Chapter- 10

Factors and multiples

WORKSHEET

A. FILL IN THE BLANKS.

1. 1 is a factor of everyone.
2. 2 is the first even prime number.
3. The smallest multiple of a number is the number itself.
4. 0 is a multiple of every number.
5. Prime numbers are having 2 numbers of factors.

B. CHOOSE THE CORRECT ANSWER.

6. Every number is a multiple of 1.

   a. 0 b. 1 c. 33 d. None

7. Composite numbers are the numbers having more than two factors i.e other than 1 and the number itself.

   a. 0 b. 1 c. 33 d. None

8. Every composite number can be expressed as a product of all its prime factors.

   a. Prime b. Composite c. HCF d. None

9. Composite numbers are having more than 2 factors.

   a. 2 b. 1 c. 3 d. None

10. When a particular number is a multiple of 2 or more numbers, it is called a common multiple.

a. LCM b. HCF c. Common multiple ✓ d. None

C. ANSWER THE FOLLOWING QUESTIONS.

11. Write the first five multiples of 18.

Ans- 18, 36, 54, 72, 90

12. Find the HCF of 40, 50 and 60 by prime factorization method.

Ans-

2 | 40	2 | 50	2 | 60
2 | 20	5 | 25	2 | 30
2 | 10	5	3 | 15
5		5

40 = 2 × 2 × 2 × 5
50 = 2 × 5 × 5
60 = 2 × 2 × 3 × 5

HCF = 2 × 5 = 10

13. Find the LCM of 36 and 52 by listing method.

Multiples of 36 = 36, 72, 108, 144, 180, 216, 252, 288, 324, 360, 396, 432, (468)

Multiples of 52 = 52, 104, 156, 208, 260, 312, 364, 416, (468)

Here, 468 is the first common multiple of 36 and 52.
So, the LCM of 36 and 52 is 468.

14. Find the LCM of 15 and 90 by common division method.

3 | 15, 90
5 | 5, 30
1, 6

So, the LCM of 15 and 90 is 3 × 5 × 1 × 6 = 90

15. Find the HCF of 144, 180 and 192 by common division method.

2	144, 180, 192
2	72, 90, 96
3	36, 45, 48
	12, 15, 16

Hence the common factors are 2, 2, 3.

So, the HCF of 144, 180 and 192 = 2 × 2 × 3 = 12.

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