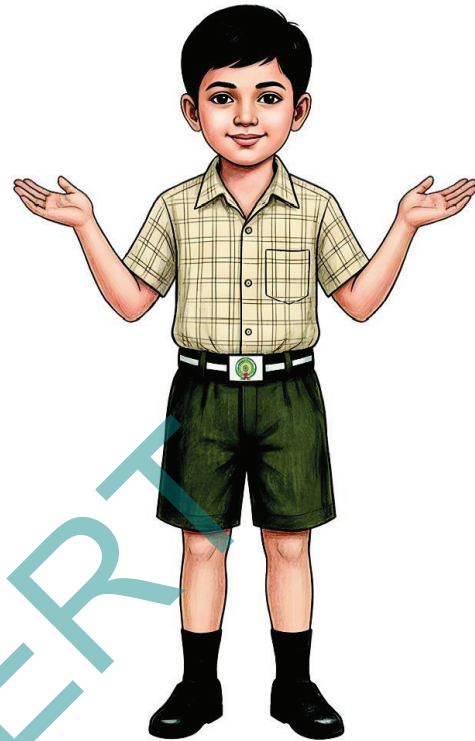
	Tens	Ones
	6	5
(-)	2	3

3) $26 - 13 = \underline{\quad}$

4) $59 - 41 = \underline{\quad}$

	Tens	Ones
(-)		

	Tens	Ones
(-)		



- 5) Satvika brought 78 chocolates on her birthday. She distributed 56 chocolates among her friends. How many chocolates are left with her?



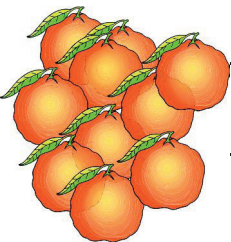
Number of chocolates Satvika brought =

Number of chocolates she distributed =

Number of chocolates left with her =

	Tens	Ones
(-)		

- 6) Rajia has 36 oranges. 4 of them are rotten. How many of them are in good condition?



=

=

=

	Tens	Ones
(-)		

Subtracting 2-digit number from 2-digit number (with regrouping)

Beemala purchased medicine for ₹ 12.

If she gave ₹ 50 to the shopkeeper, how much money does the shopkeeper return to Beemala ?



Amount given to the shopkeeper =	<table style="border-collapse: collapse; width: 100%;"> <tr> <th style="border: 1px solid black; padding: 2px 10px;">Tens</th> <th style="border: 1px solid black; padding: 2px 10px;">Ones</th> </tr> <tr> <td style="border: 1px solid black; text-align: center; padding: 5px;">5</td> <td style="border: 1px solid black; text-align: center; padding: 5px;">0</td> </tr> </table>	Tens	Ones	5	0			
Tens	Ones							
5	0							
Cost of medicine purchased =	<table style="border-collapse: collapse; width: 100%;"> <tr> <td style="border: 1px solid black; padding: 2px 10px;">(-)</td> <td style="border: 1px solid black; padding: 2px 10px;"></td> </tr> <tr> <th style="border: 1px solid black; padding: 2px 10px;">Tens</th> <th style="border: 1px solid black; padding: 2px 10px;">Ones</th> </tr> <tr> <td style="border: 1px solid black; text-align: center; padding: 5px;">1</td> <td style="border: 1px solid black; text-align: center; padding: 5px;">2</td> </tr> </table>	(-)		Tens	Ones	1	2	
(-)								
Tens	Ones							
1	2							

1 పది = 10 ఒకట్లు

Step - 1 : We subtract the ones first.

It is not possible to subtract 2 from 0.

So, we regroup 1 ten from the tens place into 10 ones.

Now, subtract 2 ones from 10 ones. (-)

$$10 \text{ ones} - 2 \text{ ones} = 8 \text{ ones}$$

Write 8 in the ones column.

4	<table style="border-collapse: collapse; width: 100%;"> <tr> <th style="border: 1px solid black; padding: 2px 10px;">Tens</th> <th style="border: 1px solid black; padding: 2px 10px;">Ones</th> </tr> <tr> <td style="border: 1px solid black; text-align: center; padding: 5px;">5</td> <td style="border: 1px solid black; text-align: center; padding: 5px;">0</td> </tr> <tr> <td style="border: 1px solid black; text-align: center; padding: 5px;">1</td> <td style="border: 1px solid black; text-align: center; padding: 5px;">2</td> </tr> <tr> <td style="border: 1px solid black; text-align: center; padding: 5px;"></td> <td style="border: 1px solid black; text-align: center; padding: 5px;">8</td> </tr> </table>	Tens	Ones	5	0	1	2		8	
Tens	Ones									
5	0									
1	2									
	8									

Step - 2 : Now, subtract the tens.

