9 Multiplication of Numbers (I)

1. Look at the following picture. Observe the rows of trees. Say how many they are.

Teacher: Ravi, in how many rows can you see the trees length wise?

Ravi : Two rows.

Teacher: Ravi, how many trees are there in each row? What is their total number?

Ravi : There are 6 trees in each row. Their total is 6 + 6 = 12

It means there are 6 trees in each of the two rows.

We can write it as *2 × 6 = 12.*

It means adding 6 two times.

6 + 6 = 12
2 × 6 = 12

Teacher: Rahim, how many trees can you see the trees breadth wise?

Rahim : Six rows.

Teacher: Rahim, how many trees are there in each row? What is their total number?

Rahim : There are two trees in each row. Their total is 2 + 2 + 2 + 2 + 2 + 2 = 12.

It means there are two trees in six rows.

We write it as 6 × 2 = 12.

It means adding 2 six times.

2 + 2 + 2 + 2 + 2 + 2 = 12
6 × 2 = 12

Adding a number again and again is called successive addition.

2 × 6 = 12; 6 × 2 = 12

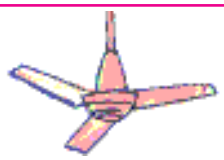
Here we have used a symbol ×. It is called the symbol for multiplication.

Successive addition is another form of 'multiplication'?

Get your pupils to identify the concept of multiplicaton using the rows of trees and the number of trees in each row shown in the above picture. Introduce the symbol of multiplication to your pupils.

1. Look at the pictures of fans. Count the wings. Say how many they are.

Multplication of numbers:

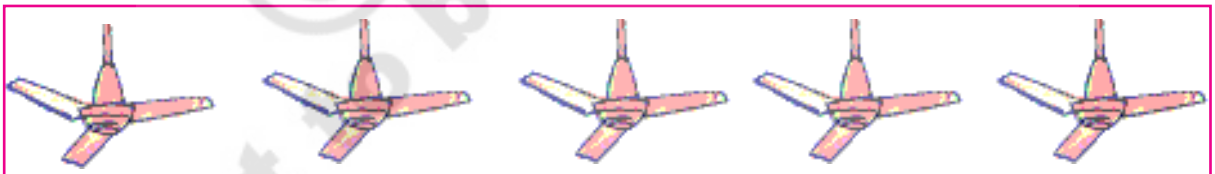


One fan has 3 wings = 1 × 3

Two fans have 3 + 3 = 6 wings = 2 × 3

Three fans have 3 + 3 + 3 = 9 wings = 3 × 3

Four fans have 3 + 3 + 3 + 3 = 12 wings = 4 × 3



Five fans have 3 + 3 + 3 + 3 + 3 = 15 wings = ...

If you write the above multiplications in a table,

1 × 3 = **3**

2 × 3 = **6**

3 × 3 = **9**

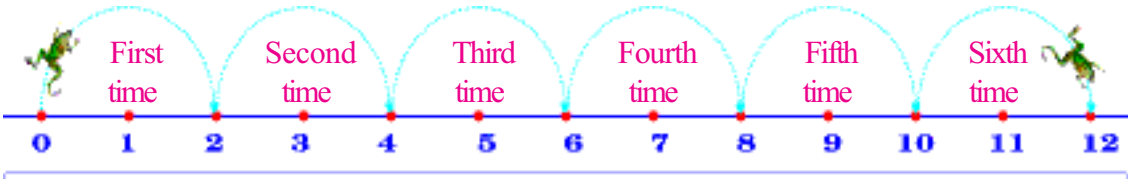
4 × 3 = **12**

5 × 3 = **15**

3, 6, 9, 12, 15 are called the products.

Introduce the operation of multiplicaton to your pupils by counting the wings of the fans given above. Help them to identify the products.

3. Look at the leaps of a frog shown below. It leaps two feet at a time. With this information, study the table and fill in the blank boxes with correct numbers.



Number of leaps	Distance covered in feet	The number reached	Shown as multiplication
1	2	2	1 × 2 = 2
2	2 + 2	4	2 × 2 = 4
3	2 + 2 + 2	6	3 × 2 =
4			4 × 2 =
5			
6			
7			
8			
9			
10			

Get your pupils to observe the above picture. Let them count the number of leaps made by the frog. Get them to write the multiplication at each leap.

Exercise

1. Count the fingers shown below. Fill in the blank boxes with the correct numbers.

Number of fingers on one hand = 5 = 1 × 5 = 5

Number of fingers on two hands = 5 + 5 = 2 × 5 = 10

Number of fingers on three hands= ☐ + ☐ + ☐ = ☐ × ☐ = ☐

Number of fingers on four hands = ☐ + ☐ + ☐ + ☐ = ☐ × ☐ = ☐

Number of fingers on five hands= ☐ + ☐ + ☐ + ☐ + ☐ = ☐ × ☐ = ☐

Get your pupils to understand the instruction for each problem. Let them solve the problems 1 to 10 by themselves.

