



Math

PRIMER

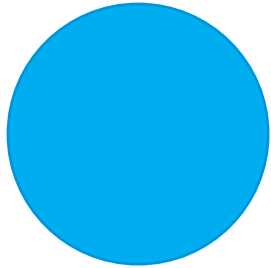
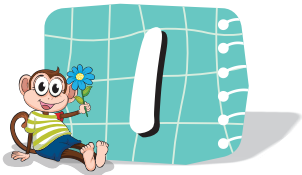
Written by:-
Abhinav Gupta



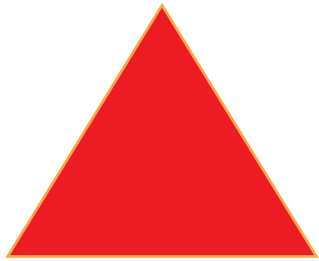
Contents

1.	Basic Shapes	3
2.	Big and Small	5
3.	Heavy and Light	6
4.	Long and Short	7
5.	Tall and Short	8
6.	Fat and Slim	9
7.	Thick and Thin	10
8.	Many and Few	11
9.	More and Less	12
10.	Near and Far	13
11.	Inside and Outside	14
12.	Numbers in Forward Order Understanding 11 to 20	15
13.	Numbers 21 to 100 with Numbers Names	16
14.	Backward Counting (100 to 1)	18
15.	Before, After, In Between	21
16.	Comparing the Number	23
17.	Comparison of Number	24
18.	Ones and Tens	25
19.	Sort Out Tens and Ones	29
20.	Ascending and Descending Order	30
21.	Skip Counting	31
22.	Addition of Numbers	33
23.	Addition on Number Line	37
24.	Addition by Column	40
25.	Addition (Two-digit numbers)	42
26.	Subtraction of Numbers	44
27.	Subtraction on Number Line	48
28.	Subtraction using Number Line	50
29.	Subtraction Column	51
30.	Subtraction of Two-Digit Number	52
31.	Multiplication of Numbers	55
32.	Tables	58
33.	Multiplication (By using Tables)	61
34.	Division	64
35.	Patterns	68
36.	Money	69

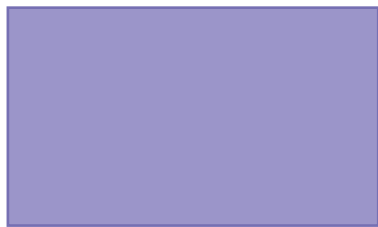
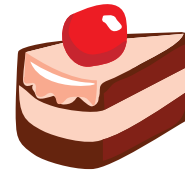
Basic Shapes



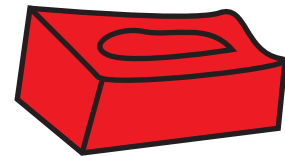
This is a **Circle**.
It is round.
It has no sides or corner.



This is a **Triangle**.
It has three sides and three corners.
Its all sides may or may not be equal.



This is a **Rectangle**.
It has four sides and four corners.
Its opposite sides
are equal.



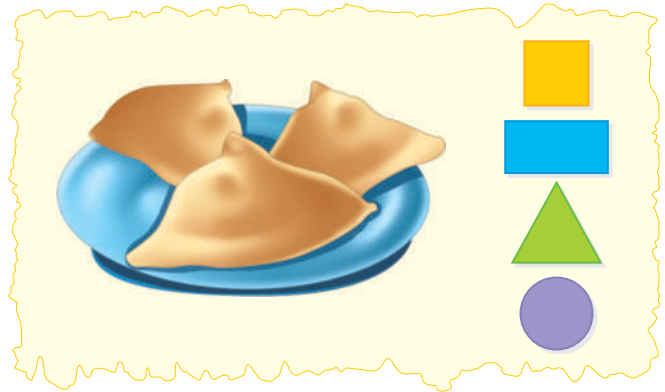
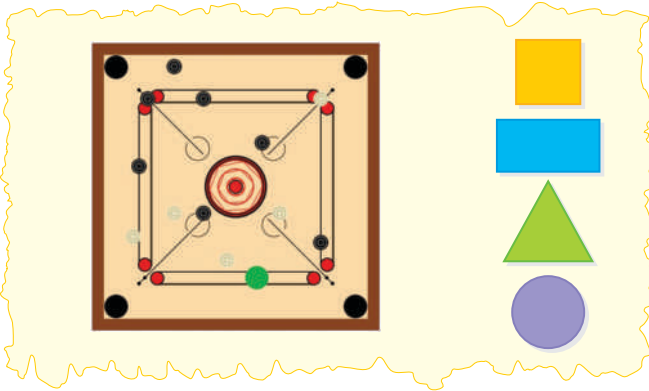
This is a **Square**.
It has four sides and four corners.
Its all four sides are equal.





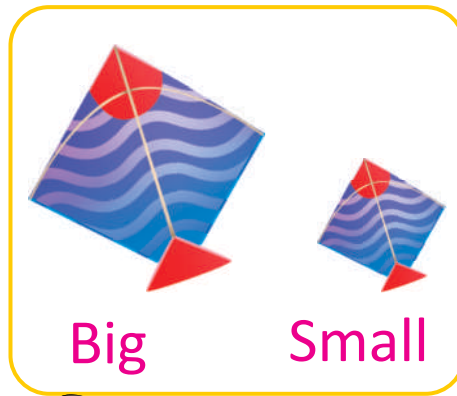
EXERCISE

Draw a line to match the shapes :





Big and Small



EXERCISE

Write **B** for big object and **S** for small object:



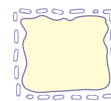
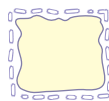
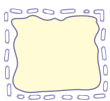


Heavy and Light

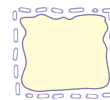
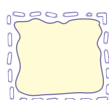
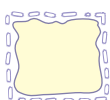


EXERCISE

Write **H** for heaviest and **L** for lightest object.

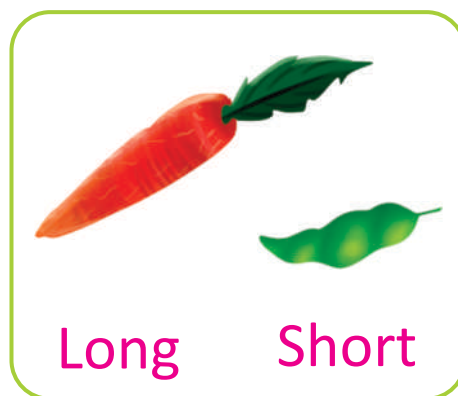
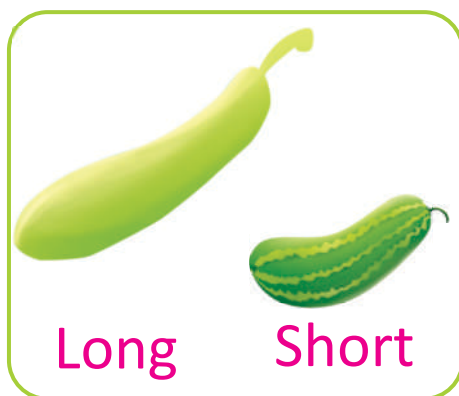
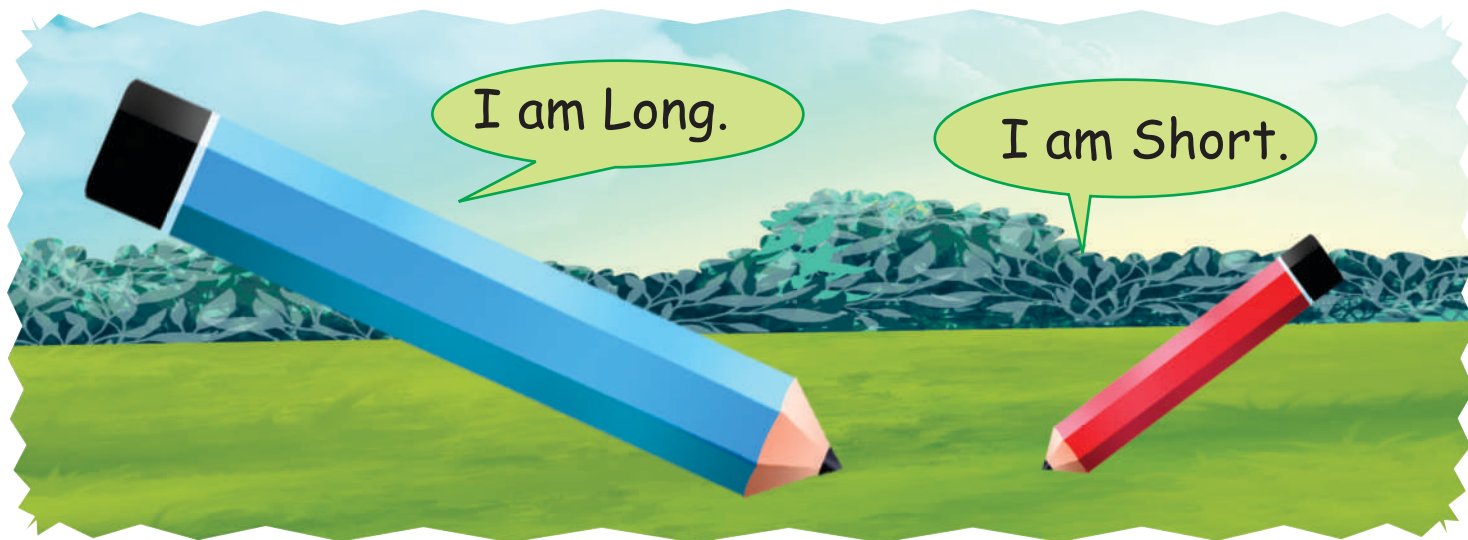


Tick (✓) for the heavier object and cross (✗) for the lighter object.



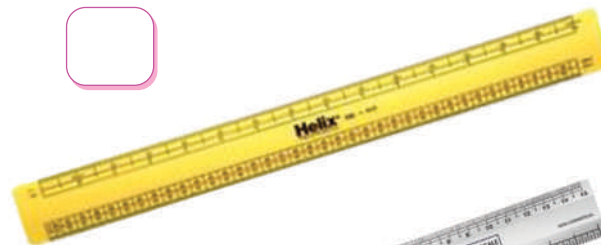


Long and Short



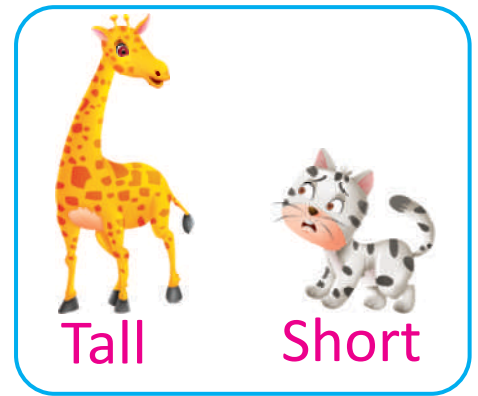
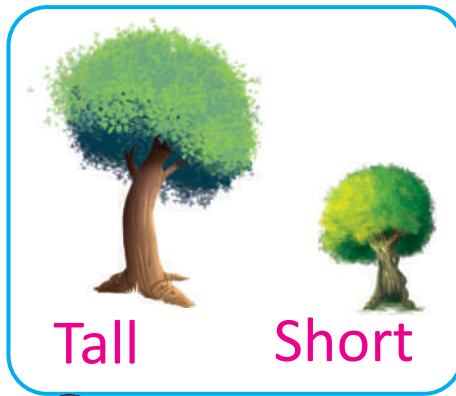
EXERCISE

Write **L** for long object and **S** for short object:



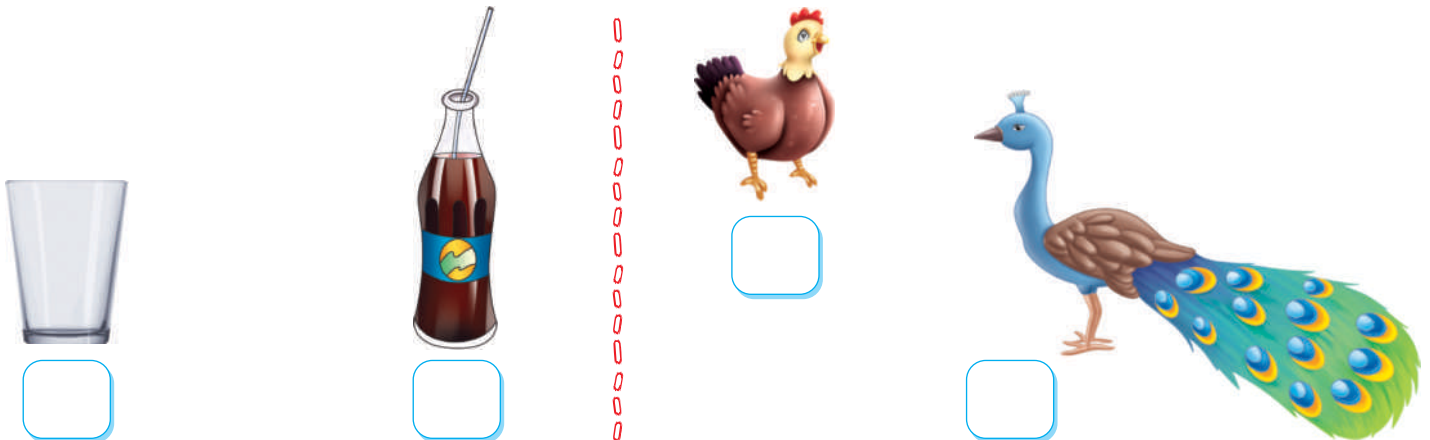


Tall and Short



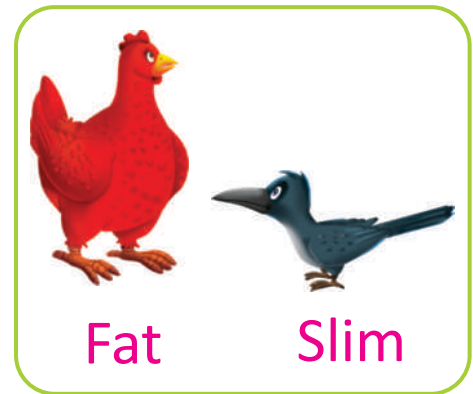
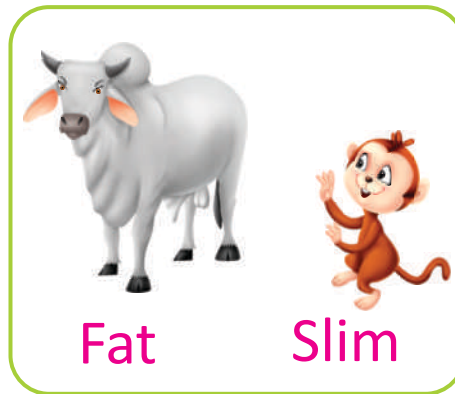
EXERCISE

Write **T** for tall object and **S** for short object:





