Lesson -10 Multiplication

L8M2E3

Sona has caught a fever

On Monday Sona caught a fever
Grandpa saw him shiver.

The doctor came in the evening
He prescribed him some medicines.

He got well in three days
By taking two pills a day

Next day Sona went to school
Do you know how many pills he took?

On day one he took 2 pills

On day two he took 2 pills

On day three he took 2 pills

Total number of pills he took

2 + 2 + 2 = 6

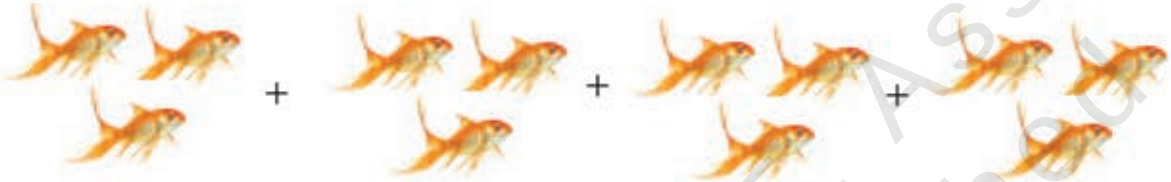
That is, 3 (three) times 2 (two) = 6

Let us count

2 + 2 + 2 = 6

That means 3 groups of 2 flowers = 6 flowers

Or 3 times 2 = 6



3 + 3 + 3 + 3 = 12

That means 4 groups of 3 fishes = 12 fishes

Or 4 times 3 = 12

4 + 4 = 8

That means 2 groups of 4 mangoes = 8 mangoes

Or 2 times 4 = 8

2 + 2 + 2 + 2 + 2 = 10

That means 5 groups of 2 shuttles = 10 shuttles

Or 5 times 2 = 10

Count and write

2 + 2 + 2 + 2 = 8

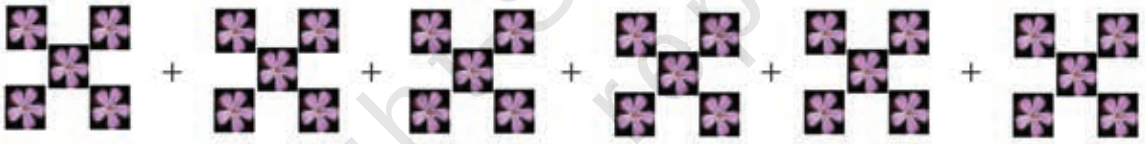
Or, adding 2 for 4 times gives 8 or, $2 \times 4 = 8$

3 + 3 + 3 = 9

Or, adding 3 for 3 times gives 9 or, $3 \times 3 = 9$

4 + 4 + 4 + 4 + 4 = 20

Or, adding ..... for ..... times gives ..... or, ... × ..... = ...



5 + 5 + 5 + 5 + 5 + 5 = 30

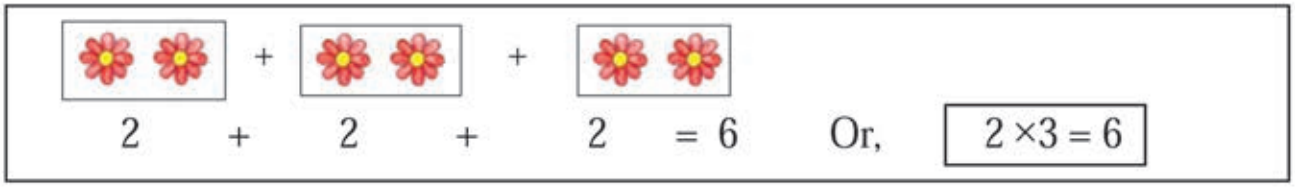
Or, adding ..... for ..... times gives ..... or, ... × ..... = ...

