

## Chapter - 4 Multiplication

### Multiplication facts

Property 1: -

Product of any number and 1 is that number itself. Also 1 multiplied by any number is the number itself.

$$A \times 1 = A. \text{ Also } 1 \times A = A.$$

Property 2: -

The product of two numbers is the same even if the order of number is changed.

So, we can interchange the multiple and multiplicand.

$$A \times B = B \times A$$

Property 3:

The product of a number and zero (0) is zero (0).

$$A \times 0 = 0 \quad \text{Also } 0 \times A = 0.$$

Property 4: -

The product of three numbers is the same even if the grouping of the multiplying numbers is changed.

$$(A \times B) \times C = A \times (B \times C)$$

## Exercise - 4.1

Find the following products: -

1.  $520912 \times 14$

$$\begin{array}{r}
 520912 \\
 \times 14 \\
 \hline
 2083648 \\
 520912 \\
 \hline
 7292768
 \end{array}$$

2.  $742318 \times 18 = 13361724$

3.  $329381 \times 26 = 8563906$

4.  $402813 \times 41 = 16515333$

5.  $618731 \times 89 = 55067059$

6.  $82183 \times 123 = 10108509$

7.  $27321 \times 239 =$

$$\begin{array}{r}
 27321 \\
 \times 239 \\
 \hline
 245889 \\
 81963 \\
 54642 \\
 \hline
 6529719
 \end{array}$$

8.  $229837 \times 35 = 8044295$

9.  $190291 \times 72 = 13700952$

10.  $1827491 \times 34 = 62134694$

11.  $159023 \times 613 = 97481099$

12.  $560923 \times 314 = 176129822$

$$13. \quad 1201287 \times 158 = 189803346$$

$$14. \quad 8930183 \times 78 = 696554274$$

$$15. \quad 3034814 \times 154 = 467361356$$

↔ Exercise - 4.2 ↔

1. Number of bags of Cement in one round  
 $= 721420$

∴ No. of bags of Cement transported in 75 rounds

$$= 721420 \times 75$$

$$= 54106500 \underline{\underline{A}}$$

2. Bricks are needed in each section

$$= 520085$$

No. of sections = 125

∴ total no. of bricks are required

$$= 520085 \times 125$$

$$= 65010625 \underline{\underline{A}}$$

3. Company produces Cars per week

$$= 142785$$

∴ no. of weeks = 95

∴ total no. of Cars produced

$$= 142785 \times 95$$

$$= 13564575 \underline{\underline{A}}$$

4. No. of Paintbrush in each bag = 204225

No. of bags = 596

$$\begin{aligned} \therefore \text{total no. of Paintbrushes} &= 204225 \times 596 \\ &= \underline{121718100} \\ &\quad \text{Ans} \end{aligned}$$

5. No. of items in each Carton -

9054  
No. of Cartons = 2195

$\therefore$  items will a Consignment in all

$$\begin{aligned} &= 9054 \times 2195 \\ &= \underline{19873530} \text{ Ans} \end{aligned}$$

↔ Exercise - 4.3 ↔

1.  $258273 \times 10$

To multiply a number by 10 Put one zero to the right of the number.

$$258273 \times 10 = \underline{2582730} \text{ Ans}$$

2.  $761231 \times 100$

To multiply a number by 100 put two zero to the right of the number.

$$761231 \times 100 = \underline{76123100} \text{ Ans}$$

5.

$$3. 617912 \times 1000$$

To multiply a number by 1000 put three zeros to the right of the number.

$$617912 \times 1000 = 617912000$$

$$4. 642 \times 10000$$

To multiply a number by 10000 put four zeros to the right of the number.

$$642 \times 10000 = 6420000 \underline{\underline{A}}$$

$$5. 264 \times 100000$$

To multiply a number by 100000 put five zeros to the right of the number.

$$264 \times 100000$$

$$= 26400000 \underline{\underline{A}}$$

$$6. 675 \times 1000000$$

To multiply a number by 1000000 put six zeros to the right of the number.