Fat and Slim

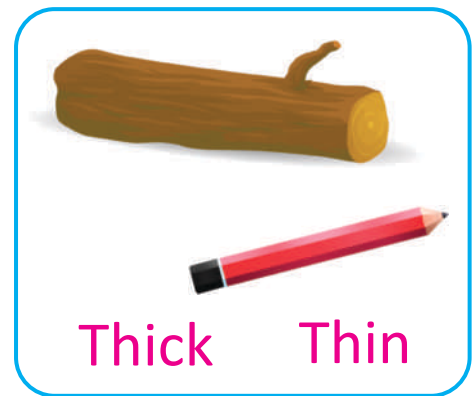
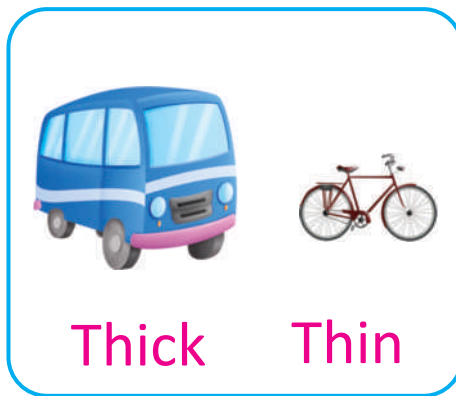


Write **F** for fat object and **S** for slim object:





Thick and Thin



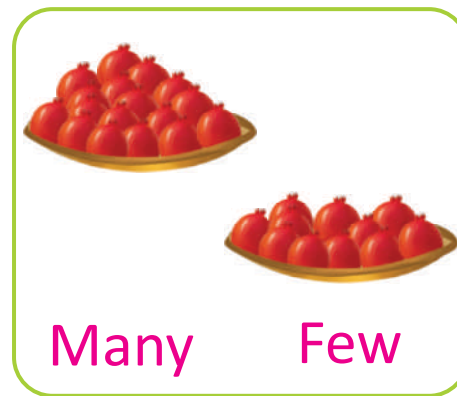
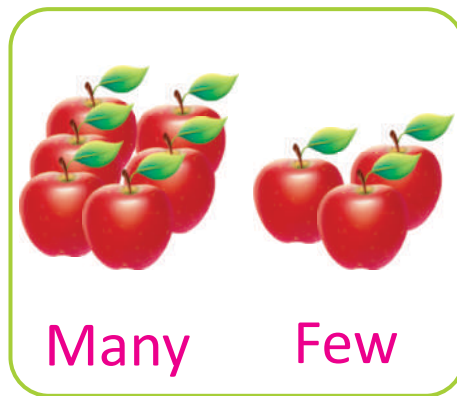
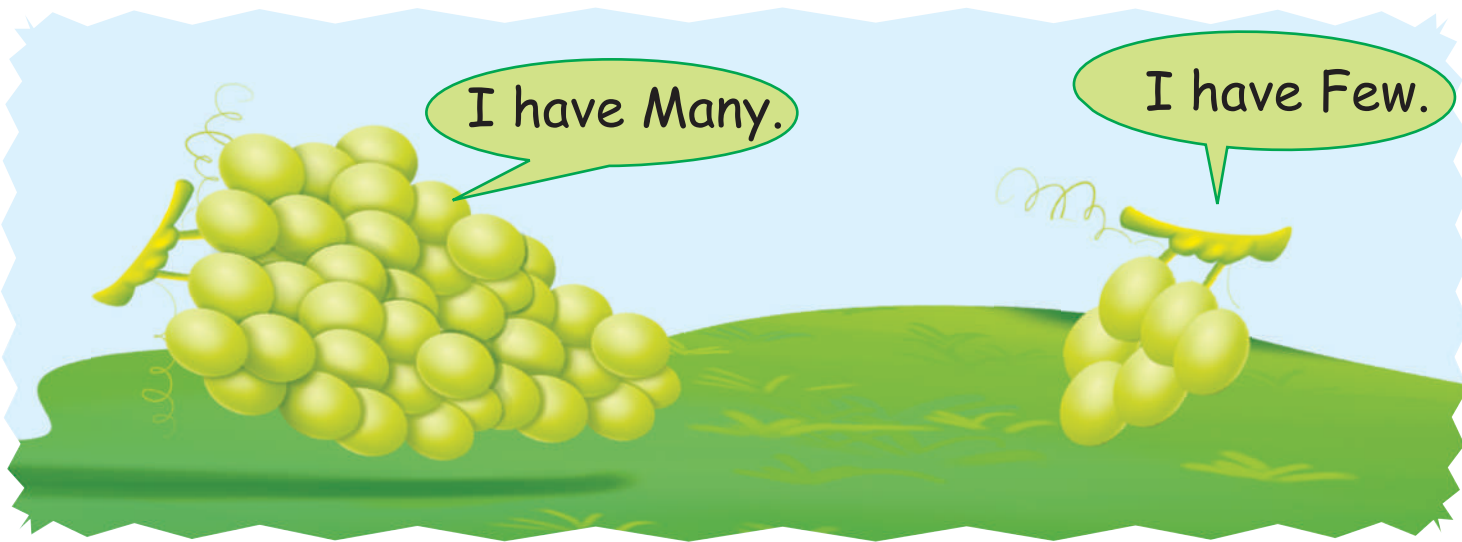
EXERCISE

Tick (✓) the thicker object and cross (✗) the thin one.



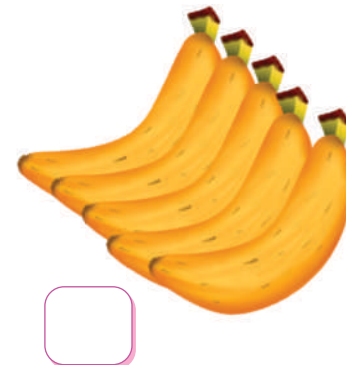
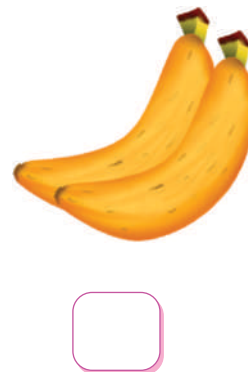
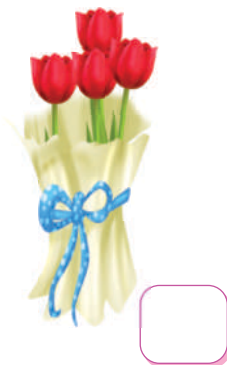


Many and Few



EXERCISE

Write **M** for many object and **F** for few object:



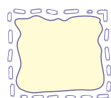
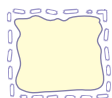
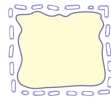
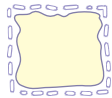
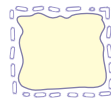
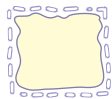


More and Less



EXERCISE

Tick (✓) for the collection which has more objects:





Near and Far



EXERCISE

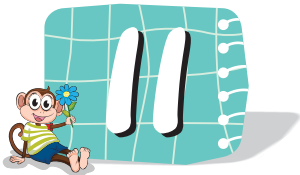
Tick (✓) fish which is near the mermaid and cross (✗) the fish which is far from the mermaid.



Tick (✓) which is far from the tree and cross (✗) which is near the tree.

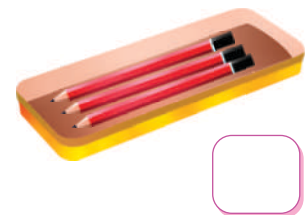


Inside and Outside



EXERCISE

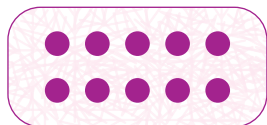
Write **I** for inside object and **O** for outside object.



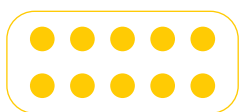


Numbers in Forward Order

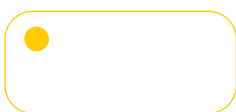
Understanding 11 to 20



10 balls



+



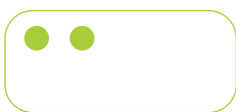
$10 + 1$

11

Eleven



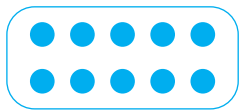
+



$10 + 2$

12

Twelve



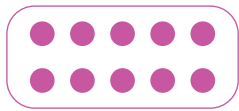
+



$10 + 3$

13

Thirteen



+



$10 + 4$

14

Fourteen



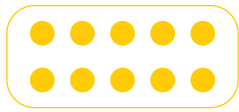
+



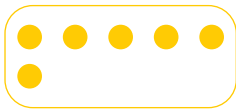
$10 + 5$

15

Fifteen



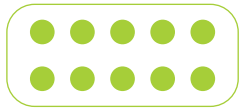
+



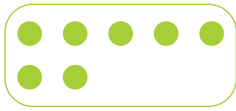
$10 + 6$

16

Sixteen



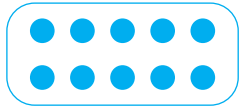
+



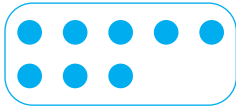
$10 + 7$

17

Seventeen



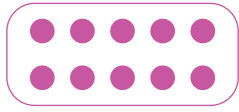
+



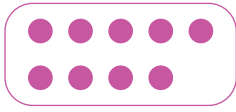
$10 + 8$

18

Eighteen



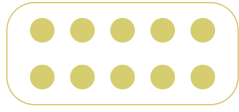
+



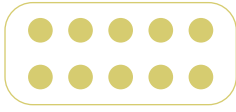
$10 + 9$

19

Nineteen



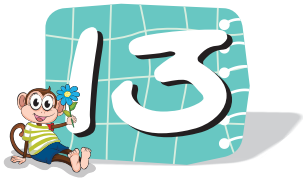
+



$10 + 10$

20

Twenty



Numbers 21 to 100 with Number Names

21 Twenty One	22 Twenty Two	23 Twenty Three	24 Twenty Four	25 Twenty Five	26 Twenty Six	27 Twenty Seven	28 Twenty Eight	29 Twenty Nine	30 Thirty
31 Thirty One	32 Thirty Two	33 Thirty Three	34 Thirty Four	35 Thirty Five	36 Thirty Six	37 Thirty Seven	38 Thirty Eight	39 Thirty Nine	40 Forty
41 Forty One	42 Forty Two	43 Forty Three	44 Forty Four	45 Forty Five	46 Forty Six	47 Forty Seven	48 Forty Eight	49 Forty Nine	50 Fifty
51 Fifty One	52 Fifty Two	53 Fifty Three	54 Fifty Four	55 Fifty Five	56 Fifty Six	57 Fifty Seven	58 Fifty Eight	59 Fifty Nine	60 Sixty
61 Sixty One	62 Sixty Two	63 Sixty Three	64 Sixty Four	65 Sixty Five	66 Sixty Six	67 Sixty Seven	68 Sixty Eight	69 Sixty Nine	70 Seventy
71 Seventy One	72 Seventy Two	73 Seventy Three	74 Seventy Four	75 Seventy Five	76 Seventy Six	77 Seventy Seven	78 Seventy Eight	79 Seventy Nine	80 Eighty
81 Eighty One	82 Eighty Two	83 Eighty Three	84 Eighty Four	85 Eighty Five	86 Eighty Six	87 Eighty Seven	88 Eighty Eight	89 Eighty Nine	90 Ninety
91 Ninety One	92 Ninety Two	93 Ninety Three	94 Ninety Four	95 Ninety Five	96 Ninety Six	97 Ninety Seven	98 Ninety Eight	99 Ninety Nine	100 One Hundred

Complete the forward counting **1** to **100** :

1		3			6				10
	12			15	16			19	
			24				28		
	32				36			39	
			44				48		50
		53				57		59	
	62			65			68		
71			74						80
		83			86			89	
	92			95					100



Backward Counting (100 to 1)

100	99	98	97	96	95	94	93	92	91
90	89	88	87	86	85	84	83	82	81
80	79	78	77	76	75	74	73	72	71
70	69	68	67	66	65	64	63	62	61
60	59	58	57	56	55	54	53	52	51
50	49	48	47	46	45	44	43	42	41
40	39	38	37	36	35	34	33	32	31
30	29	28	27	26	25	24	23	22	21
20	19	18	17	16	15	14	13	12	11
10	9	8	7	6	5	4	3	2	1

Fill in the missing backward numbers:

100									
	89							82	
		78					73		
			67			64			
				56	55				
				46	45				
			37			34			
		28					23		
	19							12	
10									1



Write the number names.

59

94

85

72

34

57

47

62

68

89

Write the numbers for the following number names.

Eighty Two =

Seventy Nine =

Ninety Five =

Eighty Seven =

Fifty Four =

Ninety Nine =

Hundred =

Sixty Seven =

Seventy Seven =

Fifty Eight =

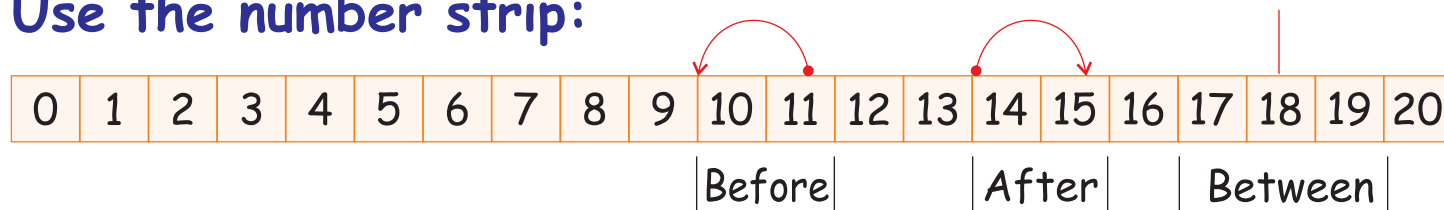
Sixty Two =

Sixty Three =



Before, After, In Between

Use the number strip:



Write the numbers that comes **before**:

10	11		19		18		14
	17		20		16		12

Write the numbers that comes **after**:

10	11	17		13		19	
12		18		15		16	

Write the numbers that comes **between**:

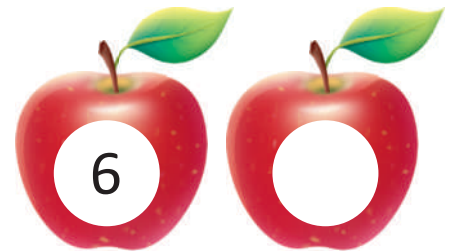
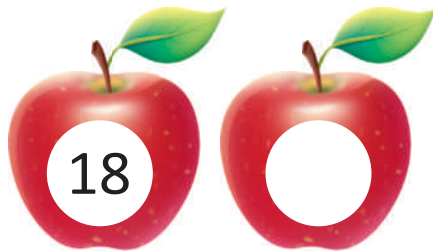
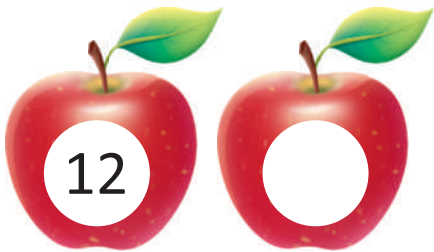
17	18	19	18		20	12		14
16		18	15		17	13		15

For Teacher: If the students are familiar with their roll numbers, those can be used to reinforce the concept. Call out a roll number and ask the students before that number to stand up or ask for the student after the number. Discuss roll numbers from 1-20 only.