6 + 6 + 6 + 6 + 6 + 6 = 36

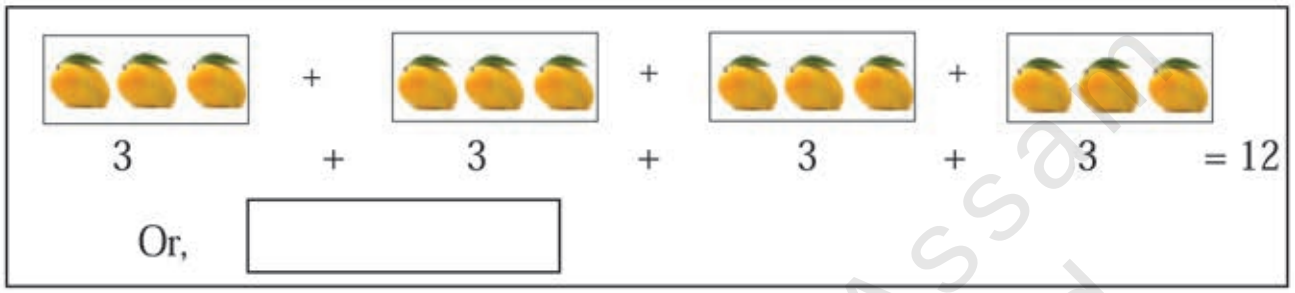
Or, adding ..... for ..... times gives ..... . or, ... × ..... = ...

The number of times a particular number is added is the number by which the given number is multiplied. Multiplication is represented by the symbol '×'.

