Prime Factorigation

A. Choose the correct answer:

1. What is the prime factorisation of 18?

a) 2 × 9 b) 3 × 6

c) 2 × 3 × 3 d) 9 × 2

2. Which of the following is a prime factor of 30?

a) 4 b) 6

c) 5 d) 10

3. What is the first prime number used to start factorisation of any even number?

a) 3 b) 2

c) 5 d) 1

4. Prime factorisation of 20 is

a) 2 × 2 × 5 b) 4 × 5

c) 2 × 10 d) 5 × 5

5. Which of the following numbers is a prime number?

a) 9 b) 15

c) 7 d) 12

B. Write the Missing Terms to Complete the Sentences:

1. Prime factorisation of 12 is ___ × ___ × ___
2. The first prime number is ___
3. Prime factors of 16 are ___ × ___ × ___ × ___
4. 2 and 3 are the prime factors of ___
5. Prime factorisation is the process of writing a number as a product of ___ numbers.

C. Mark each sentence with a True (✔) or False (✗):

1. Prime factorisation of 8 is 2 × 2 × 2 _____

2. 1 is used in prime factorisation _____
3. Prime factors of 9 are 3 × 3 _____
4. 2 is the only even prime number _____
5. Factor tree helps in finding prime factorisation _____

D. Figure out the answers to these questions:

1. Find the prime factorisation of 36 using division method.
2. Write the prime factorisation of 45 using a factor tree.
3. What are the prime factors of 60?
4. Use prime factorisation to break 28 into prime numbers.
5. Show how to find prime factorisation of 32.

E. Challenge yourself with these questions:

1. Find the prime factors of 100.
2. Make a factor tree for 48 and write its prime factors.
3. Use prime factorisation to find the factors of 72.
4. What is the prime factorisation of 81?
5. Write the prime factorisation of 50 using the division method.