EXERCISE

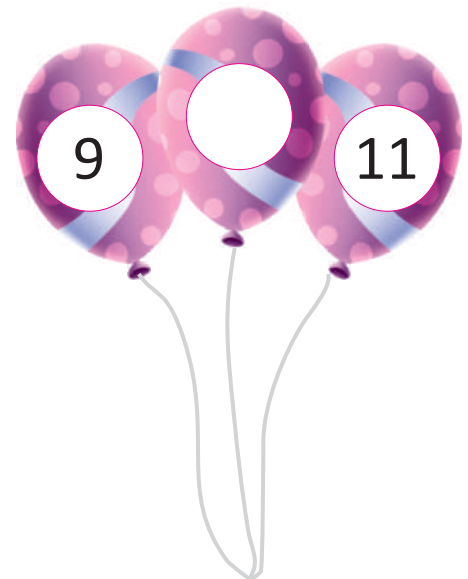
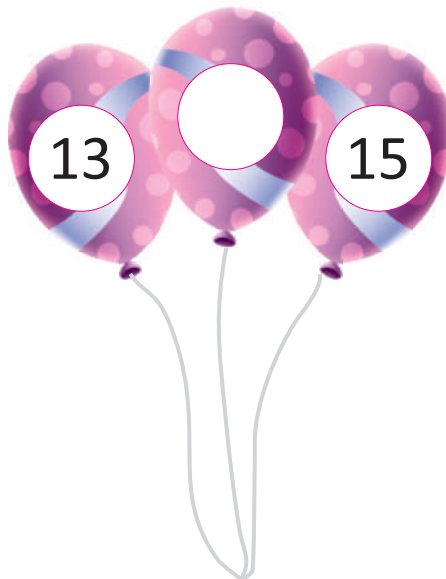
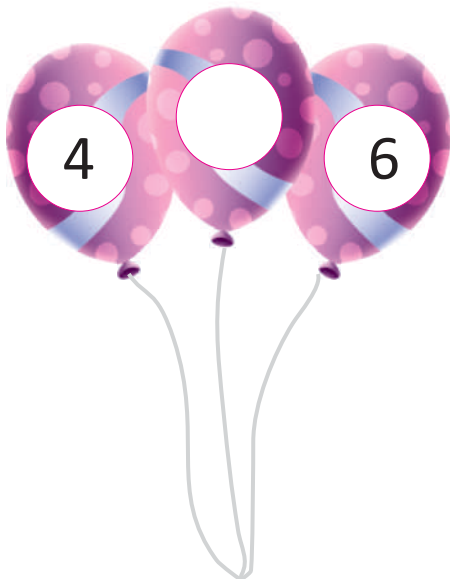
Write the number that comes after the given numbers :



Write the number that comes before the given numbers :



Write the numbers that comes between the given numbers :





Comparing the Number

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
---	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----

Use the number strip to compare the two numbers in each group.
Circle (○) the bigger number.

9 12

10 17

14 19

15 18

11 18

7 13

13 15

16 10

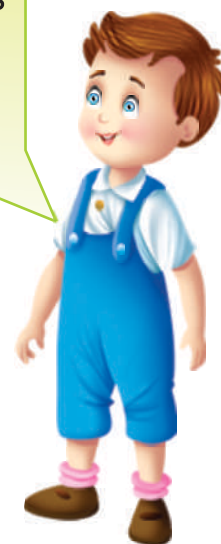
10 20

6 5

12 19

17 07

The number that is farther away from zero is the greater number.



Use the number strip to compare the two numbers in each group.
Ring the smaller number.

8 13

16 9

13 3

10 16

18 11

15 17

14 20

19 12

18 17

16 10

The number that nearer to away from zero is the smaller number.





Comparison of Number

Greater Than



>



These are 5 snails.

These are 3 snails.

Now, we compare:



>



1 snail is left.

Or, 4 snails are more than 3 snails.

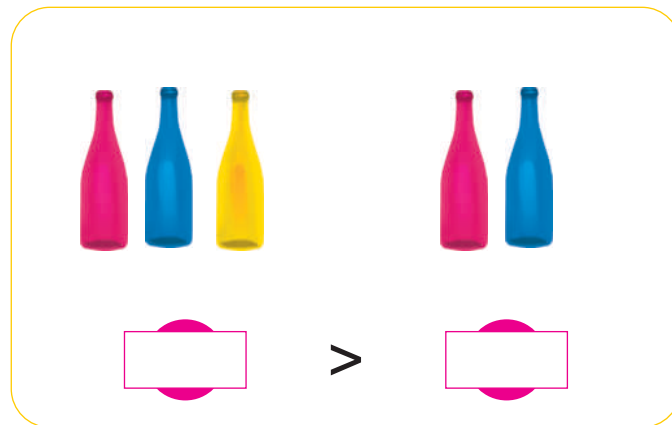
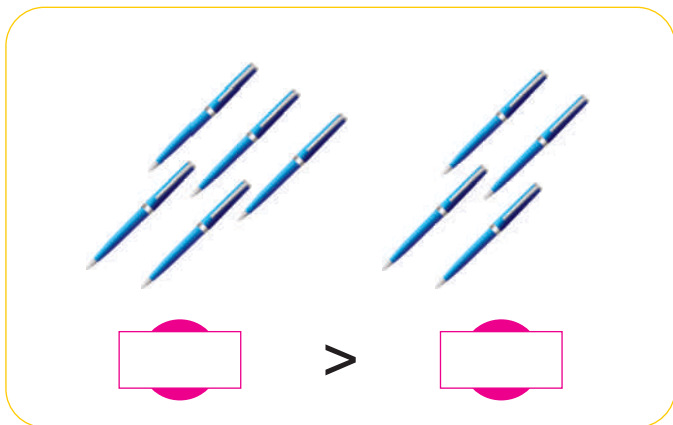
Or, 4 is greater than 3.

We write it as : $4 > 3$.

The sign ' $>$ ' means is greater than.

Greater number is placed towards the open mouth.

Compare and write the numbers in the box.



Less Than



These are 5 bats.

Now, we compare:



These are 6 bats.



1 bat is left.

Or, 5 bats are less than 6 bats.

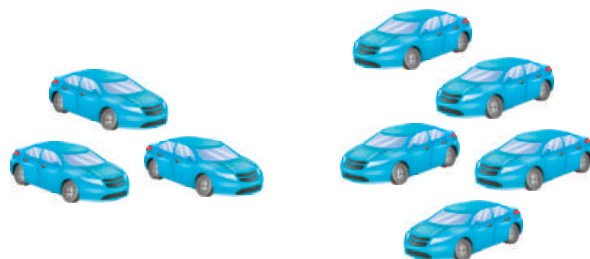
Or, 5 is less than 6.

We write it as : $5 < 6$.

The sign ' $<$ ' means is less than.

Smaller number is placed towards the closed side.

Compare and write the numbers in the box.



Equal to



These are 5 horses.
Now, we compare:



These are 5 horses.

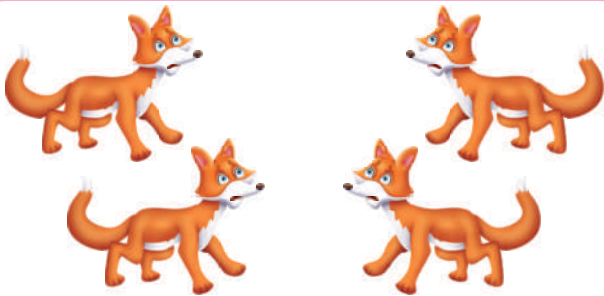


=



No, horse is left out.
Or, 5 horses are equal to 5 horses.
Or, 5 is equal to 5.
We write it as : $5 = 5$.
The sign '=' means is equal to.

Compare and write the numbers:



=

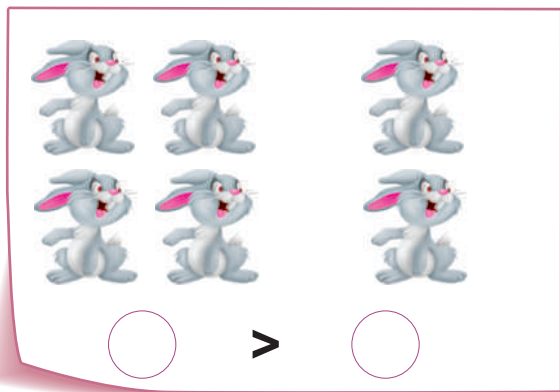
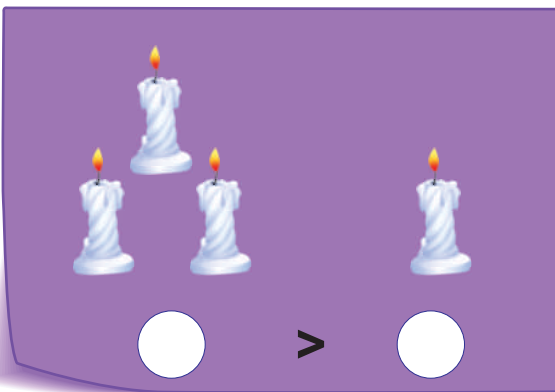
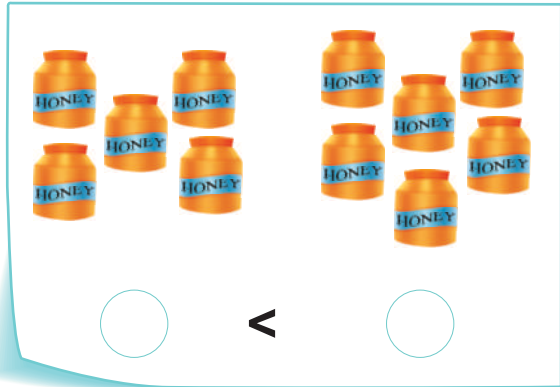
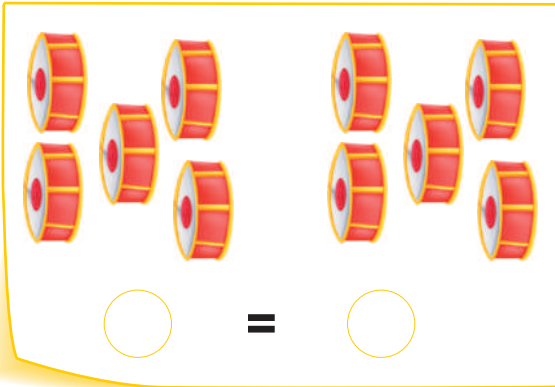


=

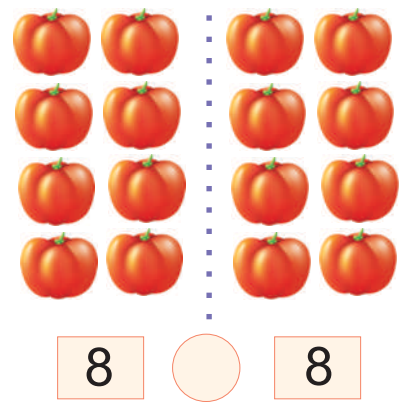
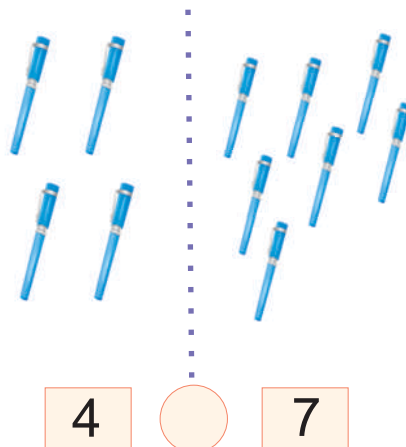
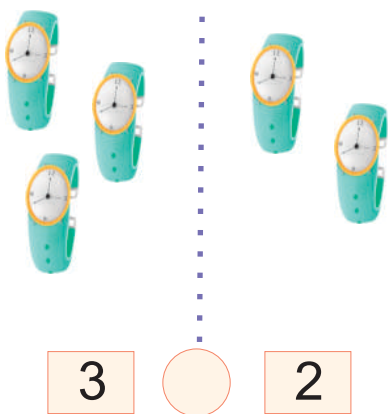


EXERCISE

Count and write the numbers:

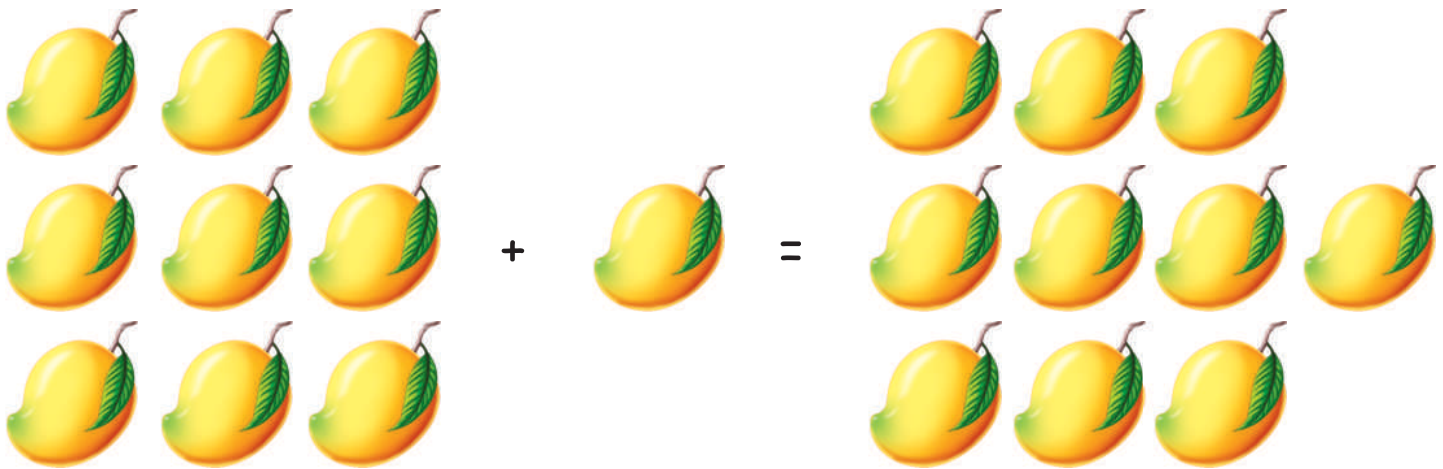


Count and write >, < or = :





Ones and Tens



9 or 9 ones + 1 or 1 one = 10 or 1 ten or 10 ones

Thus, 9 and 1 more makes 10.

We can say it that 10 ones or 1 ten.

Thus, the number 10 has **two digits**.

1 is called the **ten's digit**.