Let's write by using the multiplication symbol

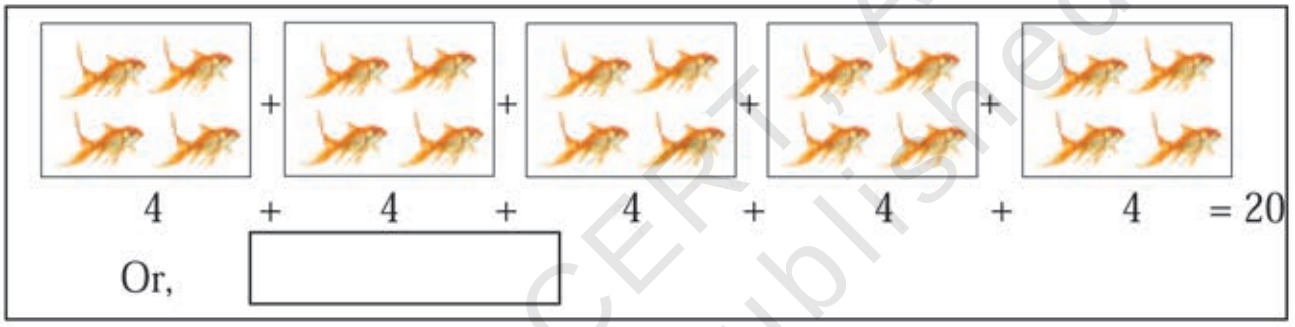


2 + 2 + 2 = 6 Or, $2 \times 3 = 6$



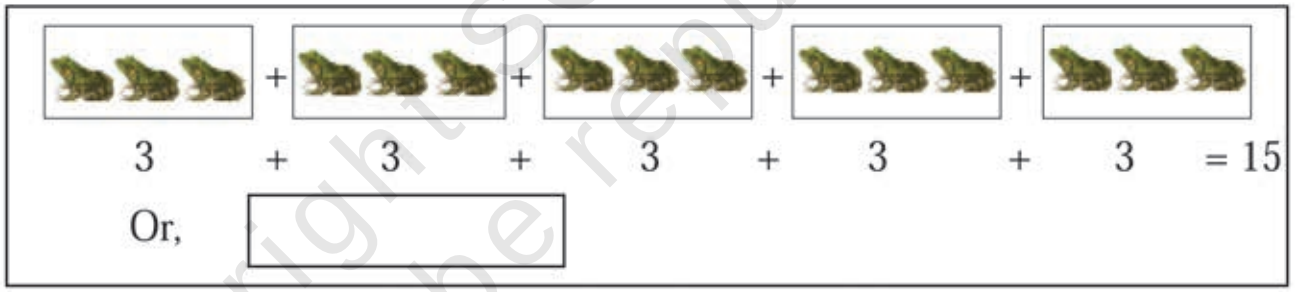
3 + 3 + 3 + 3 = 12

Or, ☐



4 + 4 + 4 + 4 + 4 = 20

Or, ☐



3 + 3 + 3 + 3 + 3 = 15

Or, ☐

Fill in the boxes with correct answers

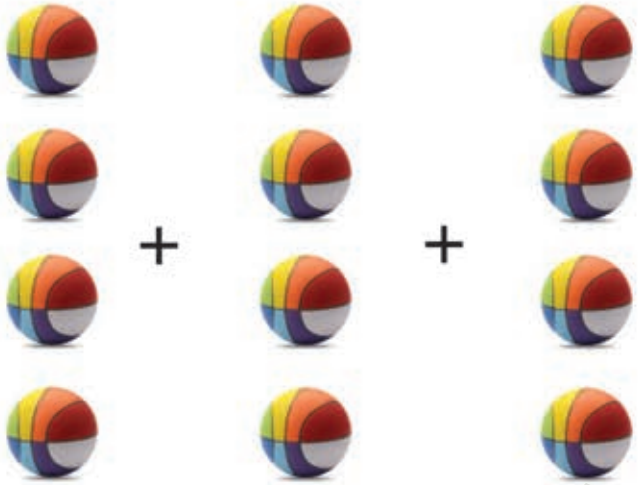
☐ × ☐ = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

☐ × ☐ = ☐

Let's count the balls

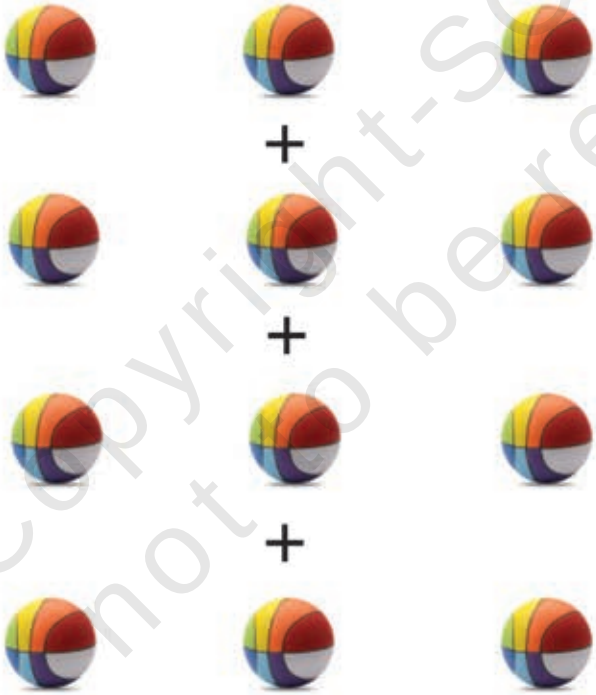


4 balls have been added three times

That means, $4 + 4 + 4 = 12$

$4 \times 3 = 12$

Now, let's count the balls in this way



3 balls have been added four times.

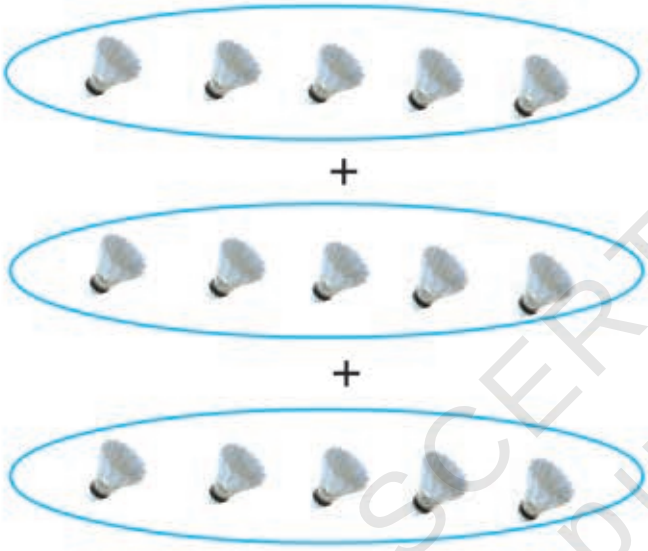
which means, $3 + 3+3+3=12$

Or, $3 \times 4 = 12$

We arrive at the same result by counting the balls in both ways.

Fill in the blanks

..... +..... +..... + ... + ... = ...×.....= .....



.....

+

.....

+

.....

= .....×..... = ...

Rewrite the following by using '+' sign

2 ×4 means, ...4 times 2. or, ... + ... + ... +.....

12×3 means, ... times 12. or, ... + ... + ...

15×4 means, ... times 15. or, ... + ... + ... +.....

9×6 means, ... times 9. or, ... + ... + ... +..... + ... + ...

4×9 means, ... times 4. or, ... + ... + ... +..... + ... + ...