2. Show the following additions in the form of multiplications.

Example: $4 + 4 + 4 + 4 + 4 = 5 \times 4 = 20$

(a) $7 + 7 + 7 + 7 = \square \times \square = \square$

(b) $3 + 3 + 3 + 3 + 3 + 3 + 3 = \square \times \square = \square$

(c) $6 + 6 + 6 + 6 + 6 = \square \times \square = \square$

(d) $2 + 2 + 2 + 2 + 2 + 2 = \square \times \square = \square$

3. Write the following multiplications as successive additons. One example is given.

Ex: $7 \times 8 = 8 + 8 + 8 + 8 + 8 + 8 + 8$

(a) $3 \times 4 =$

(b) $6 \times 5 =$

(c) $8 \times 3 =$

(d) $5 \times 2 =$

(e) $4 \times 6 =$

Get your pupils to understand the instruction for each problem. Let them solve the problems by themselves.

4. Count the dots in rows and columns. Fill in the blanks in the table. Write them in the form of multiplication.

Dots	in column	in rows	Form of multiplication
	3	5	5 × 3 = 15
	5	3	.....
	.....	.....	.....
	.....	.....	.....

5×3 = 3×5 = 15

__×__ = __×__ = __

5. Multiply the numbers given.

(a) 4 × 5 =

(b) 3 × 4 =

(c) 5 × 2 =

(d) 8 × 6 =

6. Multiply the number in the first column by those in the top row. Write the product in the blank box.

×	4	6	7	8	9
2	8				
3					
5					

Ex:- 2 × 4 = 8

Get your pupils to understand the instruction for each problem. Let them solve all the problems by themselves.

7. Of the three multiplications given in each row, one has a different answer. Identify it and draw '◯' around it. One example is given.

Ex:	4 × 3;	6 × 2;	5 × 4
(a)	2 × 8;	4 × 4;	3 ×4
(b)	6 × 6;	7 × 6;	9 × 4
(c)	8 × 5;	8 × 3;	6 × 4

8. Fill in the blank boxes with the correct numbers.

Ex: 3 × 4 = 4 × 3

(a) 5 × 6 = 6 × ☐

(b) 2 × 5 = ☐ × ☐

(c) ☐ × ☐ = 8 × 7

(d) 3 × ☐ = 9 × 3

Match the following.

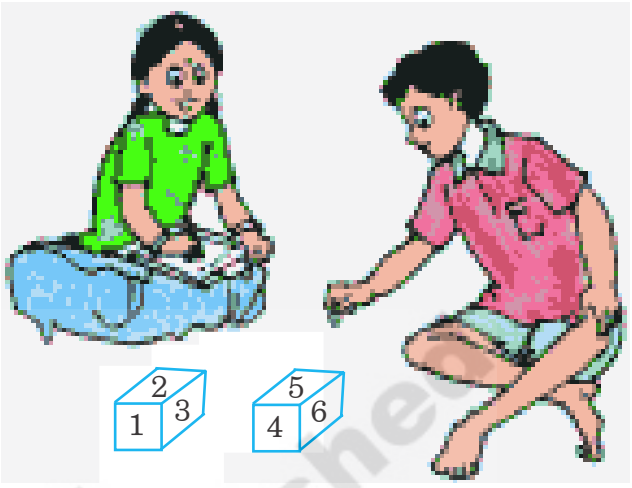
2 + 2 + 2 + 2	27
9 × 3	6 × 3
2 × 3	12
3 + 3 + 3 + 3 + 3 + 3	5 + 5 + 5
number of wheels of six bicycles	4 × 2
3 × 5	3 × 2

Example

Get your pupils to understand the instructon for each problem. Let them solve the problems by themselves.

10. Play this game.

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36



- ★ Two pupils can play this game.
- ★ Take two dice with numbers 1, 2, 3, 4, 5 and 6 on their faces.
- ★ Throw the dice together on the floor.
- ★ Multiply the numbers on the two faces of the dice. Put a mark on the chart at the number as shown above.

  Ex:- numbers on dice: 2 , 5

  $2 \times 5 = 10$
- ★ Then the second pupil does this. Put a mark on the chart.
- ★ If the same product comes it is not marked. The other pupil gets the chance.
- ★ After playing 10 times, one who has more marks on the chart is the winner.

Get your pupils to play the above game according to the rules given. Let them practise multiplying simple numbers.