Observe and understand :

11 (eleven) 1 ten, 1 one

22 (twenty two)
ones 2 tens, 2

33 (thirty three)
ones 3 tens, 3

44 (forty four)
ones 4 tens, 4

55 (fifty five)
ones 5 tens, 5

66 (sixty six) 6 tens, 6





Sort Out Tens and Ones

Fill up as mentioned :

	Numbers	Tens	Ones
11	Eleven	1	1
18	Eighteen	<input type="text"/>	<input type="text"/>
21	Twenty one	<input type="text"/>	<input type="text"/>
36	Thirty six	<input type="text"/>	<input type="text"/>
55	Fifty five	<input type="text"/>	<input type="text"/>
29	Twenty nine	<input type="text"/>	<input type="text"/>
42	Forty two	<input type="text"/>	<input type="text"/>
78	Seventy eight	<input type="text"/>	<input type="text"/>
40	Forty	<input type="text"/>	<input type="text"/>
83	Eighty three	<input type="text"/>	<input type="text"/>
35	Thirty five	<input type="text"/>	<input type="text"/>
77	Seventy seven	<input type="text"/>	<input type="text"/>
44	Forty four	<input type="text"/>	<input type="text"/>



Ascending And Descending Order

Look at the picture :

<input type="text" value="15"/>	Ascending Order ↑			Descending Order ↓	<input type="text" value="15"/>
<input type="text" value="14"/>					<input type="text" value="15"/>
<input type="text" value="13"/>					<input type="text" value="14"/>
<input type="text" value="12"/>					<input type="text" value="13"/>
<input type="text" value="11"/>					<input type="text" value="12"/>
					<input type="text" value="11"/>

We see that the number increases as we go up the stairs. So, we may say that the numbers are in **Ascending Order**.

We see that the number decreases as we go down the stairs. So, we may say that the numbers are in **Descending Order**.

Fill in the numbers in ascending order :

25							32				
----	--	--	--	--	--	--	----	--	--	--	--

71					76						
----	--	--	--	--	----	--	--	--	--	--	--

Fill in the numbers in descending order :

80							73				
----	--	--	--	--	--	--	----	--	--	--	--

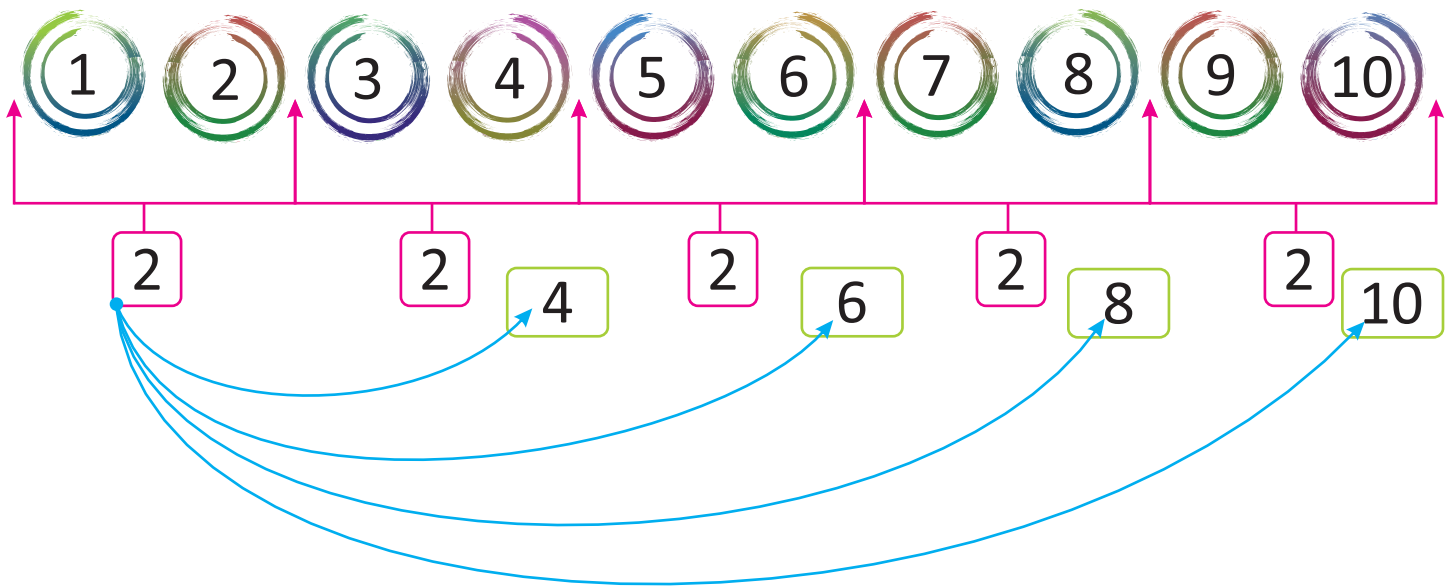
55								47			
----	--	--	--	--	--	--	--	----	--	--	--



Skip Counting

Skip counting means to count a number that is not 1. It helps to count many things quickly.

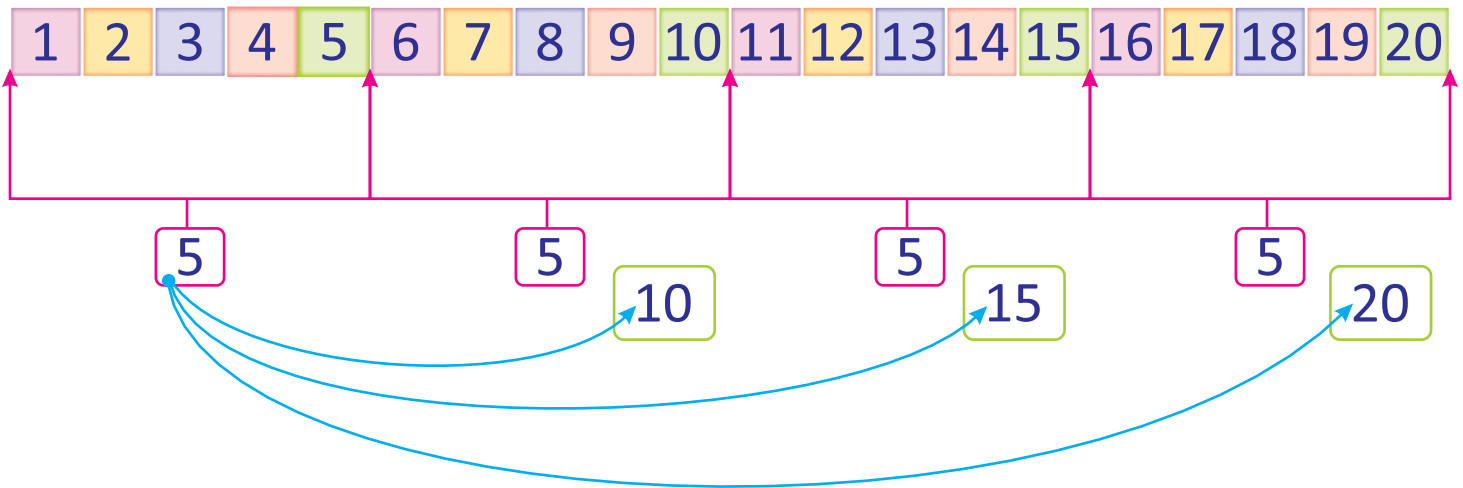
Let's skip counting by 2.



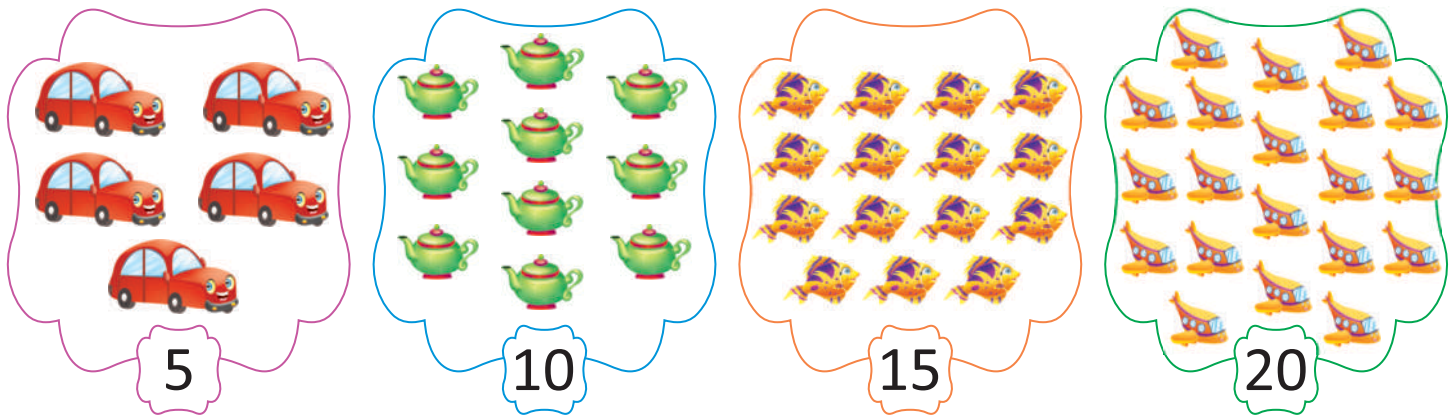
Count the fingers and read the numbers.



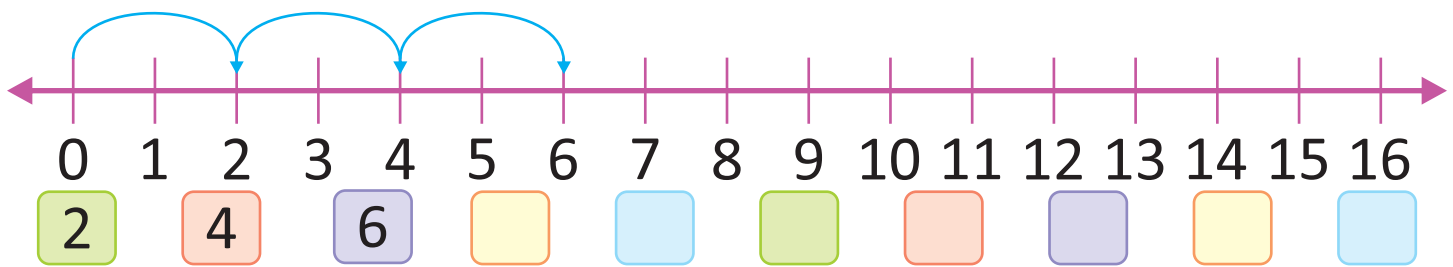
Let's skip counting by 5.



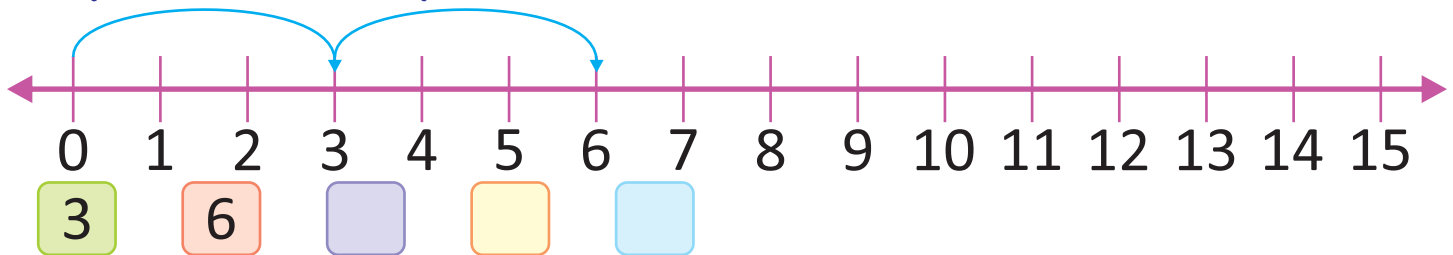
Count the objects and read the numbers.



Skip and count by 2.



Skip and count by 3.





Addition of Numbers

1

1 bird is sitting on the tree.
2 birds are coming to sit on the same tree.

How many birds will be sitting on a tree?

1 and 2 more is equal to 3.

That is : + =



2

6 cupcakes are in the tray.
If 1 more cupcake is about to put in the tray.

How many cupcakes will be there in all?

6 and 1 more is equal to 7.

That is : + =



3

2 boys are playing in the garden.
1 boy is coming to play with them.

How many boys will be there?

2 and 1 more is equal to 3.

That is : + =



4

3 cookies are in jar.
2 cookies are outside.

How many cookies will be there in all?

3 and 2 more is equal to 5.

That is : + =



5

10 fish are in the big aquarium.
1 fish is in jar.

How many fish are there in all?

10 and 1 more is equal to 11.

That is : + =



6

Swati has 1 pen.
Rajan gave her 1 more pen.

How many pens will be there in all?

1 and 1 more is equal to 2.

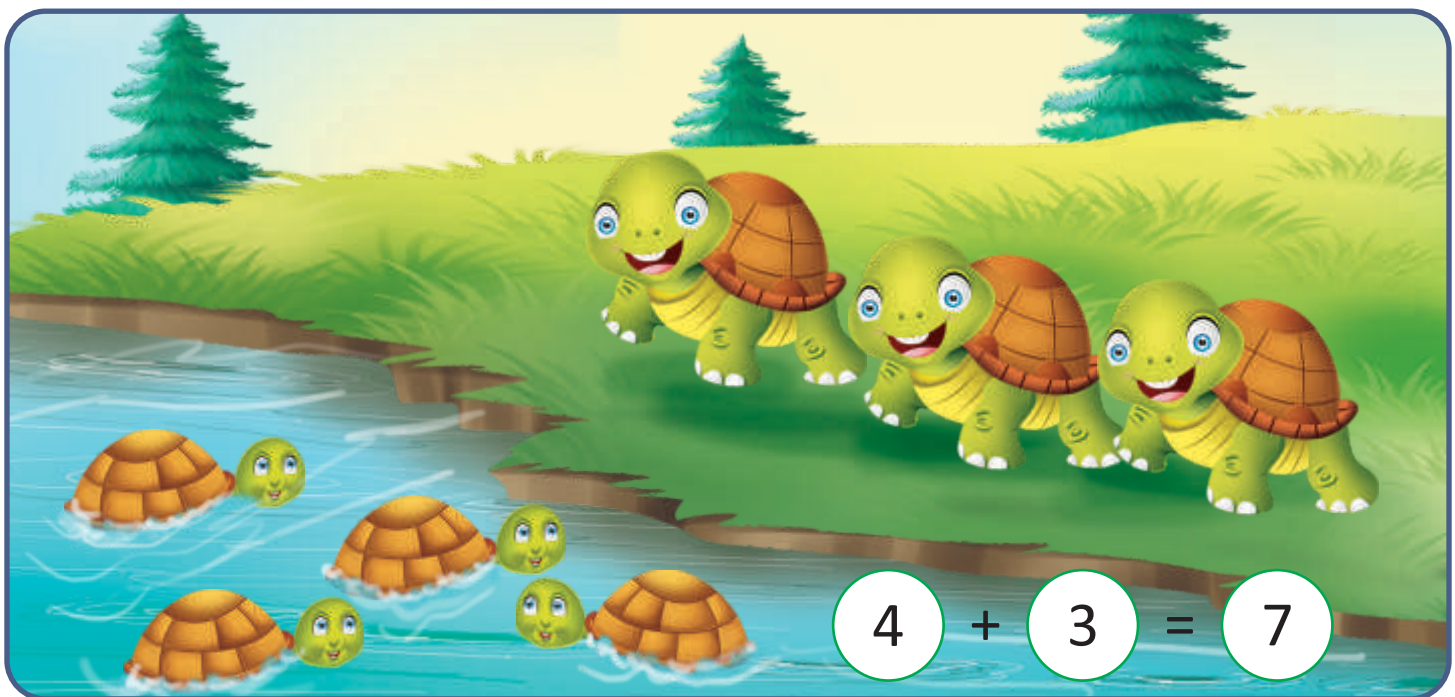
That is : + =



Riya has two dolls and her friend Tina has three dolls. How many dolls does they have in all to play?



