Common Factors and Common

A. Choose the Correct Answer: 1. Which of the following is a common factor of 18 and 24? a) 3 b) 5 c) 7 d) 13 2. The least common multiple (LCM) of 4 and 5 is: a) 9 b) 10 c) 15 d) 20 3. The numbers 6 and 9 have how many common factors? a) 1 b) 2 c) 3 d) 4 4. If a number is a multiple of both 3 and 4, it must also be a multiple of: a) 6 b) 9 c) 12 d) 15 5. The greatest common factor (GCF) of 36 and 60 is: a) 6 b) 12 c) 18 d) 24 B. Write the Missing Terms to Complete the Sentences: 1. The number 15 is a common factor of 45 and _____. 2. The least number that is a multiple of both 6 and 8 is 3. The highest number that can divide both 20 and 30 without leaving a remainder is called their _____. 4. Two numbers having only 1 as a common factor are called numbers.

5. The smallest common multiple of two numbers is called their _____.

C. Figure out the answers to these questions:

- 1. Find the common factors of 16 and 24.
- 2. List the first five common multiples of 3 and 4.
- 3. Rahul says that the GCF of 14 and 28 is 7. Do you agree? Give reasons.
- 4. Find the LCM of 6, 8, and 12 using listing method.
- 5. Write the prime factorization of 36 and 48 and then find their GCF.

- 6. Two bells ring every 6 minutes and 8 minutes. If they ring together at 10:00 a.m., at what time will they ring together next?
- 7. Identify whether 1 is a factor of every number. Justify your answer.
- 8. Explain how finding the LCM helps in solving problems involving repeated events.

D. Mark each sentence with a True (\checkmark) or False (X):

- 1. 1 is a common factor of all numbers.
- 2. The least common multiple of any two prime numbers is their product.
- 3. The GCF of two consecutive numbers is always greater than 1.
- 4. All multiples of 4 are also multiples of 2.
- 5. Common multiples of two numbers are always greater than both numbers.

E. Challenge yourself with these questions:

- 1. Find the GCF and LCM of 42 and 56.
- 2. Name two numbers whose GCF is 5 and LCM is 60.
- 3. Draw a factor tree for 72 and 90 and circle their common prime factors.
- 4. A boy jumps every 4 seconds and a girl jumps every 6 seconds. After how many seconds will they jump together?
- 5. Which number is a common multiple of 2, 3, and 5 but not of 4?
- 6. Find the GCF of 108 and 144 using the division method.
- 7. Write any two pairs of numbers whose LCM is 30.
- 8. Choose any two numbers less than 20 and find both their common factors and common multiples.