Least Common Multiple (LCM)

Mathematics - Primary

6/15/2025

Title

Let's Play Multiple: Exploring the Least Common Multiple

Conclusion

You've unlocked the power of LCM to streamline repetitive tasks and synchronize periodic events. Practice finding LCM for everyday scenarios and notice how math makes life smoother! Think—where else could you apply LCM to simplify your routines?

Introduction

Have you ever tried to plan a snack rotation for a party? That's exactly when you would use the Least Common Multiple (LCM). In this lesson, we'll learn how to find the LCM of two or more numbers and see how it helps us schedule, count cycles, and solve real-life problems.

Competency Focus

By the end of this lesson, you'll master identifying multiples, prime factorization, and be able to calculate the LCM of any set of numbers—essential skills for arithmetic and problem-solving.

Core Explanation

The LCM of two numbers is the smallest number that is a multiple of both numbers. To find it, list the first few multiples of each number and identify the smallest value they have in common. For example, to find LCM(4, 6), list the multiples: 4, 8, 12, 16… and 6, 12… The common multiple is 12, so LCM(4, 6) = 12.To find LCM of more than two numbers, use the prime factorization method: express each number as a product of primes, then the LCM is the product of the highest powers of all primes involved.Example:LCM(6, 8, 15)Prime factorization: $6 = 2 \times 3$, $8 = 2^3$, $15 = 3 \times 5$LCM = $2^3 \times 3 \times 5 = 120$.Understanding LCM helps us schedule chores, plan games, and even align musical beats!

Practical Examples

Scheduling a snack delivery for every 6 days and drinks every 8 days. LCM(6, 8) = 24; so, repeat every 24 days.

Animating a flashing light that blinks every 3 or 4 seconds. LCM(3, 4) = 12; it syncs every 12 seconds.

Ordering supplies for crafts after every 5, 7, and 9 days. LCM(5, 7, 9) = 315 to minimize orders.