

Your GCSE maths revision check

Find a focused starting point for your next week of revision.

20 MINUTES

10 QUESTIONS

20 MARKS

Student name

Date

- 1 **Try it:** spend 20 minutes on Questions 1–10, pages 2–4. Work without a calculator and show your steps.
- 2 **Check it:** use the worked answers on pages 5–6 after you finish.
- 3 **Plan it:** choose your next steps with the topic tracker and one-week planner on pages 7–8.
- 4 **Practise it:** try the two sample revision cards on pages 9–10.

PRINT OR TYPE

On screen: use a PDF reader that supports forms. Type in the boxes, save a copy and check the saved answers before closing.

On paper: print A4 pages at 100%. The quiz and planner work in black and white. Card printing instructions are on page 9.

This short check samples ten Foundation skills. It is not a full GCSE assessment and does not predict a grade. Use it to choose a useful next revision task.

Original questions, worked answers and revision cards by Progress Tutoring.

A free resource for self-study and classroom practice. Diagrams are not drawn to scale.

Your check / 1 of 3

No calculator. Show your working. Each question is worth 2 marks; [1] means one mark for that part.

01**2 marks**

- (a) Write 0.45 as a fraction in its simplest form. [1]
(b) Find $\frac{2}{3}$ of 54. [1]

Working and answer

02**2 marks**

- (a) Round 0.008764 to 2 significant figures. [1]
(b) Write 630 000 in standard form. [1]

Working and answer

03**2 marks**

Sam and Alex share £96 in the ratio **3 : 5**.
How much does each person receive? Show your working.

Working and answer

04**2 marks**

A jacket costs £80. It is reduced by **12.5%**.
Find the sale price. Show your working.

Working and answer

Your check / 2 of 3

No calculator. Show your working. Each question is worth 2 marks; [1] means one mark for that part.

05**2 marks**

- (a) Expand $5(x + 2)$. [1]
(b) Factorise $6x + 18$ fully. [1]

Working and answer

06**2 marks**

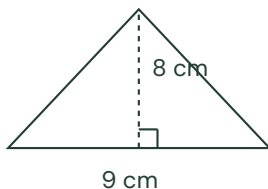
Solve the equation below.
Show your working.

$$3x + 7 = 25$$

Working and answer

07**2 marks**

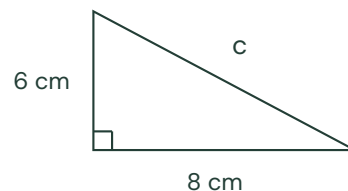
A triangle has base **9 cm** and perpendicular height **8 cm**.
Find its area in cm^2 .



Working and answer

08**2 marks**

A right-angled triangle has perpendicular sides **6 cm** and **8 cm**. Find its hypotenuse.
Use $a^2 + b^2 = c^2$.



Working and answer

Your check / 3 of 3

Finish Questions 9 and 10 before turning to the answers. Use exact fractions where appropriate.

09
2 marks

The table shows books read last month by **20 pupils**.

Calculate the mean number of books.

Books	0	1	2	3
Pupils	2	6	8	4

Working and answer

10
2 marks

A bag has **4 red, 5 blue and 3 yellow** counters.

(a) Find $P(\text{not blue})$. **[1]**

(b) A random counter is chosen and replaced for each of 60 selections. How many blue counters would you expect? **[1]**

Working and answer

STOP YOUR TIMER / QUICK REFLECTION

Time taken (minutes)

A question I want to revisit

What made that question difficult?

Now make the check useful.

Mark your work using pages 5–6. Then choose your traffic lights on page 7 and two priorities for your week. A mistake is a starting point for practice.

Worked answers / 1 of 2

Give yourself up to 2 marks per question. A completely correct answer earns both marks. Use the method guidance for partial credit.

01 / Fractions

(a) $0.45 = 45/100 = 9/20$.

