Board –Foundation	Class – 6th	Topic – Prime and Composite Numbers

1. Is 13 prime or composite?

   Sol. 13 has factors 1 and 13. Since it has only two factors, it is a prime number.

2. Is 15 prime or composite?

   Sol. 15 has factors 1,3,5, and 15 . Since it has more than two factors, it is a composite number.

3. Identify the prime numbers in: 2,4,7,9,11.

   Sol. 2 (factors 1,2), 7 (factors 1,7), and 11 (factors 1,11) are prime. 4 (factors 1,2,4) and 9 (factors 1,3,9) are composite. The prime numbers are 2, 7, and 11.

4. Which is not prime: 19,23,51,37 ?

   Sol. 19 (factors 1, 19), 23 (factors 1, 23), and 37 (factors 1, 37) are prime. 51 has factors 1,3,17, and 51 , making it composite. The non-prime number is 51 , a composite number.

5. Is 4 prime or composite?

   Sol. 4 has factors 1,2 , and 4 . With more than two factors, it is a composite number. It's the smallest composite number.

6. Why is 1 neither prime nor composite?

   Sol. Prime numbers have exactly two factors, composite numbers have more than two. 1 has only one factor (1). Therefore, it fits neither definition.

7. Find the factors of 12 and state if it's prime or composite.

   Sol. The factors of 12 are 1,2,3,4,6, and 12 . Since it has more than two factors, it's a composite number.

8. What is the only even prime number?

   Sol. The only even prime number is 2 . Other even numbers are divisible by 2 , making them composite.

9. List composite numbers between 1 and 10.

   Sol. Numbers between 1 and 10 are 2, 3, 4, 5, 6, 7, 8, 9. Primes are 2, 3, 5, 7. Composites have more than two factors. The composite numbers are 4, 6, 8, 9.

10. Is 27 prime or composite? Explain.

    Sol. Factors of 27 include 1 and 27 . Since $2 + 7 = 9$ (divisible by 3), 27 is also divisible by 3. Factors are 1, 3, 9, 27. Having more than two factors makes it a composite number.