We have 4 tens.

So, 4 tens - 1 ten = 3 tens

Write 3 in the tens column

Write 3 in the ones column.

4	<table style="border-collapse: collapse; width: 100%;"> <tr> <th style="border: 1px solid black; padding: 2px 10px;">Tens</th> <th style="border: 1px solid black; padding: 2px 10px;">Ones</th> </tr> <tr> <td style="border: 1px solid black; text-align: center; padding: 5px;">5</td> <td style="border: 1px solid black; text-align: center; padding: 5px;">0</td> </tr> <tr> <td style="border: 1px solid black; text-align: center; padding: 5px;">1</td> <td style="border: 1px solid black; text-align: center; padding: 5px;">2</td> </tr> <tr> <td style="border: 1px solid black; text-align: center; padding: 5px;">(-)</td> <td style="border: 1px solid black; text-align: center; padding: 5px;"></td> </tr> <tr> <td style="border: 1px solid black; text-align: center; padding: 5px;">3</td> <td style="border: 1px solid black; text-align: center; padding: 5px;">8</td> </tr> </table>	Tens	Ones	5	0	1	2	(-)		3	8	
Tens	Ones											
5	0											
1	2											
(-)												
3	8											

So, the amount to be returned by the shopkeeper = ₹38.

Do these

Subtract the following by regrouping.

- 1) $52 - 38 = \dots\dots\dots$ 2) $64 - 28 = \dots\dots\dots$ 3) $70 - 27 = \dots\dots\dots$

	Tens	Ones
	5	2
(-)	3	8

	Tens	Ones
	6	4
(-)	2	8

	Tens	Ones
	7	0
(-)	2	7

- 4) $47 - 28 = \dots\dots\dots$ 5) $52 - 26 = \dots\dots\dots$ 6) $73 - 57 = \dots\dots\dots$

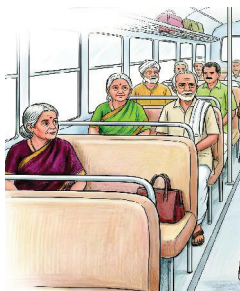
	Tens	Ones
(-)		

	Tens	Ones
(-)		

	Tens	Ones
(-)		



- 7) There are 45 seats in a bus. If 35 passengers are seated, How many seats are vacant ?



Number of seats in the bus =

Number of passengers seated in the seats = (-)

Number of vacant seats in the bus =

Tens	Ones

8. How much is 64 more than 39?

	Tens	Ones
(-)		

9. How much is 27 less than 92 ?

	Tens	Ones
(-)		

Word problems

Akbar bought 75 chocolates. He distributed 58 chocolates among his friends on his birthday. How many chocolates are left with him?



Step - 1 : Find the given important information in the problem. Akbar distributed 58 chocolates from 75 to his friends were distributed.

Step - 2 : Understand what and how to do.

We need to find out how many chocolates are left. So, we must subtract.

Number of chocolates with Akbar =

Number of chocolates distributed =

Number of chocolates left with Akbar =

Tens	Ones
6 7	5
(-) 5	8
1	7



How can I check whether it is correct or wrong?

Do these

- 1) A school library has 83 story books in English and 75 story books in Telugu. How many more story books are there in English than Telugu ?