+.....+ ..... + ...

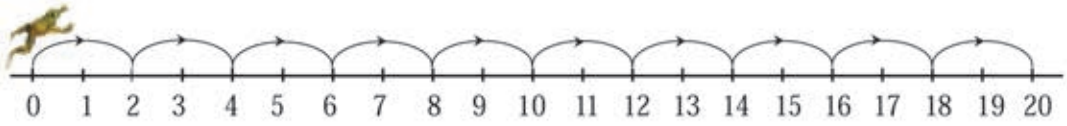
Fill in the blanks

7 + 7 + 7 + 7 + 7 + 7	= 7 × 6 = 42
5 + 5 + 5 + 5	= ..... × ..... = ...
4 + 4 + 4 + 4 + 4 + 4+ 4	= ..... × ..... = ...
9 +9 + 9 + 9 + 9	= ..... × ..... = ...
10 + 10 + 10	= ..... × ..... = ...
13 + 13 + 13 + 13	= ..... × ..... = ...
3 + 3 + 3 + 3 + 3 + 3 + 3 + 3	= ..... × ..... = ...
20 + 20	= ..... × ..... = ...

Let's see, how many times of 1 is equal to what

	1 one time (once)	1 × 1= 1
	1two times (twice)	1 × 2 = 2
	1three times (thrice)	1 × 3 = 3
	1four times	1 × 4 = 4
	1 five times	1 × 5 = 5
	1 six times	1 × 6 = 6
	1 seven times	1 × 7 = 7
	1 eight times	1 × 8 = 8
	1 nine times	1 × 9 = 9
	1 ten times	1 × 10 = 10

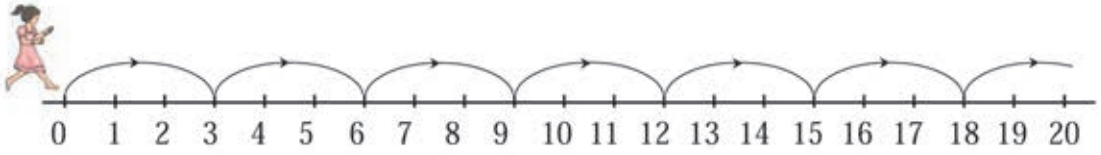
How many times 2?



The frog jumps 2 steps every time.
Which numbers will the frog reach?

2 steps1 time	$2 \times 1 = 2$
2 steps 2 times	$2 \times 2 = 4$
2 steps 3 times	$2 \times 3 = 6$
2 steps 4 times	$2 \times 4 = 8$
2 steps 5 times	$2 \times 5 = 10$
2 steps 6 times	$2 \times 6 = 12$
2 steps 7 times	$2 \times 7 = 14$
2 steps 8 times	$2 \times 8 = 16$
2 steps 9 times	$2 \times 9 = 18$
2 steps 10 times	$2 \times 10 = 20$

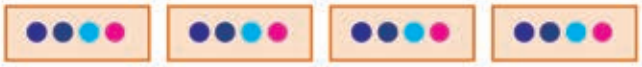
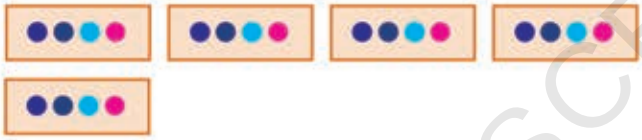
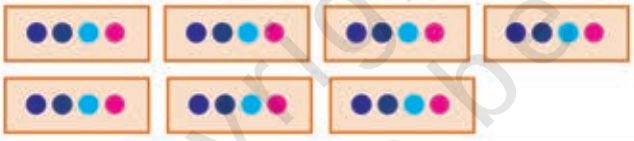
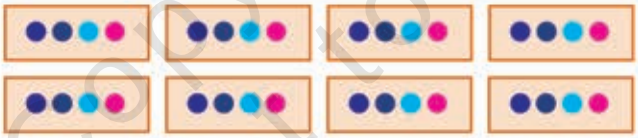
How many times 3 ?



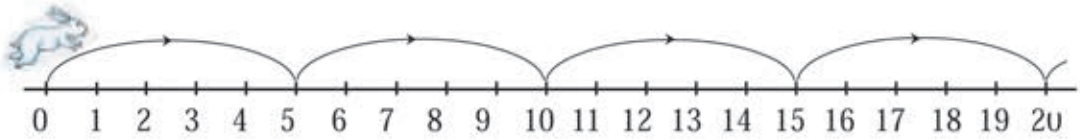
Mamoni jumps 3 steps every time.
Which numbers will Mamoni reach?

