

Divisibility

Chapter 8: Divisibility · Topic 1

Key Concept

A number is divisible by 2 if its last digit is even (0,2,4,6,8), and divisible by 5 if it ends in 0 or 5.

A number is divisible by 3 if the sum of its digits is divisible by 3, and divisible by 9 if the digit sum is divisible by 9.

A number is divisible by 10 if it ends in 0, and divisible by 4 if its last two digits form a number divisible by 4.

Understanding divisibility rules helps us quickly simplify fractions, find factors, and solve problems without long division.

Quick Revision Notes

- Divisible by 2: last digit even.
- Divisible by 5: ends in 0 or 5.
- Divisible by 3: digit sum divisible by 3.
- Divisible by 9: digit sum divisible by 9.
- Divisible by 10: ends in 0.
- Divisible by 4: last two digits divisible by 4.
- Rules avoid long division.
- They help simplify fractions, find factors.

Practice Questions

- 1 Check if 156 is divisible by 2, 3, and 5.
- 2 Check if 245 is divisible by 5.
- 3 Check if 729 is divisible by 9.
- 4 Find a number divisible by both 3 and 5.
- 5 Use divisibility rules to simplify a fraction.
- 6 Explain the divisibility rule for 4.