

## Unit -3 Multiplication

Time to check 1}

1. Fill in the blanks

a.  $5 \times \boxed{0} = 0$

b.  $8,756 \times \boxed{1} = 8,756$

c.  $24,000 \times \boxed{1} = 24,000$

d.  $600 \times \boxed{3} = 3 \times 600$

e.  $54 \times 751 = 751 \times \boxed{54}$

f.  $129 \times 82 = 82 \times \boxed{129}$

2. Without actual multiplication, say the product of these numbers is odd even. If the product is even, write E and if it is odd.

a.  $675 \times 45$   Odd

b.  $344 \times 9$   Even

c.  $722 \times 12$  Even

d.  $123 \times 3$  Odd

e.  $654 \times 21$  Even

f.  $775 \times 18$  Even

3. Without actual multiplication find product.

a.  $456 \times 100 =$  45600

b.  $313 \times 10 =$  3130

c.  $721 \times 1,000 =$  721000

d.  $154 \times 10 =$  1540

e.  $664 \times 1,000 =$  664000

f.  $566 \times 100 =$  56600

## Properties of Multiplication

Time to check

1. Two numbers can be multiplied in any order. Their product remains the same.

Example:  $18 \times 7 = 126 ; 7 \times 18 = 126$

2. Three numbers can be grouped in any order and then multiplied. Their product remains the same.

Example:  $2 \times 3 \times 4 = (2 \times 3) \times 4 = 6 \times 4 = 24$   
 $= 2 \times (3 \times 4) = 2 \times 12 = 24$

3. The product of a number and 0 is always 0.

Example:  $4 \times 0 = 0$     $12 \times 0 = 0$     $150 \times 0 = 0$

4. The product of a number and 1 is the number itself.

Example:  $5 \times 1 = 5$     $12 \times 1 = 12$     $225 \times 1 = 225$

5. The product of an odd and even number is always even.

Example:  $932 \times 7 = 6,524$

even                              odd

6. The product of two odd numbers is always odd.

Example:  $75 \times 19 = 1,425$

7. The product of two even numbers is always even.

Example:  $96 \times 42 = 4,032$

8. To multiply a number by 10, place a zero to the right of the given number.

Example:  $75 \times 10 = 750$ ;  $639 \times 10 = 6,390$

9. To multiply a number by 100, place two zeros to the right of the given number

Examples:  $34 \times 100 = 3,400$ ;  $542 \times 100 = 54,200$

10. To multiply a number by 1,000, place three zeros to the right of the given number.

Examples:  $23 \times 1,000 = 23,000$ ;  $778 \times 1,000 = 778,000$