

CLASS : 5

SUBJECT : MATHEMATICS

TOPIC : MULTIPLES AND FACTORS

WORKSHEET

SYNOPSIS:

- The product of two or more numbers is the **multiple** of the numbers that are multiplied.
 - The numbers that are multiplied are called **factors**.
 - Every number is a multiple of 1 and a multiple of itself.
 - The multiples of a number are **endless**. A multiple of a number is equal to or greater than the number.
 - The multiples of even numbers are always even. The multiples of odd numbers can be either odd or even.
 - When number A can be divided by number B exactly, B is said to be the factor of A.
 - 1 is a factor of all numbers. It is also the smallest factor of a number.
 - Every number has at least two factors, that is, 1 and itself. The number 1 is an exception.
 - A number itself is the greatest factor of itself.
 - Divisibility rules help you to find if a number is completely divisible by another without actually dividing.
 - A number is divisible by 2, if the last digit is **0, 2, 4, 6 or 8**. For example: 12, 10, 256 etc.
 - A number is divisible by 5, if the last digit is **0 or 5**. For example: 55, 100 etc.
 - A number is divisible by 10, if the last digit is **0**. For example: 200, 1400 etc.
 - A number is divisible by 3, **if the sum of the digits is divisible by 3**. For example: 9, 21, 33 etc.
 - A number is divisible by 9, **if the sum of the digits is divisible by 9**. For example: 18, 81, 72, 90 etc.
 - Numbers with only two factors, that is, 1 and the number itself are called **prime numbers**. For example: 3, 5, 7 etc.
 - Numbers with three or more factors are called **composite numbers**. For example: 12, 14, 15 etc.
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EXAMPLES:

1. Find the first five multiples of 7.

$$7 \times 1 = 7$$

$$7 \times 2 = 14$$

$$7 \times 3 = 21$$

$$7 \times 4 = 28$$

$$7 \times 5 = 35$$

Ans. The first five multiples of 7 are 7, 14, 21, 28 and 35.

2. Write all the factors of 12.

FACTORS OF 12

$$1 \times 12$$

$$2 \times 6$$

$$3 \times 4$$

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

3. Find the prime factors of 45 using the prime factorisation method.

$$45 = 3 \times 15$$

$$= 3 \times 3 \times 5$$

Ans. $45 = 3 \times 3 \times 5$.

Students refer to the following videos:

- a) <https://www.youtube.com/watch?v=0IZyGB1qQmM&t=209s>
- b) <https://www.youtube.com/watch?v=41eVMYPCWTQ>
- c) <https://www.youtube.com/watch?v=7n5Qak9hnEU>

WORKSHEET:

I. Write the missing factor:

a) $\underline{\quad} \times 8 = 88$

b) $3 \times \underline{\quad} = 21$

c) $11 \times \underline{\quad} = 110$

d) $7 \times \underline{\quad} = 49$

II. Fill in the blanks :

- a) $3 \times 12 = \underline{\hspace{2cm}}$. $\underline{\hspace{2cm}}$ is a multiple of $\underline{\hspace{2cm}}$ and $\underline{\hspace{2cm}}$.
- b) $7 \times 8 = \underline{\hspace{2cm}}$. $\underline{\hspace{2cm}}$ is a multiple of $\underline{\hspace{2cm}}$ and $\underline{\hspace{2cm}}$.

III. Find the first six multiples of 8.

IV. Find out whether the following numbers are divisible by 2, 3, 5, 9 or 10.

- a) 66
- b) 1000
- c) 603
- d) 252
- e) 525

V. Express the following even composite numbers as the sum of two prime numbers.

- a) 12
- b) 36
- c) 28
- d) 10

VI. Complete the following exercises from the chapter:

- a) Warm up Exercise A on Page No. 41.
- b) Checkpoint (1 to 10) on Page No. 48.
