

Sub:- Maths

Class:- 3

Chapter:- 4 [Multiplication]

Multiplication is a way of adding or counting equal number repeatedly. The symbol of multiplication is 'x'.

Look at these

$$\begin{array}{c} \downarrow 3 \text{ times} \\ 2 + 2 + 2 = 6 \end{array}$$

$$3 \times 2 = 6 \rightarrow (\text{Total Number})$$

[Number of groups] [Number in each group]

Now another example :-

1 cockroach has 6 legs

3 cockroach has  $6 + 6 + 6 = 18$  legs

In Multiplication, we write this as

$$3 \times 6 = 18$$

another example

1 branch has 9 leaves

3 branches have

$$9 + 9 + 9 = 27 \text{ leaves}$$

or  $9 \times 3 = 27$

We say,

Three nines are twenty-seven.

## Exercise

Fill in the blanks in

1. Groups of 4 strawberries.

There are 3 groups of 4 strawberries.

$$3 \times 4 = \underline{\quad} + \underline{\quad} + \underline{\quad} = 12$$

2. Groups of 5 cherries.

There are 4 groups of 5 cherries.

$$4 \times \underline{\quad} = \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = 20$$

3. Groups of 4 mangoes.

There are 4 groups of 4 mangoes.

$$\underline{\quad} \times \underline{\quad} = \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

4. Groups of 3 pears.

There are 3 groups of 3 pears.

$$3 \times \underline{\quad} = \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

5. Groups of 5 eggs.

There are 3 groups of 3 eggs.

$$3 \times 5 = \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

6. Groups of 2 grapes.

There are 2 groups of 6 grapes.

$$\underline{\quad} \times \underline{\quad} = \underline{\quad} + \underline{\quad} = \underline{\quad}$$

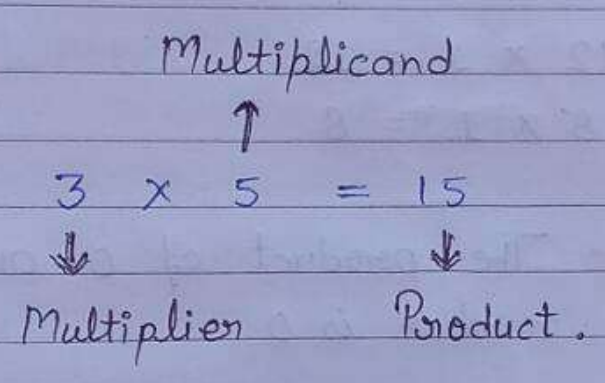
∴ Terms of Multiplication :-

We read  $8 \times 3 = 24$  as '3 multiplied by 8 is 24'.  
Here 8 is multiplier.

Multiplier is the number by which another number is multiplied.  
Here, 3 is multiplicand.

Multiplicand is the number that is being multiplied.  
24 is the product.

Product is the result of multiplication.



∴ Exercise :-

Write what term is coloured digit ?

- |                      |                |
|----------------------|----------------|
| a. $5 \times 3 = 15$ | <u>Product</u> |
| b. $7 \times 4 = 28$ | _____          |
| c. $2 \times 4 = 8$  | _____          |
| d. $3 \times 3 = 9$  | _____          |
| e. $5 \times 8 = 40$ | _____          |

∴ Properties of Multiplication :-

Property 1 :- Two numbers can be multiplied in any order, but the product remains the same.

Example :- (a)  $4 \times 3 = 12$   
 $3 \times 4 = 12$

(b)  $19 \times 2 = 38$   
 $2 \times 19 = 38$

Property 2 :- The product of 1 and any other number is the number itself.

Example :- a.  $12 \times 1 = 12$   
b.  $8 \times 1 = 8$

Property 3 :- The product of 0 and any other number is 0.

Example :-  
a.  $15 \times 0 = 0$   
b.  $0 \times 7 = 0$

Multiplication of 3 digit numbers by single digit Numbers

Multiply 132 by 2

H	T	O
1	3	2
	x	2
		4

Step 1 :-

Multiply the ones

$2 \times 2 = 4 \text{ ones.}$

H	T	O
1	3	2
	x	2
	6	4

Step 2 :-

Multiply the tens

$2 \times 3 = 6 \text{ tens.}$

H	T	O
1	3	2
	x	2
2	6	4

Step 3 :-

Multiply the hundreds

$2 \times 1 = 2$

Hence,

$132 \times 2 = 264$

∴ Exercise :-1. Multiply :-

a. 
$$\begin{array}{r} 15 \\ \times 6 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 23 \\ \times 2 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 32 \\ \times 3 \\ \hline \end{array}$$

d. 
$$\begin{array}{r} 21 \\ \times 9 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 63 \\ \times 2 \\ \hline \end{array}$$

f. 
$$\begin{array}{r} 34 \\ \times 7 \\ \hline \end{array}$$

2. Multiply :-

a. 
$$\begin{array}{r} 326 \\ \times 2 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 478 \\ \times 7 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 826 \\ \times 7 \\ \hline \end{array}$$

d. 
$$\begin{array}{r} 864 \\ \times 7 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 924 \\ \times 7 \\ \hline \end{array}$$

f. 
$$\begin{array}{r} 452 \\ \times 8 \\ \hline \end{array}$$

g. 
$$\begin{array}{r} 721 \\ \times 9 \\ \hline \end{array}$$

h. 
$$\begin{array}{r} 321 \\ \times 4 \\ \hline \end{array}$$

i. 
$$\begin{array}{r} 443 \\ \times 2 \\ \hline \end{array}$$

j. 
$$\begin{array}{r} 204 \\ \times 7 \\ \hline \end{array}$$

k. 
$$\begin{array}{r} 101 \\ \times 7 \\ \hline \end{array}$$

l. 
$$\begin{array}{r} 444 \\ \times 4 \\ \hline \end{array}$$