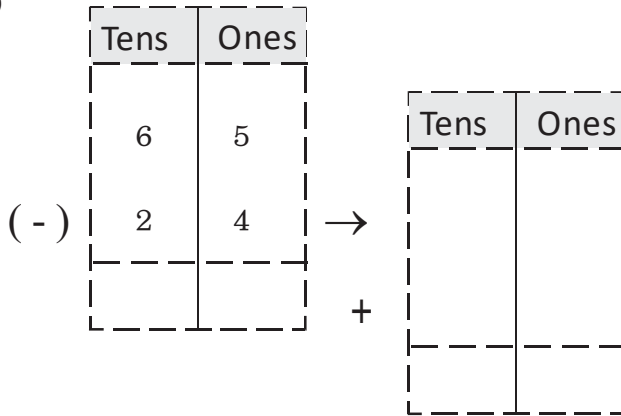
Number of English story books =

Number of Telugu story books = -

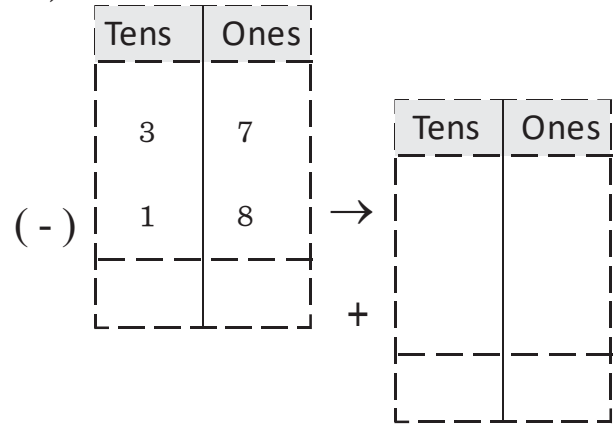
Number of English story books more than Telugu =

Tens	Ones

1)



2)

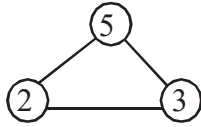


Fact family : Addition and Subtraction

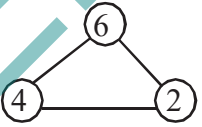
Each group contains the numbers in a fact family

Add or subtract using the 3 numbers.

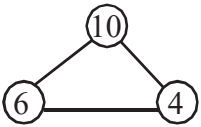
Example:

 $2 + 3 = 5$ $3 + 2 = 5$ $5 - 3 = 2$ $5 - 2 = 3$
--

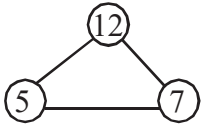
1)

 $4 + 2 =$ $\dots + \dots =$ \dots $6 - 4 = 2$ $\dots - \dots =$ \dots

2)

 $\dots + \dots =$ \dots $\dots - \dots =$ \dots $\dots - \dots =$ \dots

3)

 $\dots + \dots =$ \dots $\dots - \dots =$ \dots $\dots - \dots =$ \dots
--

Look at the subtraction done by Manisha, Ashish and Ismail.

Manisha	
Tens	Ones
8	4
(-) 2	8
6	4

Ashish	
Tens	Ones
8	④ 14
(-) 2	8
6	6

Ismail	
Tens	Ones
7 ⑧	④ 14
(-) 2	8
5	6

Who did it correctly ?

Observe let us who had done the mistakes

Manisha :

Manisha subtracted 4 ones from 8 ones. Actually subtract 8 ones from 4 ones (borrowing)

Ashish :

Subtraction of 8 ones from 4 ones is not possible.

So, He regrouped 1 ten into ten ones.

Hence, 1 ten + 4 ones = 14 ones.

So, 14 ones – 8 ones = 6 ones.

But, he didn't reduce the number in tens place.

Ismail : Now, observe the Subtraction done by Ismail.

He did correctly.



If there are any mistakes, discuss with your friend and correct it.

a)

Tens	Ones
2	5
(-) 1	7
1	8

b)

Tens	Ones
3	2
(-) 2	6
1	4

c)

