PRACTICE WORKSHEET 1: MULTIPLES | CLASS 5 MATHEMATICS

Multiple Choice Questions (5)

1. Which of the following is a common multiple of 4 and 6?

    a. 12
    b. 10
    c. 8
    d. 24

2. The LCM of 3 and 5 is:

    a. 8
    b. 15
    c. 10
    d. 20

3. Which method is used to find the LCM of two numbers using their prime factors?

    a. Division Method
    b. Multiplication Table Method
    c. Prime Factorization Method
    d. Subtraction Method

4. The LCM of 9 and 12 is closest to which number?

    a. 24
    b. 27
    c. 36
    d. 45

5. The difference between LCM and HCF of 6 and 8 is:

    a. 14
    b. 16
    c. 18
    d. 22

Fill in the Blanks (5)

1. The lowest common multiple of 8 and 12 is _____.
2. A number that is a multiple of both 7 and 5 is a _____ of 35.
3. To find the LCM by prime factorization, we multiply the highest powers of all _____.
4. The LCM of any two numbers is always _____ or greater than the larger number.
5. LCM is used when arranging things into _____ groups of equal size.

PRACTICE WORKSHEET 1: MULTIPLES | CLASS 5 MATHEMATICS

True or False Questions (5)

1. The LCM of any two numbers is smaller than their HCF.
2. Every number is a multiple of itself.
3. The LCM of 2 and 3 is 6.
4. To find common multiples, we use subtraction repeatedly.
5. The HCF of two numbers can never be larger than their LCM.

Direct Numerical Questions (5)

1. Find the LCM of 10 and 15 using prime factorization.
2. List the first four common multiples of 4 and 5.
3. Calculate the LCM of 14, 28, and 42.
4. A teacher has 24 crayons and 36 markers. Find the LCM to arrange them in the smallest identical groups.
5. What is the difference between the LCM and HCF of 18 and 24?

Word Problems (5)

1. A gardener waters plants every 3 days, and a cleaner visits the garden every 5 days. If both visit on the same day, after how many days will they meet again?
2. Two buses arrive at the same station. One arrives every 12 minutes, and the other every 15 minutes. After how many minutes will they arrive together?
3. Sam has 12 red balloons and 16 blue balloons. He wants to arrange them in identical bunches. What is the smallest number of balloons in each bunch?
4. Ravi cycles every 6 days, and Priya cycles every 8 days. If they start on the same day, when will they cycle together next?
5. The LCM of two numbers is 72, and their HCF is 6. If one of the numbers is 24, find the other number.

Answer Key with Explanations

Multiple Choice Questions

1. a) 12 (Common multiples of 4 and 6 are 12, 24, etc.; the smallest is 12.)
2. b) 15 (Multiples of 3: 3, 6, 9, 12, 15; multiples of 5: 5, 10, 15. LCM is 15.)
3. c) Prime Factorization Method (This involves finding the highest powers of all prime factors.)
4. c) 36 (LCM of 9 and 12 is the smallest number divisible by both: 36.)
5. b) 16 (LCM = 24, HCF = 8. Difference = 24 - 8 = 16.)

Fill in the Blanks

1. 24
2. Multiple
3. Prime Factors
4. Equal to
5. Identical

True or False

1. False (LCM is larger or equal to HCF.)
2. True (Every number is a multiple of itself.)
3. True (LCM of 2 and 3 is 6.)
4. False (We find common multiples using multiplication, not subtraction.)
5. True (HCF is never larger than LCM.)

Direct Numerical Questions

1. Prime factors of 10: 2×5; prime factors of 15: 3×5. LCM = $2\times3\times5=30$.
2. Common multiples of 4 and 5: 20, 40, 60, 80.
3. LCM of 14, 28, and 42 = $2^2\times3\times7=84$.
4. LCM of 24 and 36 = $2^3\times3^2=72$.
5. LCM = 72, HCF = 6. Difference = 72 - 6 = 66.

Word Problems

1. LCM of 3 and 5 = 15 days.
2. LCM of 12 and 15 = 60 minutes.
3. LCM of 12 and 16 = $2^4\times3=48$. Smallest bunch = 48 balloons.
4. LCM of 6 and 8 = $2^3\times3=24$.
5. Using LCM×HCF=Product of numbers, $72\times6=24\times x$, $x=18$.