



3 Years

7 Years

11 Years

16 Years

Mathematical Foundations



- 1) Share things out between people by counting in 1's
- 2) work out whether an amount can be shared out fairly or not

- 3) Double and halve numbers
- 4) Understand what $\frac{1}{2}$ and $\frac{1}{4}$ mean

Test your Understanding

- 1) a) Share out these 10 buttons between me and you so it is fair. How much do we have each?
b) Share out these 12 buttons between 4 people
- 2) a) Which of these numbers of sweets can be shared out fairly between 2 people?
4,5,6,7,8,9,10
- 3) What is double 12? What is half of 16
- 4) Shade $\frac{1}{2}$ of this shape. Shade $\frac{1}{4}$ of this shape

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- 5) a) Find $\frac{1}{2}$ of 32 b) Find $\frac{1}{4}$ of 28

Key Skills and Concepts



- 1) Share out or cut an object fairly between a set number of people
- 2) Write down the fraction for a shaded diagram

- 3) Understand equivalent fractions
- 4) Simplify fractions and convert to mixed numbers
- 5) Recognise common conversions to percentages and decimals
- 6) Find fractions of amounts
- 7) Add and subtract simple fractions

Test your Understanding

- 1) Cut this rectangle into thirds
- 2) What fraction is shaded?
- 3) a) $\frac{1}{6} = \frac{\square}{12}$ b) $\frac{5}{7} = \frac{20}{\square}$ c) $\frac{27}{\square} = \frac{9}{20}$
- 4) a) simplify $\frac{18}{30}$ b) Express $\frac{17}{5}$ as a mixed number
- 5) Write as %'s and decimals: $\frac{1}{2}$ $\frac{1}{4}$ $\frac{3}{4}$ $\frac{1}{10}$ $\frac{1}{100}$
- 6) a) $\frac{1}{8}$ of 24 b) $\frac{3}{5}$ of 65
- 7) a) $\frac{1}{6} + \frac{5}{12}$ b) $\frac{3}{4} + \frac{5}{6}$ c) $\frac{6}{7} - \frac{3}{5}$

Optimise GCSE Performance



- 1) Use calculator methods to find fractions of amounts
- 2) Use calculator methods to convert fractions, decimals and percentages

- 3) Add and subtract mixed numbers
- 4) Multiply and divide fractions and mixed numbers
- 5) Solve real life worded problems involving fractions
- 6) Use the bar model to solve reverse fraction problems

Test your Understanding

- 1) a) $\frac{5}{6}$ of £3423 b) Decrease £3450 by $\frac{1}{3}$
- 2) a) Write $\frac{7}{8}$ as a decimal
b) Jim got 24 out of 30. What % did he get?
- 3) a) $2\frac{1}{6} + 3\frac{2}{3}$ b) $2\frac{1}{4} + 1\frac{5}{7}$
- 4) a) $\frac{5}{6} \times \frac{7}{10}$ b) $\frac{7}{12} \div \frac{3}{4}$ c) $2\frac{4}{5} \times 1\frac{5}{6}$
- 5) Sara buys a box of 200 hats for £500. She wants to sell them for $\frac{1}{5}$ profit. How much should she sell each hat for?
- 6) $\frac{3}{5}$ of a number is 24. What is the whole number?