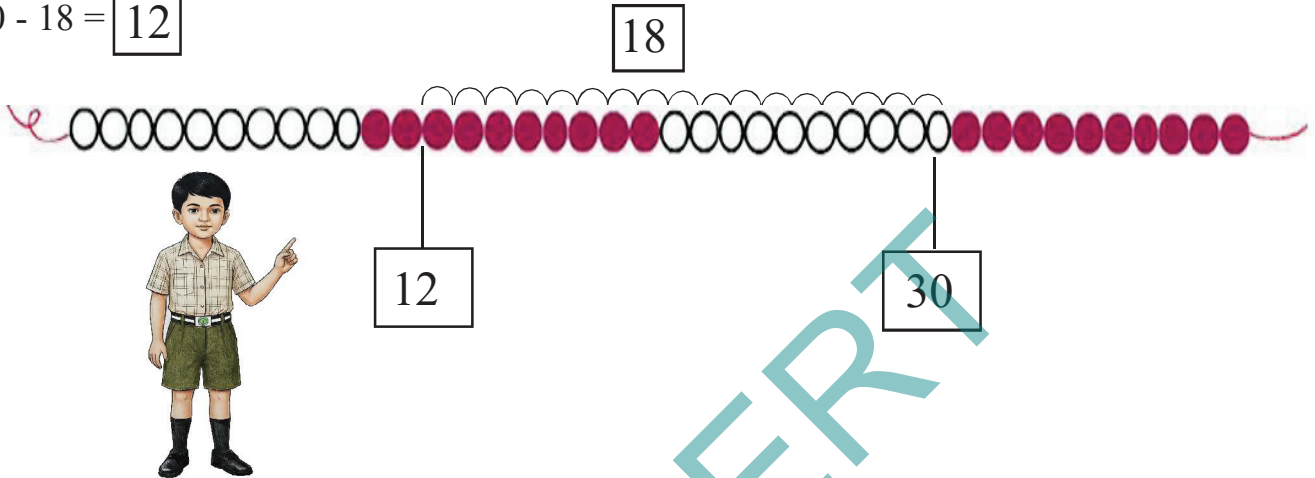
Tens	Ones
4	3
(-) 1	7
2	6

Subtraction on Poosala danda (Beads chain).

Venu and Ravi used two different methods to do the subtraction on poosala danda.

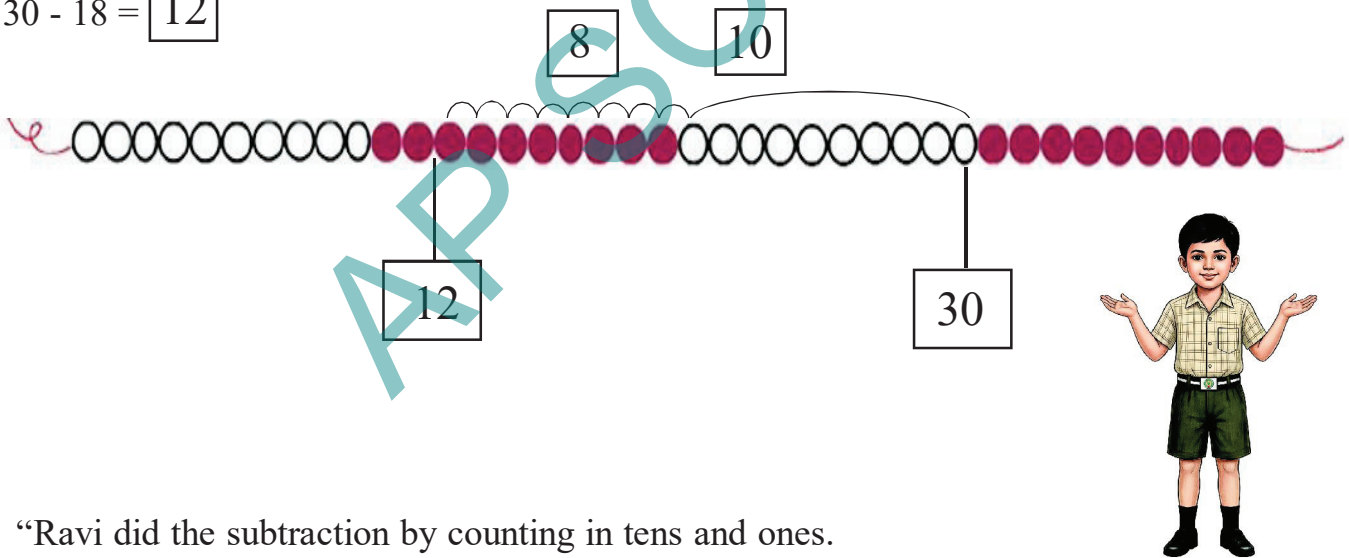
Which method is correct?

$$30 - 18 = \boxed{12}$$



Venu did the subtraction by counting one by one (ones).

$$30 - 18 = \boxed{12}$$



“Ravi did the subtraction by counting in tens and ones.

Both Venu and Ravi used correct methods.

Venu counted one by one. Ravi counted in two ways tens and ones.

Do these

A. $25 - 12 = \square$



B. $15 - 10 = \square$



C. $32 - 25 = \square$



D. $40 - 33 = \square$



Fill in the boxes with correct numbers.

1. $35 - \square = 25$



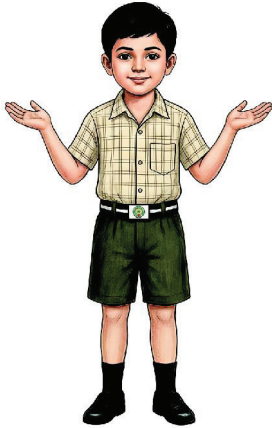
2. $27 - \square = 12$



3. $40 - \square = 18$



Subtraction on Numberline



I don't have
Poosala danda.
What can I do?