Four turtles are playing in the pond. Three more turtles join them. How many turtles are there in all?



Ritu has 5 sticks. Her friend gave her 2 sticks more. How many sticks does Ritu have in all?



There are 2 monkeys on a tree 2 more monkeys join-them. How many monkeys are there in altogether?



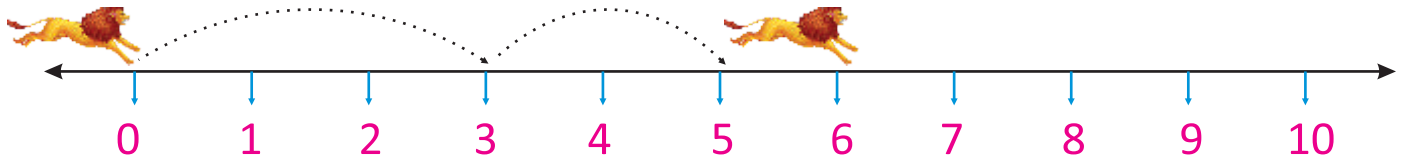
Mary has 3 cats and 3 dogs. How many pets does she have in all?



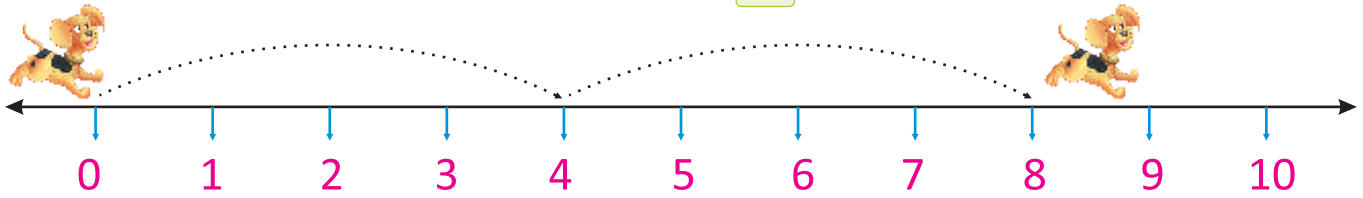


Addition on Number Line

Look and understand :

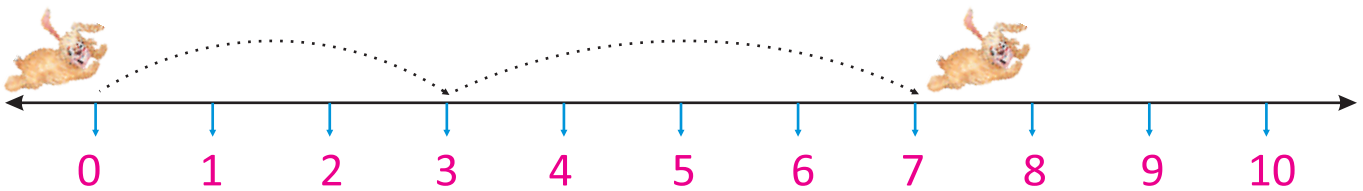


$$3 + 2 = 5$$

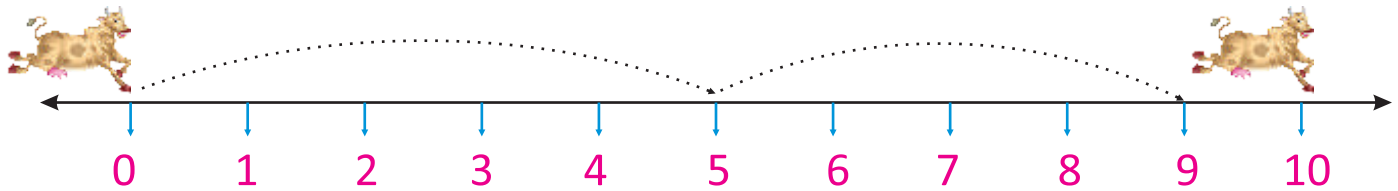


$$4 + 4 = 8$$

Fill in the blanks :



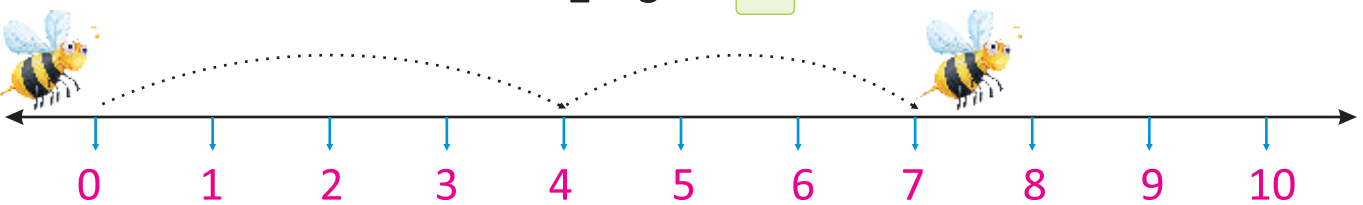
$$3 + 4 = \square$$



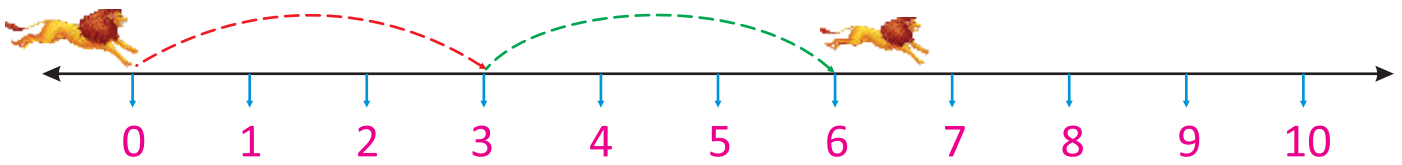
$$5 + 4 = \square$$



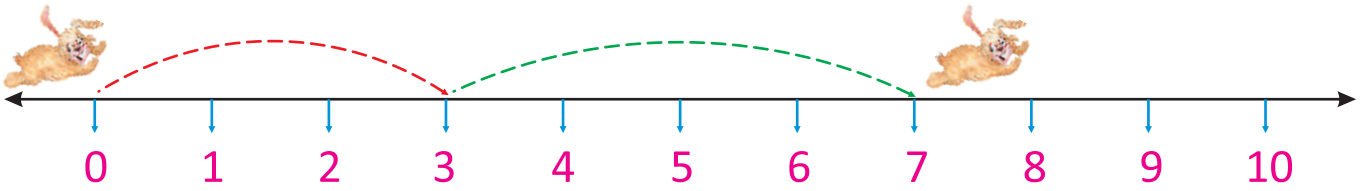
$$2 + 3 = \square$$



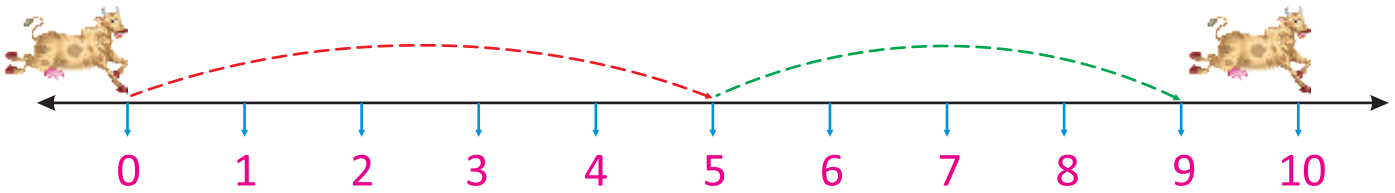
$$4 + 3 = \square$$



$$3 + 3 = \square$$



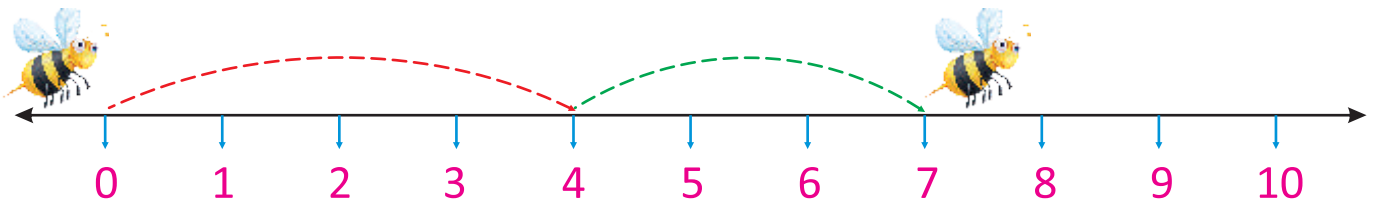
$$3 + 4 = \square$$



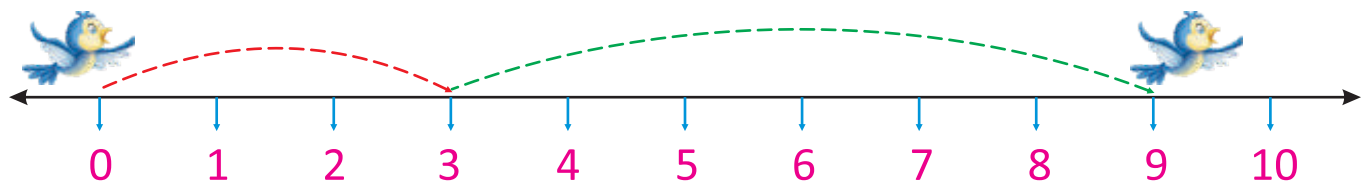
$$5 + 4 = \square$$



$$2 + 3 = \square$$



$$4 + 3 = \square$$



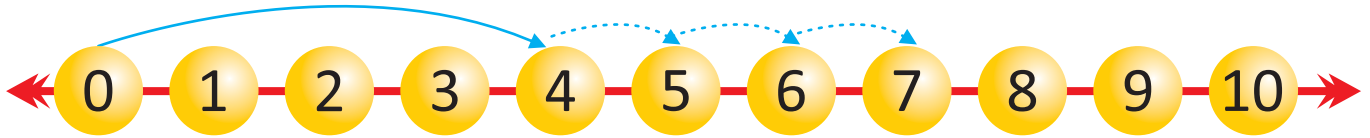
$$3 + 6 = \square$$



EXERCISE

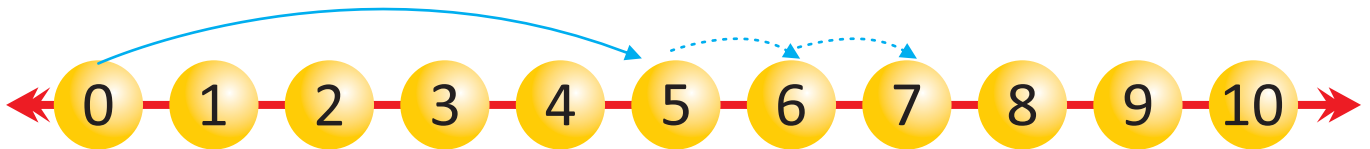
Addition using Number Line :

a.



$$4 + 3 = 7$$

b.



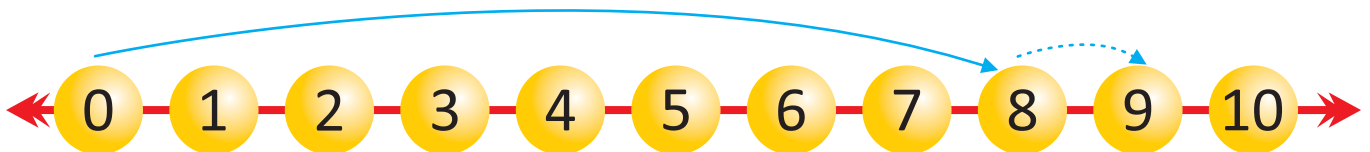
$$5 + 2 = \square$$

c.



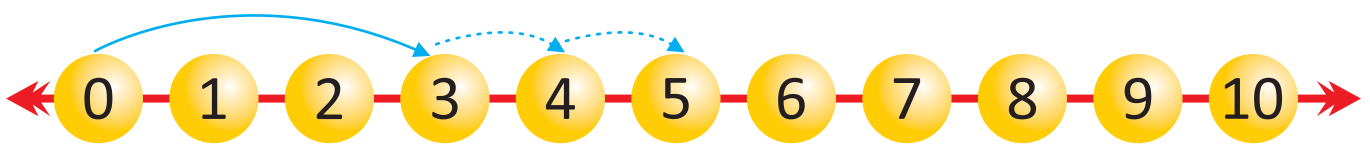
$$7 + 3 = \square$$

d.



$$8 + 1 = \square$$

e.



$$3 + 2 = \square$$



Addition by Column

Add 4 and 3

4
+ 3
□

→

4 IIII
+ 3
□

→

4 IIII
+ 3 III
□

→

4
+ 3
7

Draw lines according to the given numbers and find the sum.

a

2
+ 4
□

b

6
+ 3
□

c

5
+ 6
□

d

7
+ 1
□

e

4
+ 2
□

f

8
+ 5
□

g

6
+ 1
□

h

2
+ 2
□

i

1
+ 9
□

j

3
+ 2
□

k

5
+ 2
□

l

8
+ 4
□

Draw lines according to the given numbers and find the sum.

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

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

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

$$\begin{array}{r} 4 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ + 1 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ + 1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ + 1 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 4 \\ \hline \end{array}$$



Addition (Two-digit numbers)

Add :25 and 43.

It is written as under :

	Tens	Ones
	2	5
+	4	3
	6	8

First add ones

$$\textcircled{5} + \textcircled{3} = \textcircled{8}$$



Then add tens

$$\textcircled{2} + \textcircled{4} = \textcircled{6}$$



So, $\textcircled{25} + \textcircled{43} = \textcircled{68}$



Add the following two-digits numbers :

	Tens	Ones
	2	5
+	2	2

	Tens	Ones
	1	2
+	2	6

	Tens	Ones
	5	8
+	3	0

	Tens	Ones
	2	6
+	7	1

	Tens	Ones
	3	3
+	3	6

	Tens	Ones
	1	4
+	3	5

	Tens	Ones
	4	7
+	4	1

	Tens	Ones
	3	6
+	3	3

Add the following two digits numbers :

	Tens	Ones
	2	4
+	6	3

	Tens	Ones
	4	3
+	5	6

	Tens	Ones
	3	6
+	3	3

	Tens	Ones
	5	6
+	2	2

	Tens	Ones
	6	1
+	2	3

	Tens	Ones
	5	2
+	3	4

	Tens	Ones
	5	7
+	4	2

	Tens	Ones
	1	4
+	7	5

	Tens	Ones
	5	4
+	1	4

	Tens	Ones
	3	2
+	5	7

	Tens	Ones
	2	8
+	6	1

	Tens	Ones
	2	1
+	6	7

	Tens	Ones
	4	5
+	2	4

	Tens	Ones
	1	2
+	1	3

	Tens	Ones
	3	4
+	2	4

	Tens	Ones
	8	1
+	1	8

	Tens	Ones
	6	2
+	2	3

	Tens	Ones
	5	1
+	1	5

	Tens	Ones
	4	6
+	5	0

	Tens	Ones
	7	0
+	2	2



Subtraction of Numbers

- 1 There are 6 birds in all.
4 birds are sitting on the tree.
2 birds are not.