3 steps 1 time	$3 \times 1 = 3$
3 steps 2 times	$3 \times 2 = 6$
3 steps 3 times	$3 \times 3 = 9$
3 steps 4 times	$3 \times 4 = 12$
3 steps 5 times	$3 \times 5 = 15$
3 steps 6 times	$3 \times 6 = 18$
3 steps 7 times	$3 \times 7 = 21$
3 steps 8 times	$3 \times 8 = 24$
3 steps 9 times	$3 \times 9 = 27$
3 steps 10 times	$3 \times 10 = 30$

Let us complete the multiplication table of 4

Multiplication table of 4		
	4 one time	$4 \times 1 = 4$
	4 two times	.....× ..... = ...
	4 three times	.....× ..... = ...
	4 four times	.....× ..... = ...
	4 five times	.....× ..... = ...
	4 six times	.....× ..... = ...
	4 seven times	.....×..... =.....
	4 eight times	.....× ..... =.....
	4 nine times	.....× ..... = ...
	4 ten times	..... × ..... = ...

How many times 5 ?



The rabbit jumps 5 steps every time.
Which numbers will the rabbit reach?

5 steps 1 time	$5 \times 1 = 5$
5 steps 2 times	$5 \times 2 = 10$
5 steps 3 times	$5 \times 3 = 15$
5 steps 4 times	$5 \times 4 = 20$
5 steps 5 times	$5 \times 5 = 25$
5 steps 6 times	$5 \times 6 = 30$
5 steps 7 times	$5 \times 7 = 35$
5 steps 8 times	$5 \times 8 = 40$
5 steps 9 times	$5 \times 9 = 45$
5 steps 10 times	$5 \times 10 = 50$

Fill in the blanks

$3 \times 1 = 3$	$4 \times 1 =$	$5 \times 1 = 5$
$3 \times 2 =$	$4 \times 2 = 8$	$5 \times 2 =$ .....
$3 \times 3 =$	$4 \times 3 =$	$5 \times 3 =$ .....
$3 \times 4 =$	$4 \times 4 =$	$5 \times 4 =$ .....
$3 \times 5 = 15$	$4 \times 5 =$	$5 \times 5 =$ .....
$3 \times 6 =$	$4 \times 6 = 24$	$5 \times 6 =$ .....
$3 \times 7 =$	$4 \times 7 =$	$5 \times 7 =$ .....
$3 \times 8 =$	$4 \times 8 =$	$5 \times 8 =$ .....
$3 \times 9 =$	$4 \times 9 = 36$	$5 \times 9 =$ .....
$3 \times 10 = 30$	$4 \times 10 =$	$5 \times 10 = 50$

Fill in the blanks

$2 \times 6 = --$	$6 \times 2 = --$
$3 \times 5 = --$	$5 \times 3 = --$
$4 \times 6 = --$	$6 \times 4 = --$
$2 \times 8 = --$	$8 \times 2 = --$
$3 \times 7 = --$	$7 \times 3 = --$
$4 \times 9 = --$	$9 \times 4 = --$

Solve-

(1) If there are 5 petals in one flower, how many petals are there in 2 flowers?

5 × 2 = 10

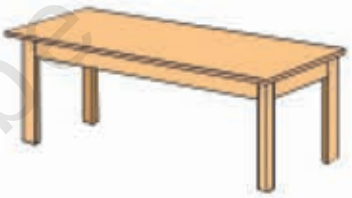
(2) A cow has 4 legs. How many legs will 3 cows have?

□ × □ = □

(3) A cycle has 2 wheels. How many wheels do 5 cycles have?

□ × □ = □

(4) A bench has 4 legs. How many legs do 6 benches have?



□ × □ = □

(5) A rickshaw has 3 wheels. How many wheels do 8 rickshaws have?

□ × □ = □

(6) If a hen lays 3 eggs in one week, how many eggs will she lay in 3 weeks?

☐ × ☐ = ☐

(7) If a garland has 5 flowers, how many flowers will be in 3 garlands?