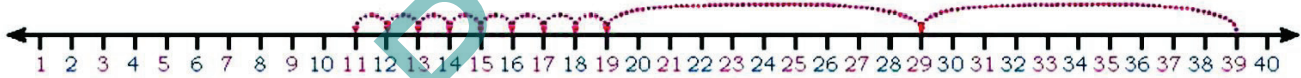
Let us make
Poosala danda on
paper. It is called
Number line.



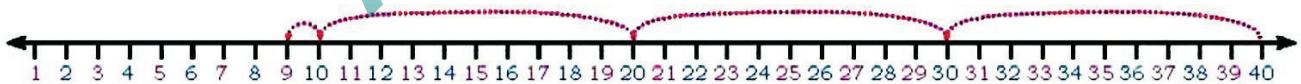
Do these



A. $26 - 15 = \square$



B. $39 - 28 = \square$



C. $\square - \square = \square$



D. $38 - 11 = \square$



EXERCISE



Do the following subtractions.

- 1) $32 - 19 = \dots\dots\dots$ 2) $54 - 28 = \dots\dots\dots$ 3) $80 - 46 = \dots\dots\dots$ 4) $93 - 69 = \dots\dots\dots$

	Tens	Ones
	3	2
-	1	9

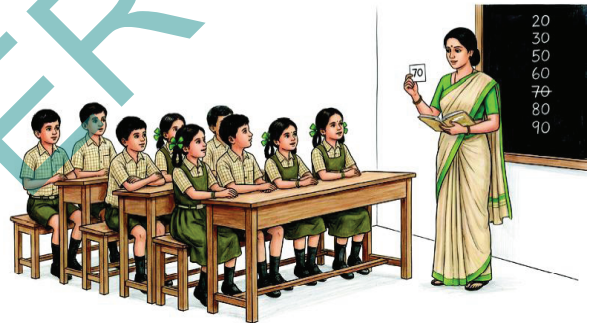
	Tens	Ones
-		

	Tens	Ones
-		

	Tens	Ones
-		

- 5) Subtract the number in the columns from the number in the rows. Fill in the other boxes.

-	60	50	30	20
90	30			
80				
70				
60				



- 6) Rajini bought books for ₹39. She gave ₹50 to the shopkeeper. How much money will she get back?
- 7) Kamala read 42 pages in a book and Deepthi read 28 pages. How many pages did Kamala read more than Deepthi?
- 8) Change the subtraction fact into addition fact.

$$30 - 20 = 10$$

Addition fact =

- 9) Fill in the boxes with appropriate digit. The difference is 25.


a)

T	O
6	□
□	8
<hr/>	
2	5

b)

T	O
□	2
5	□
<hr/>	
2	5

Improve your learning

1. $62 - 25 = \underline{\hspace{2cm}}$. What should be written in the blank? ()
 a) 37 b) 43 c) 47
2. What number do you get when you take away 5 from 56? _____
3. 

The above picture represents ()
 a) 3 tens - 1 ten 2 ones b) 3 tens - 2 ones c) 3 tens - 10 ones
4. There are 70 marbles in a bag. 20 marbles are taken away. How many marbles are left?
5. The difference between the two numbers is 9. Identify the two number from the following. ()
 a) 32-21 b) 45-35 c) 28-19
6. Fill the boxes with suitable numbers. ()

3	8
(-) 1	<input style="width: 20px; height: 15px;" type="text"/>
<input style="width: 20px; height: 15px;" type="text"/>	9

a) 8, 1 b) 9, 1 c) 3, 1
7. Sandhya solved $43 - 17$ and got 36. Use addition to prove if she is right or wrong. Show your work.

Mapping of Domains with Concepts - Examples

S.No	Domain	Concepts
1.	Physical development	Recite the rhyme with action
2.	Cognitive development	Subtracting Numbers with grouping, without grouping subtraction
3.	Socio - Emotional and Ethical development	Recite the rhyme with action
4.	Language and literacy development	Recite the rhyme with action, Giving answers to questions.
5.	Aesthetic and cultural development	Recite the rhyme with action

Shama learnt addition and subtraction facts. The domain she achieved is _____.