So, how many birds are sitting?

$$6 - 2 = 4.$$

6 minus 2 is equal to 4.

That is : - =



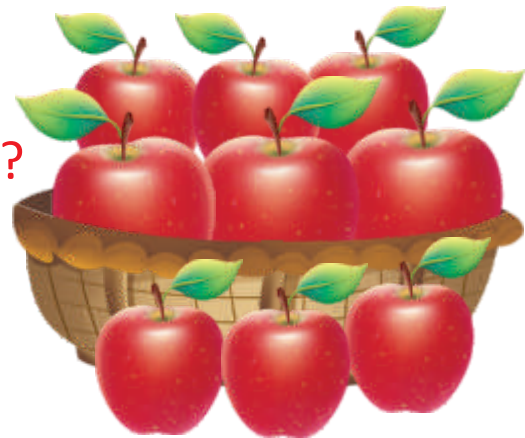
- 2 There are 9 apples.
6 apples are in the basket.

So, how many apples are outside?

$$9 - 6 = 3.$$

9 minus 6 is equal to 3.

That is : - =



- 3 There are 3 boys in all.
2 boys are playing in the garden.
1 boy is not.

How many boys are playing?

$$3 - 1 = 2.$$

3 minus 1 is equal to 2.

That is : - =



4

There are 6 cookies in all.
2 cookies are outside.

So, how many cookies are there
in jar.

$$6 - 2 = 4.$$

6 minus 2 is equal to ____.

That is : - =



5

There are 6 fish in all.
3 fish are in aquarium.

So, how many fish are in jar?

$$6 - 3 = 3$$

6 minus 3 is equal to ____.

That is : - =



6

There all 2 pens in all.
Swati has 1 pen.

So, how many pens Rajan have?

$$2 - 1 = 1.$$

2 minus 1 is equal to ____.

That is : - =



Subtract the following numbers.

One is done for you.

$$\begin{array}{r} 3 \\ - 2 \\ \hline 1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ - 3 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 4 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 5 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ - 1 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 4 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 4 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 5 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 2 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 3 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 3 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 4 \\ \hline \\ \hline \end{array}$$

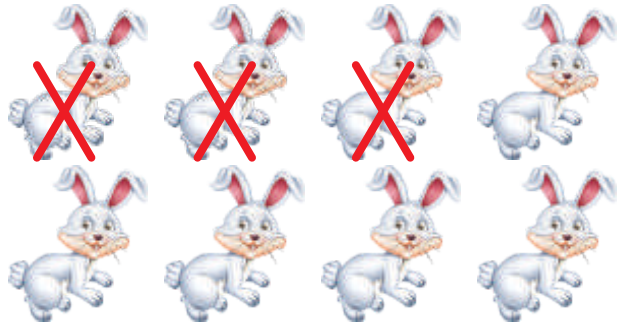
$$\begin{array}{r} 7 \\ - 3 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ - 4 \\ \hline \\ \hline \end{array}$$


$$\begin{array}{r} 7 \\ - 2 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 3 \\ \hline \\ \hline \end{array}$$

Count, Cross and Write.



8 - 3 = 5



6 - 2 =




7 - 1 =




5 - 4 =



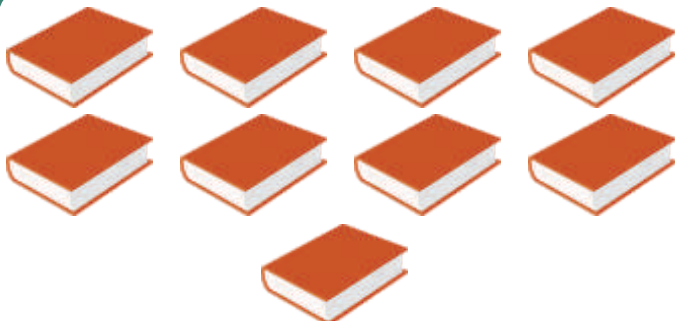
3 - 1 =



10 - 8 =



8 - 6 =

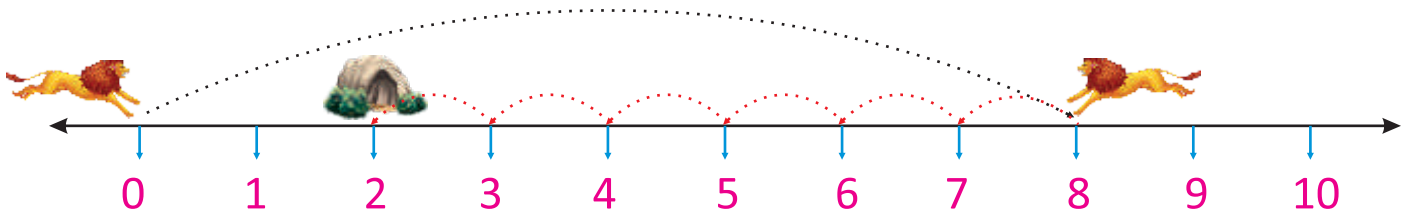


9 - 5 =



Subtraction on Number Line

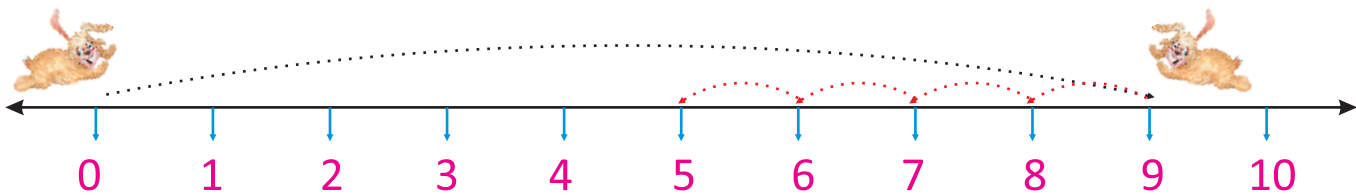
A lion stand on '0'. It goes to number '8' now he want go its den. Its den on number '2'.



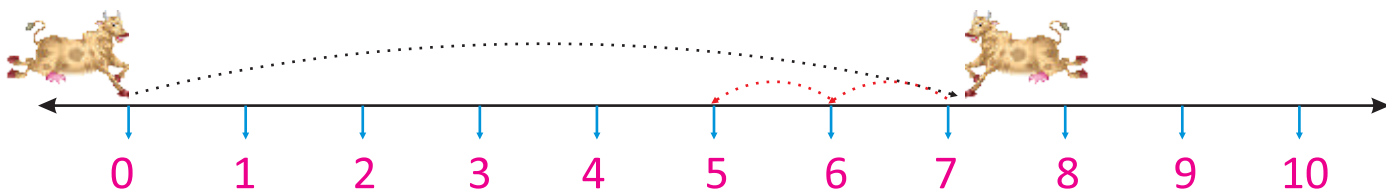
$$8 - 6 = 2$$

When you subtract, you always jump backwards on the number line. You go from right to left (←) on the line.

Fill in the blanks.



$$9 - 4 = \square$$

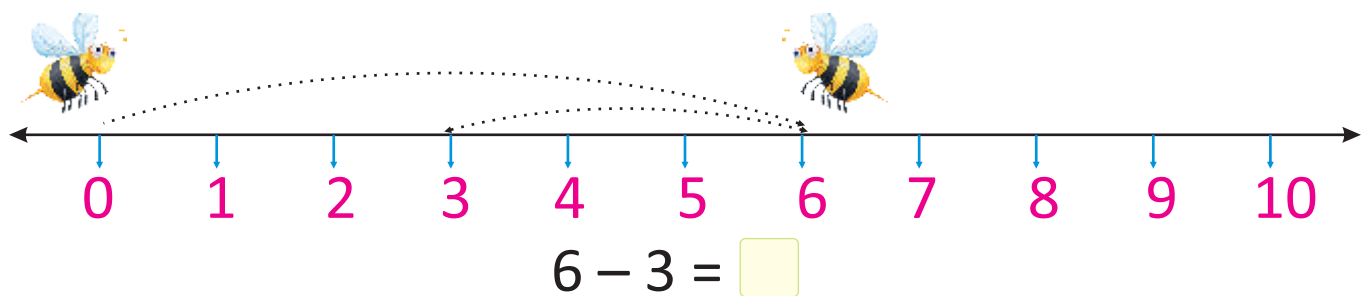
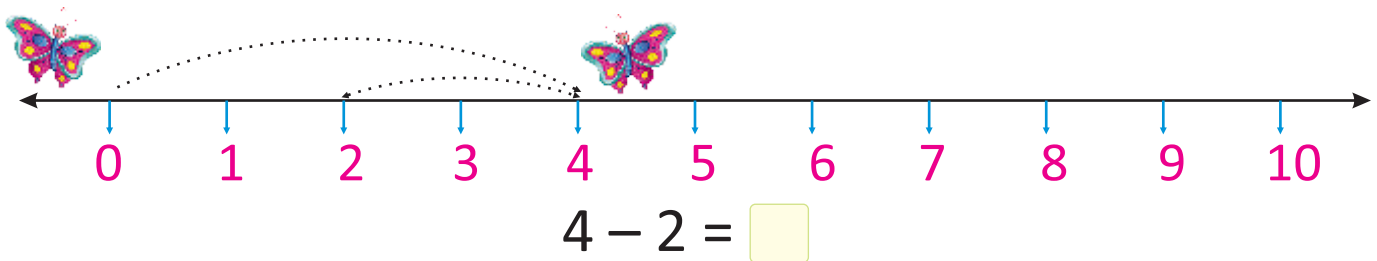
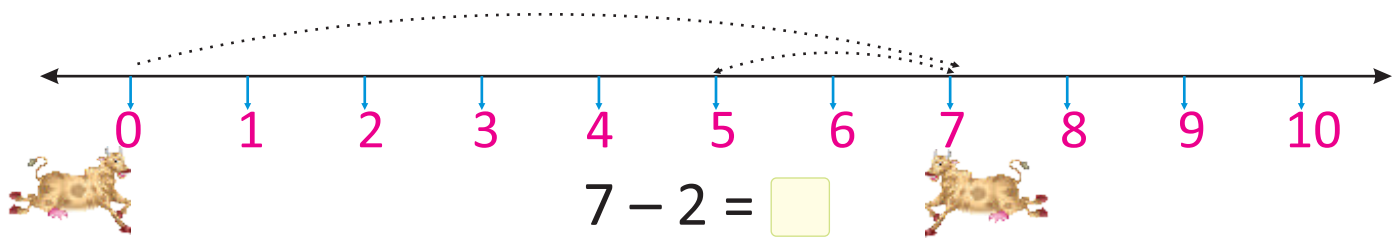
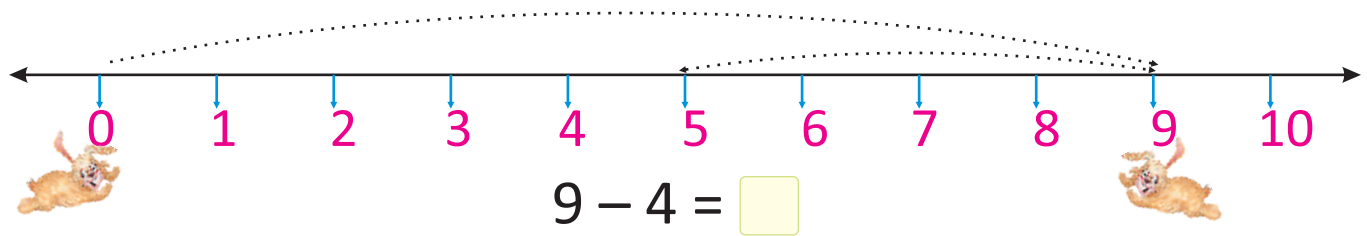
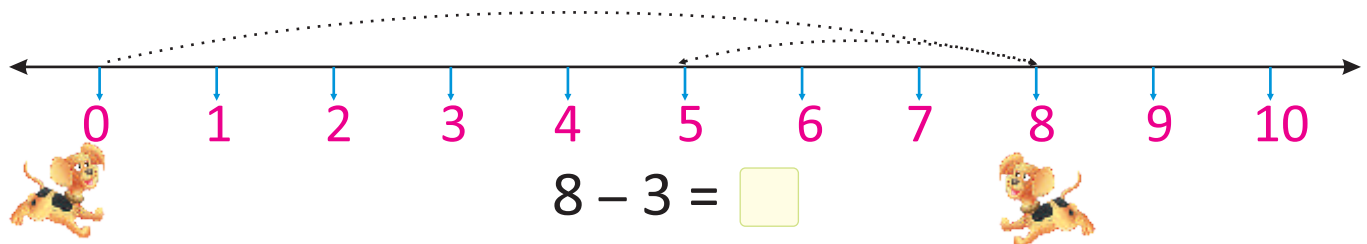
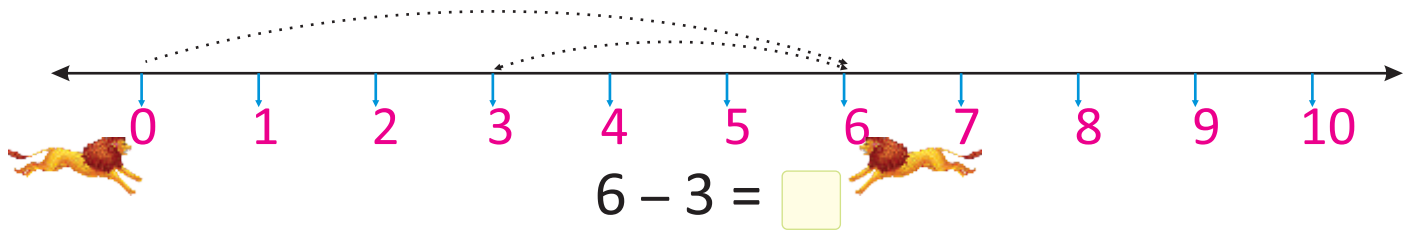


$$7 - 2 = \square$$



$$4 - 2 = \square$$

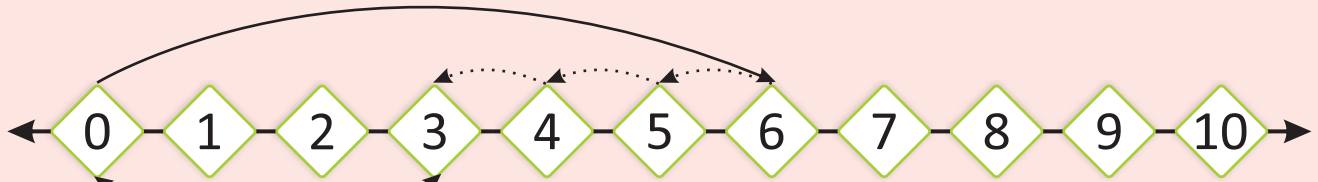
Fill in the blanks :





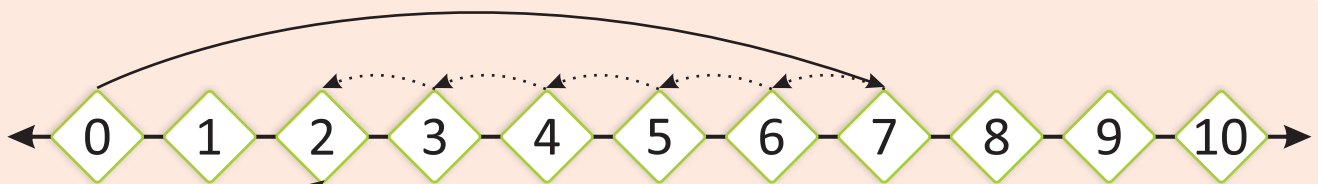
Subtraction using Number Line

a.



