

| SESSION        | : 6                         |
|----------------|-----------------------------|
| CLASS          | : IV                        |
| SUBJECT        | : MATHEMATICS               |
| CHAPTER NUMBER | : 10                        |
| CHAPTER NAME   | : FACTORS AND MULTIPLES     |
| SUBTOPIC       | : FACTORS AND PROPERTIES OF |
|                | FACTORS, EX-10 A            |

#### **CHANGING YOUR TOMORROW**

Website: www.odmegroup.org Email: info@odmps.org

#### Toll Free: 1800 120 2316

Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

## **LEARNING OBJECTIVE**

 Enable the students to understand the concept of factors and properties of factors.

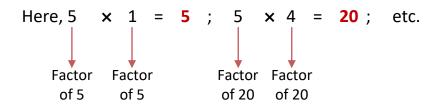


#### FACTORS

#### Let us recall the table of 5

| 5 | × | 1  | = | 5  |
|---|---|----|---|----|
| 5 | × | 2  | = | 10 |
| 5 | × | 3  | = | 15 |
| 5 | × | 4  | = | 20 |
| 5 | × | 5  | = | 25 |
| 5 | × | 6  | = | 30 |
| 5 | × | 7  | = | 35 |
| 5 | × | 8  | = | 40 |
| 5 | × | 9  | = | 45 |
| 5 | × | 10 | = | 50 |
|   |   |    |   |    |

When we multiply **2** numbers, each of the numbers being multiplied is called a factor of the product.



Similarly,  $8 \times 9 = 72$ . So, 8 and 9 are factors of 72.

Note : 1. For a number to be a factor of any number, it has to completely divide that number without leaving any remainder.



2. every number will have at least 2 factors, 1 and the number itself.



 1 is a factors of each number. Each number can be written as a product of 1 and the number itself.

> Example: 15 = 1 × 15 36 = 1 × 36 17 = 1 × 17







**Properties of Factors** 



**2. 1** is the only number which has only one factors.





**3.** A factors of a number (other than zero) is either less than or equal to the number itself.

For Example:  $12 = 1 \times 12; 2 \times 6; 3 \times 4$ 

So, factors of 12 are 1, 2, 3, 4, 6 and 12.



**1** is the smallest factors and the number itself is the greatest factors i.e. **12**. Therefore, a factor of a number is either less than or equal to itself.





**Example: 1** Find all the factors of 30.

| 1 | × | 30 | = | 30 |
|---|---|----|---|----|
| 2 | × | 15 | = | 30 |
| 3 | × | 10 | = | 30 |
| 5 | × | 6  | = | 30 |





So, the factors of 30 are 1, 2, 3, 5, 6, 10, 15 and 30 itself.



Is 9 a factor of 110? Example: 2 Let us divide 110 by 9 = n 

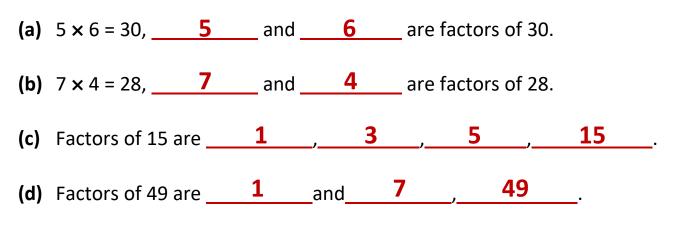


Since, 9 does not completely divide 110 and leaves 2 as a remainder, 9 is not a factor of 110.





- EXERCISE 10(A)
- 1) Fill in the blanks.





(e) <u>1</u> is a factor of every number.



EXERCISE - 10(A)

**2)** Tick ( $\checkmark$ ) the first number if it a factor of the second number:

(a) 7; 147 
$$\checkmark$$
 (b) 4; 264  $\checkmark$  (c) 4; 1728  $\checkmark$  (d) 5; 1055  $\checkmark$  . (e) 5; 17560  $\checkmark$  (f) 7; 2148  $\times$  (g) 7; 3507  $\checkmark$  (h) 9; 216  $\checkmark$  .  
(i) 11; 10,825  $\times$  (j) 11; 572  $\checkmark$  (k) 12; 847  $\times$  (l) 37; 71344  $\times$  .





EXERCISE - 10(A)

3) List all the factors of the following numbers:







EXERCISE - 10(A)

List all the factors of the following numbers: 3)









EXERCISE - 10(A)

3) List all the factors of the following numbers:



| ( <b>i)</b> 19 | 1, 19 |  |
|----------------|-------|--|
|                |       |  |

- (j) 96 <u>1, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 96</u>.
- (k) 120 <u>1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 24, 30, 40, 60, 120</u>.
- (I) 72 <u>1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72</u>.





EXERCISE - 10(A)

4) Write all the factors of 56. is 5 a factor of 56? Why?

The all factors of 56 = 1, 2, 4, 7, 8, 14, 28, 56

As per rule, A number is divisible by **5** if its last digit (one's digit) is either **zero** or **5** 

56 is not divisible by 5, as 56 last digit is 6.

So, **5** is not a factor of **56**.







## **HOME ASSIGNMENT:**

**Complete Exercise – 10 A in your note book.** 

## **LEARNING OUTCOME:**

Students are able to understand the concept of factors and properties of factors.



# THANKING YOU ODM EDUCATIONAL GROUP

