

Slide by slide delivery map

Pearson Edexcel GCSE Mathematics 1MA1 • L006

21 slides • 60 minutes • Teacher use only • Lesson resources

REACH FOR THE STAR | GCSE MATHEMATICS

01 Equivalent fractions 1 min Recall

Explain equivalence, simplify fractions, convert mixed and improper forms and compare fractions exactly.

02 The goal and the evidence 1 min Recall

L005 factors and HCF; multiplication/division; a fraction represents equal parts of one whole.

03 Starting-point diagnostic 5 min Recall

If learners compare only numerators, use equal-length fraction strips. If they add to both entries, test $\frac{1}{2}$ versus $\frac{2}{3}$. If mixed conversion fails, write $2 = \frac{8}{4}$ before adding $\frac{3}{4}$. Recheck $\frac{9}{15} = \frac{3}{5}$ and $1\frac{2}{5} = \frac{7}{5}$.

04 Equivalent fractions paired with slide 5 Discover

$\frac{12}{20}$. Each fifth is split into four twentieths.

05 One whole, different partitions 2 min Discover

Equal-length bars show $\frac{2}{3}$ and $\frac{4}{6}$. Each third is split into two sixths. Shading covers the same amount of the same whole.

Delivery continued

06 Simplifying fractions 3 min Discover

$\frac{3}{5}$. Divide numerator and denominator by 5.

07 Mixed to improper 4 min Discover

$\frac{17}{5}$. Three wholes contain fifteen fifths.

08 Compare equal units 4 min Discover

$2\frac{4}{5}$; $\frac{3}{4}$ is larger because $\frac{6}{8} > \frac{5}{8}$. Remainder stays over the original denominator.

09 SAME VALUE, SAME WHOLE 2 min Discover

Simplify by a common factor, preferably the HCF. For a mixed number, multiply wholes by the denominator, then add the numerator. For comparison, use equal denominators and compare numerators; keep the same whole.

10 Diagnostic pause 3 min Apply

Which equals $\frac{2}{3}$? A $\frac{3}{4}$, B $\frac{4}{6}$, C $\frac{2}{6}$. B; A adds one to each, C changes only the denominator.

Delivery continued

11 Careful variation 4 min Apply

$\frac{3}{6}$; $\frac{5}{10}$; both simplify to $\frac{1}{2}$. Equivalent forms can look different.

12 Independent application 5 min Apply

$\frac{17}{6}$; $4\frac{3}{4}$; $\frac{2}{3} = \frac{8}{12} < \frac{9}{12} = \frac{3}{4}$. Common units make the comparison meaningful.

13 Use the method in context 4 min Apply

Yes: $1\frac{3}{4} = \frac{4}{4} + \frac{3}{4} = \frac{7}{4}$ litres. Same value and units.

14 Intentional practice feedback 2 min Apply

Optional check: enter $2 \div 3$ and $4 \div 6$. Matching displays support the equivalence, but the exact fraction argument explains why. Do not replace exact fractions with rounded decimals.

15 A claim to test 4 min Challenge

$\frac{3}{5} = \frac{18}{30}$; $\frac{4}{6} = \frac{20}{30}$, so not equal. Adding changes the ratio of parts.

Delivery continued

16 Deepen the reasoning 4 min Challenge

For example $7/12$: $1/2 = 6/12 < 7/12 < 8/12 = 2/3$. Other valid fractions with exact justification accepted.

17 Retrieval without notes 4 min Prove

Answers: $2/3$, $9/4$, $2\frac{1}{5}$, 15, 6, 12. Completion is not mastery.

18 Independent exit evidence 2 min Prove

$3/4$ B1; divide both entries by 7 B1. Teacher checks explanation.

19 Independent exit evidence 3 min Prove

$15/18$ and $14/18$ B1; $5/6$ is larger B1. Equivalent correct comparison accepted.

20 Feedback and next steps 2 min Prove

If learners compare only numerators, use equal-length fraction strips. If they add to both entries, test $1/2$ versus $2/3$. If mixed conversion fails, write $2 = 8/4$ before adding $3/4$. Recheck $9/15 = 3/5$ and $1\frac{2}{5} = 7/5$.

Delivery continued

21 Before the next lesson 1 min Recall

Adding fractions combines counts of equal-sized parts. Rename unlike fractions using a common denominator first. We will also interpret multiplication as a fraction of an amount and division as how many groups fit.

Recall & Review: feedback and extension integration

Lesson L006: Fractions and equivalent forms

Objective: Explain equivalence, simplify fractions, convert mixed and improper forms and compare fractions exactly.

Timing for a 60-minute lesson

0-7 Connect & Check; 7-14 Share; 14-25 Present/model; 25-44 Apply route choice/practice; 44-52 independent exam-style check; 52-60 Recall & Review, WWW/EBI and next step.

Recall & Review evidence

At the end of the lesson, solve a fresh question without prompts, explain one check, correct one error and record the next practice step.

What Went Well (WWW)

I selected an efficient numerical method, showed the key steps clearly and checked the sign, size or accuracy of my answer.

Even Better If (EBI)

I will make the place-value, sign or operation decision explicit and use estimation or an inverse calculation to check a fresh question.

Integrated stretch and deep challenge

Stretch: Simplify $42/70$ and give two different fractions equivalent to it.

Deep challenge: A fraction is equivalent to $5/8$ and its numerator is 35. Find its denominator and justify.

Teacher use

Use the What Went Well (WWW) and Even Better If (EBI) prompts to write mathematics-specific feedback linked to the objective. Do not accept generic praise: identify the method, representation, reasoning or checking step that improved, then set a fresh next-step question.

Assessment evidence to inspect: Check the formative mini-test and independent workbook response against the objective. Use the teacher answers or mark guidance; group errors for reteaching. Non-calculator core; optional calculator check.