

Prime and Composite Numbers

Chapter 5: Prime Time · Topic 1

Key Concept

Interestingly, 2 is the only even prime number — every other even number greater than 2 is composite, since it is always divisible by 2 in addition to 1 and itself. The ancient method called the 'Sieve of Eratosthenes' systematically eliminates composite numbers from a list, leaving only primes — this method involves crossing out multiples of each prime starting from 2, revealing the primes up to a chosen limit.

Quick Revision Notes

- Prime numbers have exactly 2 factors: 1 and itself (e.g., 2, 3, 5, 7).
- Composite numbers have more than 2 factors (e.g., 4, 6, 8, 9).
- 1 is neither prime nor composite.
- 2 is the only even prime number; all other even numbers are composite.

Practice Questions

- 1 List all prime numbers between 1 and 20.
- 2 Explain why 2 is the only even prime number.
- 3 Use the Sieve of Eratosthenes method to find primes up to 30.