



11+ MATHEMATICS

Fractions Revision Sheet

Key facts · Method · Worked example · Quick check

Fractions appear in almost every 11+ maths paper, on their own and inside word problems.

Key facts

Top and bottom	The bottom number (denominator) is how many equal parts make a whole. The top number (numerator) is how many parts you have.
Equivalent fractions	Multiply or divide the top and bottom by the same number: $\frac{3}{4} = \frac{6}{8} = \frac{9}{12}$.
Simplest form	Divide the top and bottom by their highest common factor: $\frac{18}{24} \rightarrow \div 6 \rightarrow \frac{3}{4}$.
Adding and subtracting	Make the denominators the same first, then add or subtract the tops only.
Fraction of an amount	Divide by the bottom, then multiply by the top.

Method: finding a fraction of an amount

- 1 Divide the amount by the denominator to find one part.
- 2 Multiply by the numerator to find the parts you need.
- 3 Check the answer is sensible: a fraction less than 1 gives an answer smaller than the amount.

Common mistakes

Watch out: Adding denominators: $\frac{1}{2} + \frac{1}{3}$ is not $\frac{2}{5}$. Use sixths: $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$.

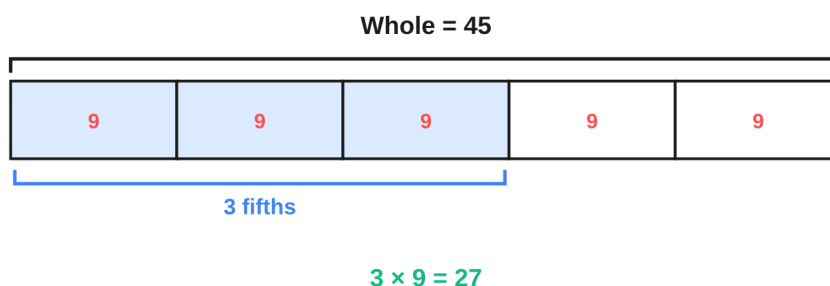
Watch out: Multiplying by the bottom and dividing by the top, the wrong way round.

Watch out: Leaving an answer like $\frac{13}{12}$ without changing it to $1 \frac{1}{12}$.

Worked example

What is $\frac{3}{5}$ of 45?

Step	What to do	Working
1	Find one fifth	$45 \div 5 = 9$
2	Multiply by 3	$9 \times 3 = 27$
3	Check	27 is less than 45 ✓
✓	Answer	27



Quick check

	Question	Your answer
1	What is $\frac{2}{3}$ of 36?	
2	Calculate $\frac{1}{2} + \frac{1}{3}$	
3	Write $\frac{18}{24}$ in its simplest form	

Answers: 1) 24 2) $\frac{5}{6}$ 3) $\frac{3}{4}$

Put your fractions skills to the test.

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