

Slide by slide delivery map

Pearson Edexcel GCSE Mathematics 1MA1 • L013

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

REACH FOR THE STAR | GCSE MATHEMATICS

01 Ratio and sharing 1 min Recall

Interpret ratios, simplify them and share quantities using equal parts while distinguishing part-to-part from part-to-whole.

02 The goal and the evidence 1 min Recall

L005 HCF; L006 equivalent fractions; L010 fractions of quantities and recovering wholes.

03 Starting-point diagnostic 5 min Recall

If red is called $\frac{2}{3}$ of the whole for 2:3, draw five equal parts. If learners divide the total by only one ratio term, label all parts. If units differ, convert first. Recheck £40 shared 3:5 gives £15 and £25.

04 Equivalent ratios paired with slide 5 Discover

3:5. Divide both terms by 5.

05 Two red parts, three blue parts 2 min Discover

Five equal parts make the total: two red and three blue. Red:blue=2:3 while red:total=2:5. Colours are also labelled.

Delivery continued

06 Part and whole 3 min Discover

$\frac{3}{7}$ and $\frac{4}{7}$. Seven parts make the whole.

07 Sharing a total 4 min Discover

£24 and £32. Seven parts at £8 each.

08 One share is known 4 min Discover

A=15; total=50. 35 corresponds to seven parts.

09 LABEL WHAT THE GIVEN AMOUNT MEANS 2 min Discover

Keep the named order and convert quantities to matching units before simplifying. To share a total, add ratio parts, divide the total by that sum, then multiply for each share. If one share or the difference is given, match it to its number of parts first.

10 Diagnostic pause 3 min Apply

Red:blue=2:3. Red fraction of the total? A $\frac{2}{3}$, B $\frac{2}{5}$, C $\frac{3}{5}$. B; five parts form the whole.

Delivery continued

11 Careful variation 4 min Apply

All 2:3. The relative amounts, not the absolute sizes.

12 Independent application 5 min Apply

45 and 27; $B=35$. The second problem gives a share, not the total.

13 Use the method in context 4 min Apply

150 ml concentrate and 600 ml water. Five parts at 150 ml; sum 750 ml.

14 Intentional practice feedback 2 min Apply

Optional check after A3: $750 \div 5 \times 1 = 150$; $750 \div 5 \times 4 = 600$. Check $150 + 600 = 750$ and $150:600 = 1:4$. A correct sum alone does not establish the ratio.

15 A claim to test 4 min Challenge

$A=8$ is correct. Total=20, so A is $\frac{2}{5}$ of the total. $\frac{2}{3}$ compares A with B, not A with $A+B$.

Delivery continued

16 Deepen the reasoning 4 min Challenge

Difference is 2 parts=14; one part=7; A=21, B=35. The given difference is not the total.

17 Retrieval without notes 4 min Prove

Answers: 8, 15, 3, $\frac{2}{5}$, 35, 28. Completion is not mastery.

18 Independent exit evidence 2 min Prove

One part £9 M1; £18 and £45 A1 (both). Check sum and ratio.

19 Independent exit evidence 3 min Prove

$\frac{3}{8}$ B1; total has $3+5=8$ equal parts B1. Part-to-whole differs from part-to-part.

20 Feedback and next steps 2 min Prove

If red is called $\frac{2}{3}$ of the whole for 2:3, draw five equal parts. If learners divide the total by only one ratio term, label all parts. If units differ, convert first. Recheck £40 shared 3:5 gives £15 and £25.

Delivery continued

21 Before the next lesson 1 min Recall

In direct proportion, multiplying one quantity by a factor multiplies the other by the same factor.
A scale drawing uses one constant length ratio. Match units before writing a scale such as 1:500.

Recall & Review: feedback and extension integration

Source-integrated WWW/EBI and extension page

Lesson L013: Ratio and sharing

Objective: Interpret ratios, simplify them and share quantities using equal parts while distinguishing part-to-part from part-to-whole.

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 a check, correct one error and record the next practice step.

What Went Well (WWW)

I selected a suitable representation or multiplier and kept the reference amount clear.

Even Better If (EBI)

I will state the whole/part, show each operation and check that the size of my answer is reasonable.

Integrated stretch and deep challenge

Stretch: Split £126 in ratio 2:3:4 and check the parts total.

Deep challenge: A sum is split $A:B=3:5$ and $B:C=2:3$. Find $A:B:C$ in whole numbers.

Teacher use

Use the WWW/EBI prompts to write mathematics-specific feedback linked to the objective. Do not accept generic praise; feedback should 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.