☐ × ☐ = ☐

(8) There are 4 *laddu* in one plate, How many *laddu* will be in 5 such plates?

☐ × ☐ = ☐

(9) If a girl wears 4 bangles, how many bangles will be needed for 6 girls?

☐ × ☐ = ☐

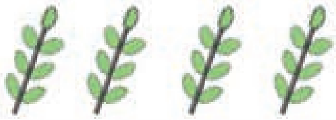
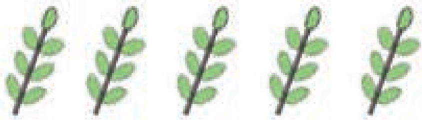
(10) A week has 7 days. How many days are there in 3 weeks?

☐ × ☐ = ☐

Let us complete the multiplication table of 6

Multiplication table of 6		
6	6 one time	$6 \times 1 = 6$
6 + 6	.....	..... × ..... = ...
6 + 6 +6	.....	..... × ..... = ...
6 + 6 + 6 + 6	.....	..... × ..... = ...
6 + 6 + 6 + 6 + 6	.....	..... × ..... = ...
6 + 6 + 6 + 6 + 6 + 6	.....	..... × ..... = ...
6 + 6 + 6 + 6 + 6 + 6 + 6	.....	..... × ..... = ...
6 + 6 + 6 + 6 + 6 + 6 + 6 + 6	.....	..... × ..... = ...
6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6	.....	..... × ..... = ...
6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6	.....	..... × ..... = ...

Let us complete the multiplication table of 7

Multiplication table of 7		
	7 one time	7 × 1 = 7
	....	..... × ..... = ...
	....	..... × ..... = ...
	....	..... × ..... = ...
	....	..... × ..... = ...
	....	..... × ..... = ...
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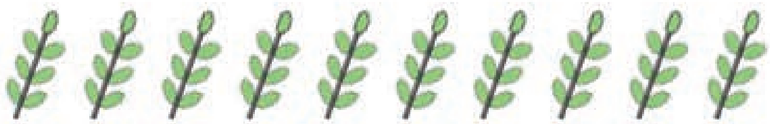
	....	..... × ..... = ...
	....	..... × ..... = ...
	....	..... × ..... = ...

Let us complete the multiplication table of 8

Multiplication table of 8		
8	8 one time	$8 \times 1 = 8$
8 + 8	.....	..... × ..... = ...
8 + 8 +8	.....	..... × ..... = ...
8 + 8 + 8 + 8	.....	..... × ..... = ...
8 + 8 + 8 + 8 + 8	.....	..... × ..... = ...
8 + 8 + 8 + 8 + 8 + 8	.....	..... × ..... = ...
8 + 8 + 8 + 8 + 8 + 8 + 8	.....	..... × ..... = ...
8 + 8 + 8 + 8 + 8 + 8 + 8 + 8	.....	..... × ..... = ...
8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8	.....	..... × ..... = ...
8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8	.....	..... × ..... = ...

Let us complete the multiplication table of 9

Multiplication table of 9		
9	9 one time	$9 \times 1 = 9$
9 + 9	.....	..... × ..... = ...
9 + 9 + 9	.....	..... × ..... = ...
9 + 9 + 9 + 9	.....	..... × ..... = ...
9 + 9 + 9 + 9 + 9	.....	..... × ..... = ...
9 + 9 + 9 + 9 + 9 + 9	.....	..... × ..... = ...
9 + 9 + 9 + 9 + 9 + 9 + 9	.....	..... × ..... = ...
9 + 9 + 9 + 9 + 9 + 9 + 9 + 9	.....	..... × ..... = ...
9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9	.....	..... × ..... = ...
9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9	.....	..... × ..... = ...

Let us complete the multiplication table of 10

Multiplication table of 10		
	10 one time	.....× ..... = ...
	10 two times	.....× ..... = ...
	10 three times	.....× ..... = ...
	10 four times	.....× ..... = ...
	10 five times	.....× ..... = ...
	10 six times	.....× ..... = ...
	10 seven times	.....× ..... = ...
	10 eight times	.....× ..... = ...
	10 nine times	.....×..... = ...
	10 ten times	.....×..... = ...

