

This learning guide focuses on the "Fractions" section from the app, covering the five example questions provided. These examples, combined with the general marking principles from the 2024 National 5 Applications of Mathematics exam papers, will solidify your understanding of fractions and their operations, preparing you for success in your NAT 5 Applications of Mathematics course.

**Building a strong foundation in fractions involves understanding their basic concepts and operations.** The first three levels in the document cover essential skills like adding fractions with the same denominator, converting between improper fractions and mixed numbers, and finding common denominators to add fractions with different denominators.

**Remember, you can only add or subtract fractions if they share the same denominator.** Practise finding the least common multiple (LCM) to efficiently convert fractions to a common denominator.

Levels 4 and 5 introduce multiplication and division of fractions, operations often perceived as more challenging. **When multiplying fractions, multiply the numerators and the denominators separately.** Simplifying the resulting fraction to its lowest terms is crucial. **Dividing fractions involves multiplying the first fraction by the reciprocal of the second fraction.** Remember to "flip" the second fraction before multiplying.

**The exam paper marking instructions provide valuable insights into common errors students make when working with fractions.** For instance, some students incorrectly add the numerators and denominators directly when adding fractions with different denominators. By familiarizing yourself with these common pitfalls, you can avoid making similar mistakes and ensure accurate calculations.

**Remember to always simplify your answers to their lowest terms** unless the question specifies otherwise. This demonstrates a thorough understanding of fractions and their manipulation. Moreover, show your working clearly to gain full marks even if a minor calculation error occurs. By demonstrating a clear understanding of the process and applying the correct methods, you can maximize your chances of achieving a high score.



Question

Working

Answer

1

Calculate  $\frac{1}{4} + \frac{2}{4}$

2

Convert  $\frac{7}{3}$  to a mixed number

3

Add  $\frac{2}{3} + \frac{1}{6}$

4

Calculate  $\frac{2}{3} \times \frac{3}{4}$

5

Divide  $\frac{5}{6} \div \frac{2}{3}$