$$675 \times 1000000 = 675000000 \underline{\underline{A}}$$

$$7. 65 \times 100000$$

$$65 \times 100000 = 6500000 \underline{\underline{A}}$$

$$8. 72 \times 1000000 = 72000000 \underline{\underline{A}}$$

$$9. \quad 87 \times 10000000$$

To multiply a number by 10000000  
Put Seven zeros to the right of  
the number.

$$87 \times 10000000 = \underline{870000000} \text{ Ans}$$

$$10. \quad \begin{aligned} \text{No. of brushes in each packet} &= 100 \\ \text{No. of packets} &= 81924 \end{aligned}$$

$$\begin{aligned} \therefore \text{total no. of brushes in 81924 packets} \\ &= 81924 \times 100 \\ &= \underline{8192400} \end{aligned}$$

$$11. \quad \begin{aligned} \text{No. of items produced everyday} \\ &= 14305 \end{aligned}$$

$$\begin{aligned} \text{No. of days} &= 1000 \\ \text{Total No. of items produced in 1000 days} \\ &= 14305 \times 1000 \\ &= \underline{14305000} \text{ Ans} \end{aligned}$$

$$12. \quad \begin{aligned} \text{No. of typing sheets in each packet} &= 10000 \\ \text{No. of packets} &= 1532 \end{aligned}$$

$$\begin{aligned} \therefore \text{total no. of sheets in 1532 packets} \\ &= 1532 \times 10000 \\ &= \underline{15320000} \text{ Ans} \end{aligned}$$

$$13. \quad \begin{aligned} \text{No. of buttons in each pouch} &= 100000 \\ \text{No. of pouches} &= 8971 \end{aligned}$$

$$\begin{aligned} \therefore \text{total no. of buttons in 8971 pouch} &= \\ 100000 \times 8971 &= \underline{897100000} \text{ Ans} \end{aligned}$$

↔ Exercise - 4.4 ↔

Multiply:

1.  $40 \times 42483$

To multiply a number by 40 we multiply it by 4 and put a zero after it.

$42483 \times 4 = 169932$

So the product is 1699320.  
(we put a zero after 169932)

2.  $35687 \times 60 = 2141220$

3.  $12433 \times 500$

To multiply a number by 500 we multiply it by 5 and put a double zero after it.

$12433 \times 500 = \underline{6216500}$  Ans

4.  $600 \times 62384$

$= \underline{37430400}$  Ans

5.  $7000 \times 7233$

To multiply a number by 7000 we multiply it by 7 and put a three times zeros after it.

$7000 \times 7233 = \underline{50631000}$  Ans

6.  $2101 \times 8000$

$= \underline{16808000}$  Ans

$$7. 4224 \times 9000 = \underline{38016000 \text{ Rs}}$$

$$8. 30000 \times 4222$$

To multiply a number by 30000  
We multiply it by 3 and put a  
four times zeros after it.

$$30000 \times 4222 \\ = \underline{123660000 \text{ Rs}}$$

$$9. 90000 \times 2144 \\ = \underline{192960000 \text{ Rs}}$$

$$10. 343 \times 2000000$$

To multiply a number by 2000000  
We multiply it by 2 and put a  
two times zeros after it.

$$343 \times 2000000 \\ = \underline{686000000 \text{ Rs}}$$

$$11. \text{ No. of bottles in each Crate} = 60 \\ \text{ No. of bottles Creates in 62325 Consignment}$$

$$= 62325 \times 60$$

$$= \underline{3739500 \text{ Rs}}$$

$$12. \text{ No. of baskets of apples in one round} \\ = 3000$$

$$\text{Total no. of rounds} = 1324$$

$$\therefore \text{ total no. of baskets of apples in 1324 rounds}$$

$$= 1324 \times 3000$$

$$= \underline{3972000 \text{ Rs}}$$



$$8. \quad 8232 \times 9519$$

$$8000 \times 5000$$

$$= \underline{40000000 \text{ Ans}}$$

$$9. \quad \text{No. of Screws in each packet} = 3332$$

$$\text{No. of packets} = 11499$$

$$\text{Total no. of estimate Screws} =$$

$$33000 \times \cancel{10} / 10000$$

$$= \underline{330000000 \text{ Ans}}$$