

Factors, Multiples, HCF and LCM

Chapter 3: Factors, Multiples, HCF and LCM · Topic 1

Key Concept

To find the HCF of two numbers, we list their factors and find the largest factor common to both.

For example, the factors of 12 are 1,2,3,4,6,12 and factors of 18 are 1,2,3,6,9,18, so their HCF is 6.

To find the LCM, we list multiples of both numbers and find the smallest multiple common to both.

HCF and LCM are useful for simplifying fractions, solving problems with grouping, and finding common time intervals.

Quick Revision Notes

- HCF is the largest common factor of two numbers.
- LCM is the smallest common multiple of two numbers.
- Factors of 12: 1,2,3,4,6,12.
- Factors of 18: 1,2,3,6,9,18.
- HCF of 12 and 18 is 6.
- LCM is found using common multiples.
- HCF and LCM help simplify fractions.
- They help solve grouping and time interval problems.

Practice Questions

- 1 Find the HCF of 8 and 12.
- 2 Find the LCM of 3 and 5.
- 3 List the factors of 20.
- 4 List the first five multiples of 6.
- 5 Discuss how HCF helps simplify a fraction.
- 6 Solve a problem using LCM.