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SUMMARY

NCERT Class 6 Maths Chapter 5: Prime Time

Overview

This summary of **NCERT Class 6 Maths Chapter 5: Prime Time** explores common multiples, factors, prime numbers, and their applications through games and problems. Designed for students, teachers, and parents, it covers prime factorization, co-prime numbers, and divisibility rules, ideal for exam preparation and enhancing number sense. Visit GovtJobsNet.com for more educational resources.

Key Concepts

· **Common Multiples and Factors**

 – Common multiples are numbers divisible by two or more numbers (e.g., 10, 20 for 2 and 5).

 – Common factors are numbers that divide two or more numbers (e.g., 1, 2 for 4 and 6).

 – Example: In a game, "idli-vada" is said at common multiples of two numbers.

· **Prime Numbers**

 – Prime numbers have exactly two factors: 1 and itself (e.g., 2, 3, 5, 7).

 – Composite numbers have more than two factors (e.g., 4, 6, 8).

 – 1 is neither prime nor composite.

 – Sieve of Eratosthenes identifies primes by marking composites.

· **Twin Primes and Co-Prime Numbers**

 – Twin primes differ by 2 (e.g., 3 and 5, 17 and 19).

 – Co-prime numbers have no common factors except 1 (e.g., 4 and 9).

 – Example: In a treasure game, jump sizes must match co-prime numbers to land on treasures.

· **Prime Factorization**

 – Every composite number can be expressed as a unique product of primes (e.g., 56 = 2 Œ 2 Œ 2 Œ 7).

 – Order of factors doesnt matter in prime factorization.

 – Example: 72 = 2 Œ 2 Œ 2 Œ 3 Œ 3.

- **Divisibility Rules**
  - Divisibility by 2: Last digit is even (e.g., 682).
  - Divisibility by 4: Last two digits form a number divisible by 4 (e.g., 124).
  - Divisibility by 8: Last three digits form a number divisible by 8.
  - Example: Check 8560 for divisibility by 2 (ends in 0, so yes).
- **Applications and Games**
  - Games like "Jump Jack" use multiples and factors to find treasures.
  - Example: Jumpy needs a jump size (e.g., 7) to land on multiples of treasure positions.

Practice Questions

- Find the 10th common multiple of 3 and 4 up to 90.
- List all prime numbers between 20 and 30.
- Identify twin primes between 1 and 20.
- Perform prime factorization of 84.
- Check if 136 is divisible by 4 using the last two digits.
- In the "Jump Jack" game, find a jump size to land on treasures at 12 and 18.

Why This Chapter Matters

Understanding prime numbers, factors, and divisibility rules strengthens foundational math skills, aiding in problem-solving and number theory. These concepts are crucial for algebra and real-world applications like coding and cryptography. For more study materials and exam tips, explore GovtJobsNet.com.

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