

Number checkpoint

Pearson Edexcel GCSE Mathematics 1MA1

Foundation and Higher • L012

Number and proportion • Review v0.9

The goal and the evidence

Connect & Check → Share → Present → Apply → Recall & Review

Show what you can recall and explain independently.

Diagnose an error and verify a fresh repair.

Starting-point diagnostic

R1–R3 • Attempt without notes

$-12 - (-7)$; $1/3 + 1/4$

HCF(18,30); 0.35 as fraction

15% of 80; original from £64 at 20% off

Repair the unit

Wrong: $\frac{1}{2} + \frac{1}{3} = \frac{2}{5}$

Repair: $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$

Your turn: $\frac{2}{3} + \frac{1}{6}$

Repair the scale

$$15\% \text{ of } 80 = 0.15 \times 80 = 12$$

Your turn: 12.5% of 48

Use the fraction $\frac{1}{8}$ as a check.

Repair the reference whole

£64 at 20% off: original $64 \div 0.8$

Your turn: £54 at 25% off

The final amount is 75%, not 100%.

Check forwards

$$\text{£}80 \times 0.8 = \text{£}64$$

Check your original for £54 at 25% off.

Does the calculation reproduce £54?

USE EVIDENCE TO CHOOSE THE REPAIR

Units, operation, scale or reference whole?

Test independently after the support is removed.

Diagnostic pause

Choose and explain before moving on.

Original from £48 at 20% off?

A 48×1.2 B $48 \div 0.8$ C 48×0.8

Careful variation

A1 • Explain your decisions

Fresh repair: calculate $\frac{3}{4} + \frac{1}{6}$, then $(\frac{3}{4}) \div (\frac{1}{6})$.
Explain the different methods.

Show your method and check the result.

Independent application

A2 • Without prompts

Find 35% of 120; simplify $18/30$; find LCM of 6 and 15.

Show your method and check the result.

Use the method in context

A3 • Explain your decisions

A £90 jacket is reduced by 20%, then a £6 voucher is deducted. Find the final price. Would subtracting the voucher first give the same answer?

Show your method and check the result.

Intentional practice feedback

Read after attempting A3

£66; no, voucher first gives £67.20.

Check the interpretation as well as the arithmetic.

A claim to test

C1 • Explain your decisions

A learner scores 6/6 on a repeated quiz immediately after seeing answers. What additional mathematical evidence is needed? Give a fresh test question.

Show your method and check the result.

Deepen the reasoning

C2 • Explain your decisions

A £100 price rises 25%, then falls 20%. Does it return to £100? Explain, and compare a 25% fall after the rise.

Show your method and check the result.

Retrieval without notes

Q1–Q6 • Use full prompts in your workbook

Q1–Q3

$$-10 - (-6)$$

$$\text{HCF}(20, 30)$$

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

Q4–Q6

0.45 → fraction

15% of 80

20% off gives 64:
original?

Independent exit evidence

P1 • 2 marks • Without notes

Calculate $\frac{5}{6} - \frac{1}{4}$, showing a common denominator. [2]

Show working. Teacher review follows.

Independent exit evidence

P2 • 2 marks • Without notes

£81 is the price after a 10% reduction. Find the original and check. [2]

Show working. Teacher review follows.

Feedback and next steps

P3 • Completion is not mastery

Name one decision you can now explain.

Choose a fresh question and a delayed check.

Before the next lesson

L013: Ratio and sharing

Complete F1 tomorrow without notes.

Read and attempt F2; bring one question.

Optional stretch

Solve $\frac{3}{5}$ of $x=42$ and $0.2x=18$.

Show a method. Explain a check or counterexample.

Optional deep challenge

Diagnose why 50% increase followed by 50% decrease does not restore the start.

Show a method. Explain a check or counterexample.

L012 Recall & Review



Number checkpoint and feedback

Fresh evidence: prove the objective

Solve a new question without prompts. Explain one check, then correct one error in your working.

Objective: Demonstrate cumulative number understanding, diagnose the cause of an error and verify a repair independently.

Write the next practice step before you leave. It must test the method again, not simply copy today's example.

Feedback language

Use the full phrases before the abbreviations.

What Went Well (WWW)

I chose an appropriate method and produced clear evidence against the lesson objective.

Point to the method, representation, reasoning or check that improved.

Even Better If (EBI)

I will show the missing working step, correct one misconception and test the method on a fresh question.

Set one precise next-step action and test it on a fresh question.

Extension route



Choose this route only after the core evidence is secure.

Stretch

Solve $\frac{3}{5}$ of $x=42$ and $0.2x=18$.

Deep challenge

Diagnose why 50% increase followed by 50% decrease does not restore the start.

Explain your reasoning clearly enough that another learner could check it.