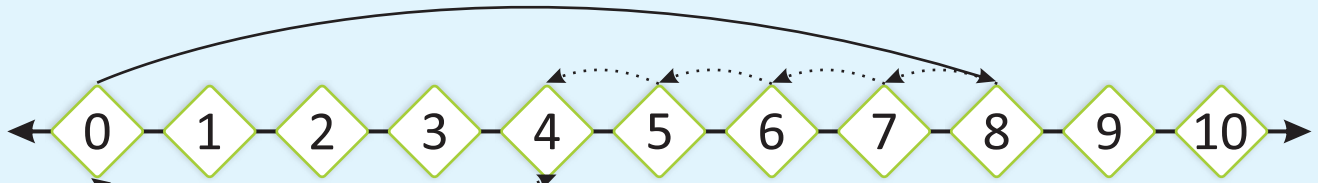
$$6 - 3 = \square$$

b.



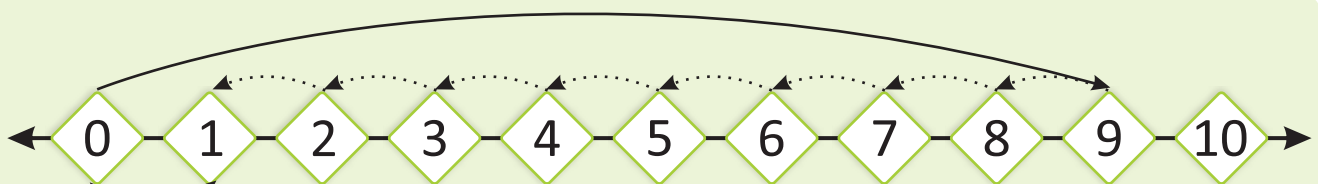
$$7 - 5 = \square$$

c.



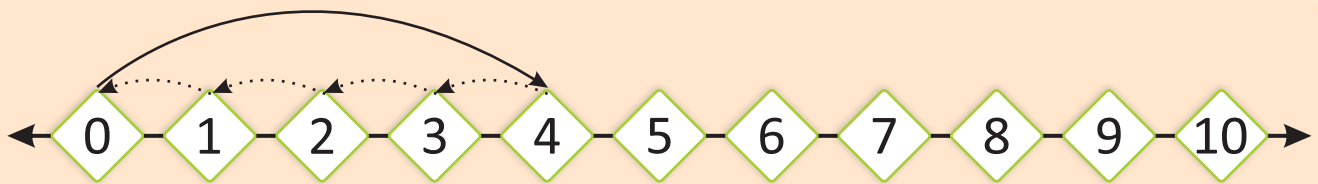
$$8 - 4 = \square$$

d.



$$9 - 8 = \square$$

e.



$$4 - 4 = \square$$



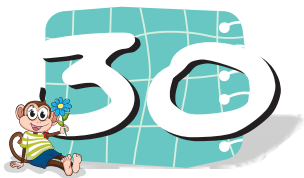
Subtraction Column

Consider the problem $5 - 3 = ?$

$\begin{array}{r} 5 \\ - 3 \\ \hline \end{array}$	\rightarrow	$\begin{array}{r} 5 \text{ } \\ - 3 \\ \hline \end{array}$	\rightarrow	$\begin{array}{r} 5 \text{ /} \\ - 3 \\ \hline \end{array}$	\rightarrow	$\begin{array}{r} 5 \\ - 3 \\ \hline 2 \end{array}$
---	---------------	--	---------------	--	---------------	---

Draw lines according to the given numbers and find the difference.

a $\begin{array}{r} 6 \\ - 2 \\ \hline \end{array}$	b $\begin{array}{r} 5 \\ - 1 \\ \hline \end{array}$	c $\begin{array}{r} 8 \\ - 6 \\ \hline \end{array}$	d $\begin{array}{r} 9 \\ - 8 \\ \hline \end{array}$
e $\begin{array}{r} 3 \\ - 2 \\ \hline \end{array}$	f $\begin{array}{r} 10 \\ - 2 \\ \hline \end{array}$	g $\begin{array}{r} 4 \\ - 3 \\ \hline \end{array}$	h $\begin{array}{r} 7 \\ - 2 \\ \hline \end{array}$
i $\begin{array}{r} 2 \\ - 2 \\ \hline \end{array}$	j $\begin{array}{r} 9 \\ - 4 \\ \hline \end{array}$	k $\begin{array}{r} 7 \\ - 6 \\ \hline \end{array}$	l $\begin{array}{r} 6 \\ - 4 \\ \hline \end{array}$



Subtraction of Two - Digit Number

Subtract : 33 from 57.

It is written as under :

	Tens	Ones
	5	7
-	3	3
	2	4

First subtract Ones

$$\textcircled{7} - \textcircled{3} = \textcircled{4}$$



$$\textcircled{5} - \textcircled{3} = \textcircled{2}$$



So, $\textcircled{57} - \textcircled{33} = \textcircled{24}$



Subtract the following two-digits numbers :

	Tens	Ones
	3	6
-	1	1

	Tens	Ones
	4	8
-	2	4

	Tens	Ones
	6	7
-	3	5

	Tens	Ones
	5	7
-	1	1

	Tens	Ones
	5	8
-	3	2

	Tens	Ones
	6	8
-	4	1

	Tens	Ones
	7	0
-	2	0

	Tens	Ones
	4	3
-	2	2

Subtract the following two-digits numbers :

Tens	Ones
6	4
- 1	2

Tens	Ones
3	3
- 1	3

Tens	Ones
3	8
- 1	7

Tens	Ones
5	6
- 2	2

Tens	Ones
4	4
- 2	3

Tens	Ones
6	3
- 3	0

Tens	Ones
6	5
- 2	1

Tens	Ones
3	4
- 2	3

Tens	Ones
7	6
- 4	4

Tens	Ones
8	5
- 5	4

Tens	Ones
6	5
- 2	4

Tens	Ones
4	4
- 2	3

Tens	Ones
5	9
- 1	6

Tens	Ones
7	6
- 2	5

Tens	Ones
8	9
- 6	6

Tens	Ones
2	6
- 1	1

Tens	Ones
9	3
- 1	1

Tens	Ones
8	3
- 2	3

Tens	Ones
7	6
- 4	4

Tens	Ones
7	5
- 2	2

Subtract the following two-digits numbers :

Tens	Ones
9	7
5	5

Tens	Ones
5	9
2	8

Tens	Ones
8	8
5	0

Tens	Ones
8	4
6	1

Tens	Ones
8	9
6	2

Tens	Ones
9	0
4	0

Tens	Ones
8	6
5	1

Tens	Ones
9	6
2	4

Tens	Ones
9	7
6	5

Tens	Ones
7	1
2	0

Tens	Ones
8	4
5	1

Tens	Ones
5	6
1	2

Tens	Ones
9	2
5	0

Tens	Ones
9	6
4	5

Tens	Ones
8	8
4	5

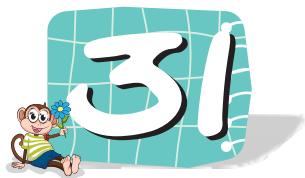
Tens	Ones
6	4
2	3

Tens	Ones
9	7
7	6

Tens	Ones
9	7
3	2

Tens	Ones
9	5
2	5

Tens	Ones
8	8
4	5



Multiplication of Numbers

Look and understand :



Number of groups of balloons = 3

The number of balloons in each group = 2

The total number of balloons are $2 + 2 + 2 = 6$

Thus, 2 taken 3 times make 6.

We can write this as, $2 \times 3 = 6$

We say that 2 multiplied by 3 gives 6.

$2 \times 3 = 6$ is a Multiplication Fact.

'x' is the sign of multiplication.

Now, look at this picture:

The number of flowers of the plant = 4

The number of petals on each flower = 6

The total number of petals are

$$6 + 6 + 6 + 6 = 24$$

Thus, 6 taken 4 times make 24.

We write this as, $6 \times 4 = 24$

We say that 6 multiplied by 4 gives 24.

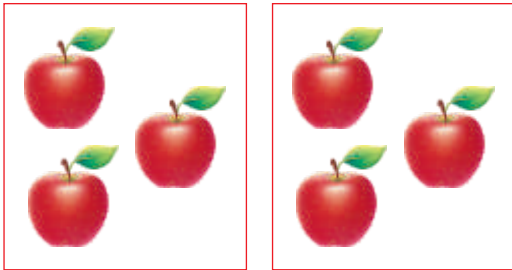
$6 \times 4 = 24$ is a Multiplication Fact.

So, we can say that multiplication is a process of repeated addition.



EXERCISE

Fill in the blanks with appropriate number:



Number of groups of apples =
 Number of apples in each group =
 Total number of apples =
 Multiplication Fact =

Number of groups of flowers =
 Number of flowers in a group =
 Total number of flowers =
 Multiplication Fact =



Show the following in the form of a repeated addition and multiplication:



$$2 \times 3 = 6$$

$$2 + 2 + 2 = 6$$



Now, look at the pictures below and fill in the boxes :



3 groups of 3 = flowers

$$3 + 3 + 3 = \square \text{ or } 3 \times 3 = \square$$

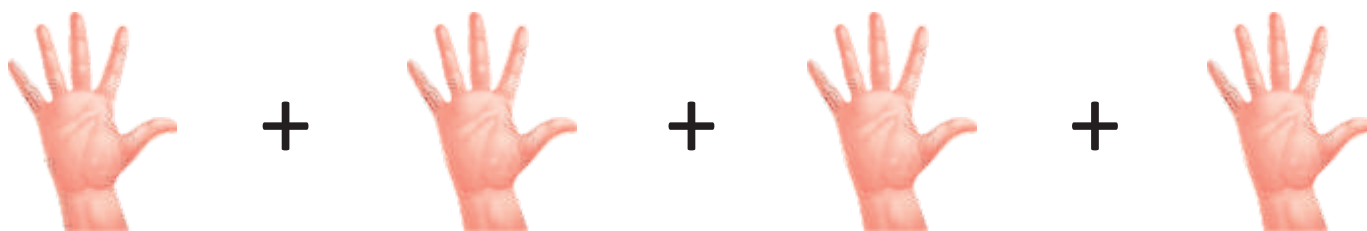
3 three's are 9 or 3 times 3 is equal to 9.



3 groups of 4 glasses =

$$4 + 4 + 4 = \square \text{ or } 3 \times 4 = \square$$

4 three's are or 3 times 4 is equal to



4 groups of 5 fingers =

$$5 + 5 + 5 + 5 = \square \text{ or } 4 \times 5 = \square$$

5 four's are or 4 times 5 is equal to



Tables

Two Times Table (x2)

We write it as	We read it as	Fill in the boxes
$2 \times 1 = 2$	Two ones are two.	$2 \times 1 = \square$
$2 \times 2 = 4$	Two twos are four.	$2 \times 2 = \square$
$2 \times 3 = 6$	Two threes are six.	$2 \times 3 = \square$
$2 \times 4 = 8$	Two fours are eight.	$2 \times 4 = \square$
$2 \times 5 = 10$	Two fives are ten.	$2 \times 5 = \square$
$2 \times 6 = 12$	Two sixes are twelve.	$2 \times 6 = \square$
$2 \times 7 = 14$	Two sevens are fourteen.	$2 \times 7 = \square$
$2 \times 8 = 16$	Two eights are sixteen.	$2 \times 8 = \square$
$2 \times 9 = 18$	Two nines are eighteen.	$2 \times 9 = \square$
$2 \times 10 = 20$	Two tens are twenty.	$2 \times 10 = \square$

Three Times Table (x3)

We write it as	We read it as	Fill in the boxes
$3 \times 1 = 3$	Three ones are three.	$3 \times 1 = \square$
$3 \times 2 = 6$	Three twos are six.	$3 \times 2 = \square$
$3 \times 3 = 9$	Three threes are nine.	$3 \times 3 = \square$
$3 \times 4 = 12$	Three fours are twelve.	$3 \times 4 = \square$
$3 \times 5 = 15$	Three fives are fifteen.	$3 \times 5 = \square$
$3 \times 6 = 18$	Three sixes are eighteen.	$3 \times 6 = \square$
$3 \times 7 = 21$	Three sevens are twentyone.	$3 \times 7 = \square$
$3 \times 8 = 24$	Three eights are twentyfour.	$3 \times 8 = \square$
$3 \times 9 = 27$	Three nines are twentyseven.	$3 \times 9 = \square$
$3 \times 10 = 30$	Three tens are thirty.	$3 \times 10 = \square$

Four Times Table (x4)

We write it as	We read it as	Fill in the boxes
$4 \times 1 = 4$	Four ones are four.	$4 \times 1 = \square$
$4 \times 2 = 8$	Four twos are eight.	$4 \times 2 = \square$
$4 \times 3 = 12$	Four threes are twelve.	$4 \times 3 = \square$
$4 \times 4 = 16$	Four fours are sixteen.	$4 \times 4 = \square$
$4 \times 5 = 20$	Four fives are twenty.	$4 \times 5 = \square$
$4 \times 6 = 24$	Four sixes are twenty four.	$4 \times 6 = \square$
$4 \times 7 = 28$	Four sevens are twenty eight.	$4 \times 7 = \square$
$4 \times 8 = 32$	Four eights are thirty two.	$4 \times 8 = \square$
$4 \times 9 = 36$	Four nines are thirty six.	$4 \times 9 = \square$
$4 \times 10 = 40$	Four tens are forty.	$4 \times 10 = \square$

Five Times Table (x5)

We write it as	We read it as	Fill in the boxes
$5 \times 1 = 5$	Five ones are five.	$5 \times 1 = \square$
$5 \times 2 = 10$	Five twos are ten.	$5 \times 2 = \square$
$5 \times 3 = 15$	Five threes are fifteen.	$5 \times 3 = \square$
$5 \times 4 = 20$	Five fours are twenty.	$5 \times 4 = \square$
$5 \times 5 = 25$	Five fives are twenty five.	$5 \times 5 = \square$
$5 \times 6 = 30$	Five sixes are thirty.	$5 \times 6 = \square$
$5 \times 7 = 35$	Five sevens are thirty five.	$5 \times 7 = \square$
$5 \times 8 = 40$	Five eights are forty.	$5 \times 8 = \square$
$5 \times 9 = 45$	Five nines are forty five.	$5 \times 9 = \square$
$5 \times 10 = 50$	Five tens are fifty.	$5 \times 10 = \square$

Table of 6

6	x	1	=	6
6	x	2	=	12
6	x	3	=	18
6	x	4	=	24
6	x	5	=	30
6	x	6	=	36
6	x	7	=	42
6	x	8	=	48
6	x	9	=	54
6	x	10	=	60

Table of 7

7	x	1	=	7
7	x	2	=	14
7	x	3	=	21
7	x	4	=	28
7	x	5	=	35
7	x	6	=	42
7	x	7	=	49
7	x	8	=	56
7	x	9	=	63
7	x	10	=	70

Table of 8

8	x	1	=	8
8	x	2	=	16
8	x	3	=	24
8	x	4	=	32
8	x	5	=	40
8	x	6	=	48
8	x	7	=	56
8	x	8	=	64
8	x	9	=	72
8	x	10	=	80

Table of 9

9	x	1	=	9
9	x	2	=	18
9	x	3	=	27
9	x	4	=	36
9	x	5	=	45
9	x	6	=	54
9	x	7	=	63
9	x	8	=	72
9	x	9	=	81
9	x	10	=	90

Table of 10

10	x	1	=	10
10	x	2	=	20
10	x	3	=	30
10	x	4	=	40
10	x	5	=	50
10	x	6	=	60
10	x	7	=	70
10	x	8	=	80
10	x	9	=	90
10	x	10	=	100





Multiplication (By Using Tables)

Multiply: 4×5

Solution: To multiply 4 by 5, we read the table 5 times 4.