Identify the patterns and complete the following

2	4	6	8	10	12	14	16	18	20
4	8	12							
7	14	21							
9	18	27							

Instruction to the Teachers: *Use multiplication table to complete the patterns.*

Fill in the blanks

6 × 2 = ––	6 × 4 = ––	6 × 6 = ––
7 × 3 = ––	7 × 5 = ––	7 × 7 = ––
8 × 4 = ––	8 × 9 = ––	8 × 2 = ––
9 × 4 = ––	9 × 9 = ––	9 × 7 = ––
10 × 1 = ––	10 × 8 = ––	10 × 10 = ––

Fill in the blanks

2 × — = 8	7 × — = 49
4 × — = 32	8 × — = 64
5 × — = 25	9 × — = 81
6 × — = 30	10 × — = 50

Let's multiply

6 × 4 =	3 × 7 =	4 × 5 =	6 × 5 =	7 × 9 =
8 × 5 =	7 × 4 =	9 × 3 =	8 × 8 =	6 × 6 =

Solve the following:

- If the price of one ballon is ₹ 5, what will be the total price of 8 balloons?
- If the price of one egg is ₹ 5, what will be the total price of 6 eggs?
- If the price of one lemon is ₹ 7, what will be the total price of 7 lemons?
- If the price of one hair clip is ₹ 10, what will be the total price of 4 hair clips?
- If the price of one biscuit is ₹ 5, what will be the total price of 10 biscuits?
- If 2 boys are on a cycle, how many boys will be on 7 cycles?

Let's solve the riddle

(a) 7 eggs are in a dish.
How many eggs
In 4 such dishes
Can you keep?

(b) 3 blades are in a fan
Which move round and round
How many blades are in 6 fans
Can you count?

Irfan, Ronit and Rangmili are friends. Each of them has 12 chicks. Let us see how many chicks they have in all

Tens	Ones
1	2
×	3
3	6

Ronit's idea of solution

We can solve it in this way also

	10	2
3	10 × 3 30	2 × 3 6

By adding 30 and 6 we get

$$\begin{array}{r} 30 \\ +\ 6 \\ \hline 36 \end{array}$$

That means, 3 times 12 is 36

Rupahi, Jonali and Tagar are friends. Each of them has 14 betel nut trees in their house. How many trees do they have in all?

Rangmili's idea of solution

	10	4
3	10 × 3 30	4 × 3 12

Now 30 + 12 = 42

That means, 3 times 14 is 42

Multiply

(a) 18 × 1

(b) 22 × 3

(c) 24 × 2

(d) 39 × 2

(e) 37 × 4

(f) 38 × 7

(g) 48 × 6

(h) 59 × 8

(i) 90 × 9

Solve

(a) A book has 29 pages.
How many pages do 4 such books have?

(b) If a box holds 49 books, how many books will 3 such boxes hold?

(c) The cost of a ball is ₹ 60.
What will be the cost of 5 such balls?

Let us multiply with sticks

Take 5 sticks.

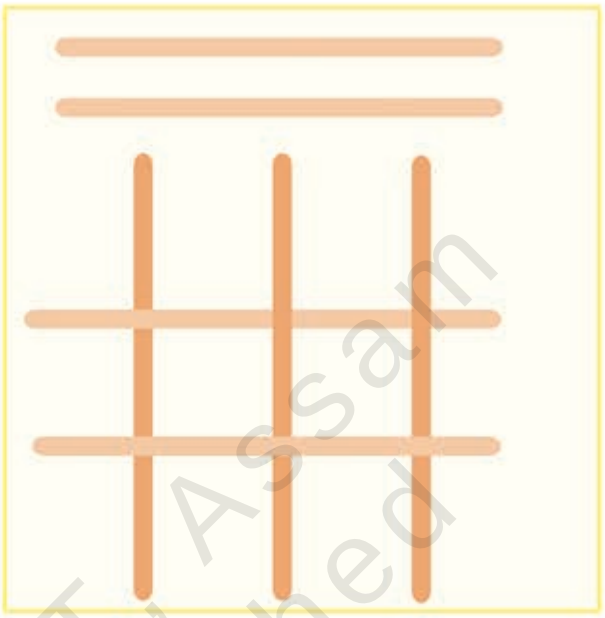
Arrange them as shown in the picture.

Put 3 sticks vertically

and put 2 sticks horigontally on them.

Now, count the number of criss-cross points created by the sticks.

The number you will get is the product of 2 and 3, That is, $2 \times 3 = 6$



Now, arrange the sticks and count