5 ones = 5 5 twos = 10 5 threes = 15 5 fours = 20

So, we will write $4 \times 5 = 20$

Using the multiplication tables and write the answer :

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

$$\begin{array}{r} 10 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$$

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

$$\begin{array}{r} 8 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$$



EXERCISE

$$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$$

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

$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

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

$$\begin{array}{r} 6 \\ \times 1 \\ \hline \end{array}$$



Division

Division means showing or making equal groups.

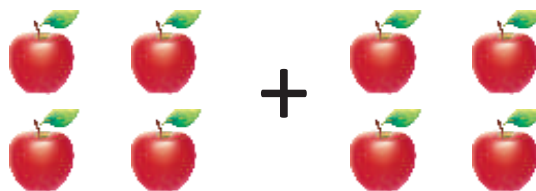
Division sign '÷' read as divided by.

Equal Grouping

Division is dividing or sharing of something equally.

Example

8 apples =



8 apples can be divided into 2 groups of 4 apples each. It mean $8 \div 4 = 2$

Here

$$8 \div 4 = 2$$

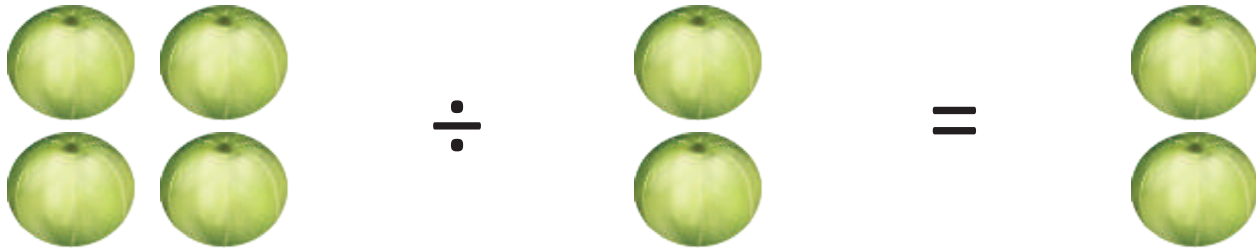
Dividend Divisor Quotient

Division by repeated subtraction.

1	$10 - 2 - 2 - 2 - 2 - 2 = 0$	$10 \div 2 = 5$	Dividend is	10
2	$20 - 5 - 5 - 5 - 5 = 0$		Quotient is	
3	$15 - 5 - 5 - 5 = 0$		Divisor is	
4	$18 - 6 - 6 - 6 = 0$		Dividend is	
5	$16 - 4 - 4 - 4 - 4 = 0$		Divisor is	
6	$36 - 9 - 9 - 9 - 9 = 0$		Quotient is	

We divide 4 by 2

$$4 \div 2 = 2$$



$$\begin{array}{r} 3 \\ 2 \overline{) 6} \\ \underline{-6} \\ 0 \end{array}$$

Ans = 3

$$\begin{array}{r} 6 \\ 3 \overline{) 18} \\ \underline{-18} \\ 0 \end{array}$$

Ans = 6

$$\begin{array}{r} 5 \\ 4 \overline{) 20} \\ \underline{-20} \\ 0 \end{array}$$

Ans = 5

$$2 \overline{) 4}$$

$$4 \overline{) 16}$$

$$5 \overline{) 10}$$

$$7 \overline{) 35}$$

$$4 \overline{) 20}$$

$$7 \overline{) 28}$$

$$7 \overline{) 42}$$

$$3 \overline{) 27}$$

$$5 \overline{) 15}$$

$$4 \overline{) 32}$$

$$6 \overline{) 48}$$

$$10 \overline{) 80}$$

Divide the following numbers.

$$2 \overline{) 8}$$

$$5 \overline{) 35}$$

$$2 \overline{) 20}$$

$$7 \overline{) 56}$$

$$4 \overline{) 20}$$

$$9 \overline{) 18}$$

$$10 \overline{) 90}$$

$$3 \overline{) 21}$$

$$8 \overline{) 64}$$

$$5 \overline{) 50}$$

$$10 \overline{) 100}$$

$$2 \overline{) 6}$$

$$8 \overline{) 72}$$

$$4 \overline{) 8}$$

$$4 \overline{) 32}$$

$$7 \overline{) 49}$$

$$3 \overline{) 15}$$

$$9 \overline{) 81}$$

$$9 \overline{) 63}$$

$$7 \overline{) 21}$$

$$2 \overline{) 12}$$

$$6 \overline{) 36}$$

$$6 \overline{) 54}$$

$$3 \overline{) 27}$$

Divide the following numbers.

$$4 \overline{) 16}$$

$$8 \overline{) 80}$$

$$9 \overline{) 36}$$

$$7 \overline{) 28}$$

$$3 \overline{) 9}$$

$$10 \overline{) 50}$$

$$2 \overline{) 16}$$

$$3 \overline{) 24}$$

$$8 \overline{) 80}$$

$$9 \overline{) 18}$$

$$7 \overline{) 35}$$

$$3 \overline{) 12}$$

$$8 \overline{) 16}$$

$$4 \overline{) 24}$$

$$4 \overline{) 40}$$

$$8 \overline{) 24}$$

$$8 \overline{) 48}$$

$$9 \overline{) 27}$$

$$4 \overline{) 28}$$

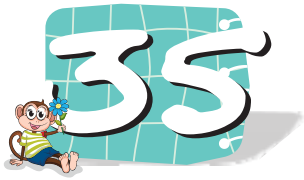
$$6 \overline{) 42}$$

$$2 \overline{) 18}$$

$$6 \overline{) 42}$$

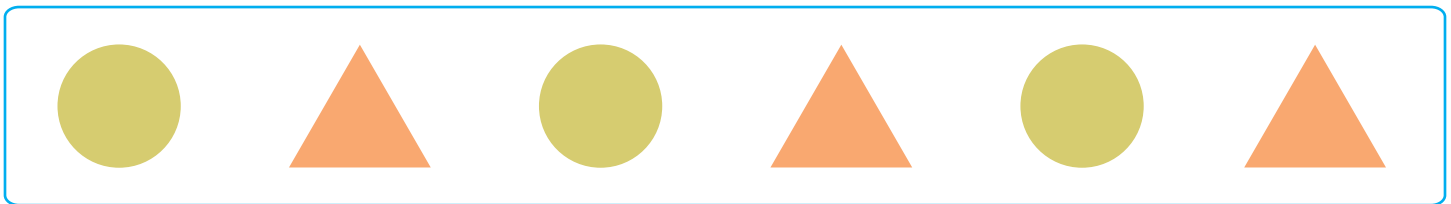
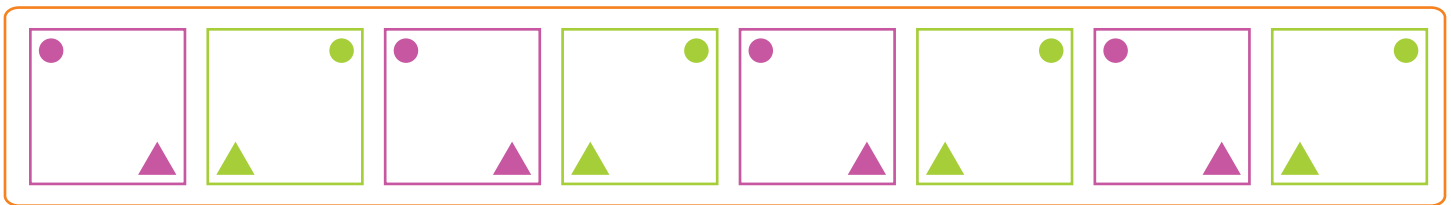
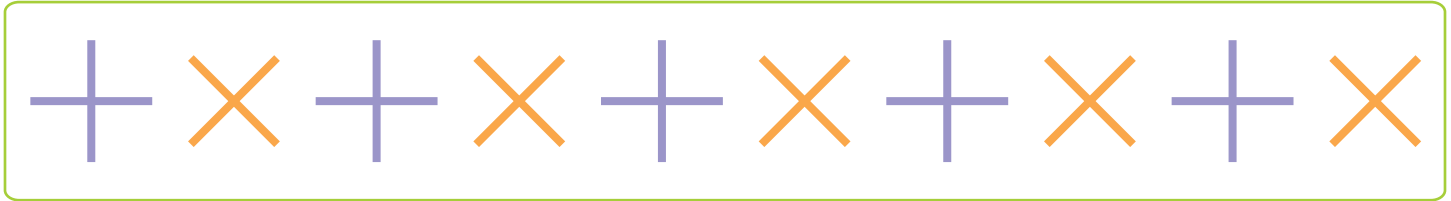
$$6 \overline{) 60}$$

$$3 \overline{) 30}$$

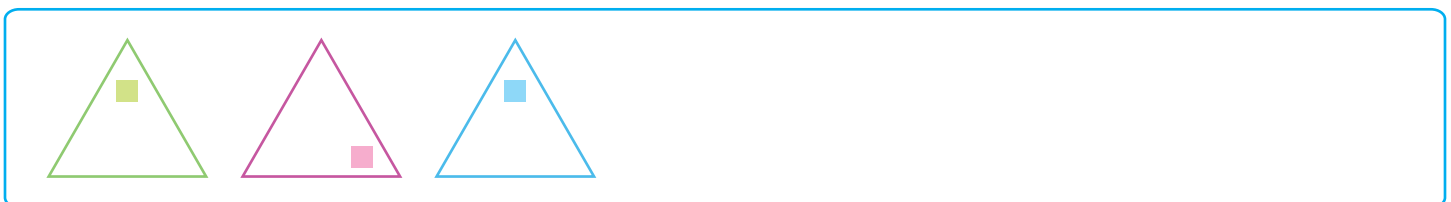
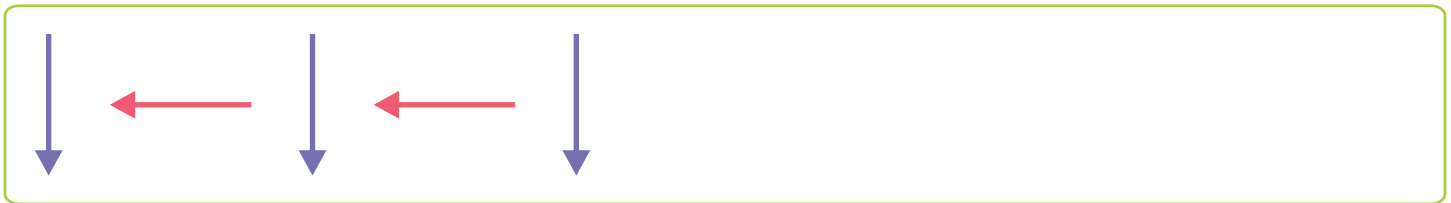


Patterns

Observe the given patterns:



Complete the given patterns:





Money

We need money to buy things. So, we use coins or notes.

Indian Currency

Indian currency are rupees and paise. The symbol of Indian rupee is “₹”. Let's know your coins and notes:

Indian Coins :



50 Paise



₹ 1



₹ 2



₹ 5



₹ 10

Indian Paper Currency :



₹ 1



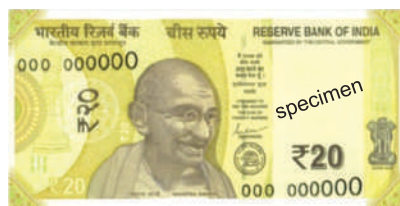
₹ 2



₹ 5



₹ 10



₹ 20



₹ 50



₹ 100



₹ 200



₹ 500



₹ 2000

Write the price of the following objects:



₹



₹



₹



₹



₹



₹



₹



₹



₹



₹



₹



₹

EXERCISE

Add the money



 $+$
 $+$
 $+$
 $+$
 $=$
₹ _____ P _____


 $+$
 $+$
 $+$
 $+$
 $=$
₹ _____ P _____


 $+$
 $+$
 $+$
 $+$
 $=$
₹ _____


 $+$
 $+$
 $+$
 $+$
 $=$
₹ _____ P _____


 $+$
 $+$
 $+$
 $=$
₹ _____


 $+$
 $+$
 $+$
 $=$
₹ _____


 $+$
 $+$
 $+$
 $=$
₹ _____


 $+$
 $+$
 $+$
 $=$
₹ _____

Exercise

Fill in the boxes :

$$₹ 3 = ₹ 2 + \boxed{}$$

$$₹ 7 = ₹ 5 + \boxed{}$$

$$₹ 10 = ₹ 5 + \boxed{}$$

$$₹ 1 = 50 \text{ paise} + \boxed{}$$

$$₹ 12 = ₹ 2 + \boxed{}$$

$$₹ 20 = ₹ 10 + \boxed{}$$

$$₹ 70 = ₹ 20 + \boxed{}$$

$$₹ 100 = ₹ 50 + \boxed{}$$

$$₹ 40 = ₹ 20 + \boxed{}$$

$$₹ 15 = ₹ 5 + \boxed{}$$

Note : ₹ is new symbol for 'Rs' that is rupees.

Answer the following questions :

1. How many paise are there in 1 rupee ?
2. How many 2 rupees notes do you get for a 10 rupees note ?
3. How many 5 rupees notes do you get for a 10 rupees note ?
4. How many 5 rupees notes do you get for a 20 rupees note ?
5. How many 10 rupees notes do you get for a 50 rupees note ?
6. How many 50 rupees notes do you get for a 100 rupees note ?