(b) $54 \div 3 \times 2 = 36$.

Marks: 1 mark for $9/20$; 1 mark for 36.

Remember: To find $2/3$ of an amount, divide by 3 and multiply by 2.

02 / Rounding and standard form

(a) The first significant digit is 8. The next digit, 7, rounds up because it is followed by 6: **0.0088**.

(b) 6.3×10^5 .

Marks: 1 mark for 0.0088; 1 mark for 6.3×10^5 .

Remember: Leading zeros do not count as significant figures. In standard form the first number is at least 1 and less than 10.

03 / Sharing a ratio

Total parts = $3 + 5 = 8$.

One part = $\pounds 96 \div 8 = \pounds 12$.

Sam: £36. Alex: £60.

Marks: 1 mark for a valid sharing method, such as $\pounds 12$ per part. 1 mark for both correct amounts.

Remember: Divide by the total number of parts, not by 3 or 5. Check that the shares add to $\pounds 96$.

04 / Percentage decrease

$12.5\% = 1/8$.

Discount = $\pounds 80 \div 8 = \pounds 10$.

Sale price = $\pounds 80 - \pounds 10 = \pounds 70$.

Marks: 1 mark for a valid method, such as the $\pounds 10$ discount or 80×0.875 . 1 mark for $\pounds 70$.

Remember: $\pounds 10$ is the discount. The question asks for the price after the discount.

05 / Brackets and factorising

(a) $5 \times x + 5 \times 2 = 5x + 10$.

(b) The greatest common factor is 6, giving $6(x + 3)$.

Marks: 1 mark for $5x + 10$; 1 mark for $6(x + 3)$.

Remember: Expanding multiplies every term in the bracket. For full factorisation, take out the greatest common factor.

Worked answers / 2 of 2

Give yourself up to 2 marks per question. A completely correct answer earns both marks. Use the method guidance for partial credit.

06 / Linear equations

Subtract 7: $3x = 18$.

Divide by 3: $x = 6$.

Check: $3 \times 6 + 7 = 25$.

Marks: 1 mark for a correct rearrangement such as $3x = 18$. 1 mark for $x = 6$.

Remember: Apply the same operation to both sides. Reverse addition before reversing multiplication.

07 / Triangle area

Area = $(1/2) \times \text{base} \times \text{perpendicular height}$.

Area = $(1/2) \times 9 \times 8 = 36 \text{ cm}^2$.

Marks: 1 mark for a correct area method. 1 mark for 36 cm^2 .

Remember: A triangle is half the area of the corresponding rectangle. Use the perpendicular height.

08 / Pythagoras

$c^2 = 6^2 + 8^2 = 36 + 64 = 100$.

$c = \sqrt{100} = 10 \text{ cm}$.

Marks: 1 mark for using $6^2 + 8^2$. 1 mark for the hypotenuse 10 cm.

Remember: 100 is the square of the length. Take the square root to find the length.

09 / Mean from a frequency table

Total books = $0 \times 2 + 1 \times 6 + 2 \times 8 + 3 \times 4 = 34$.

Mean = $34 \div 20 = 1.7 \text{ books}$.

Marks: 1 mark for the correct weighted total, 34, or the calculation $34 \div 20$. 1 mark for 1.7.

Remember: Divide by the number of pupils, 20, not by the four categories. A mean need not be a whole number.

10 / Probability and expectation

(a) Total = 12. Not blue = 7, so **$P(\text{not blue}) = 7/12$** .

(b) Expected blue = $(5/12) \times 60 = 25$.

Marks: 1 mark for $7/12$; 1 mark for 25.

Remember: Expected frequency is a prediction, not a guaranteed count. Keep the probability of blue separate from not blue.

Choose your next revision step

Mark the quiz first, then choose a traffic light for each skill. Use your working and confidence as well as the mark.

● **R / need help**

I need someone to explain it.

● **A / more practice**

I can start, but need a prompt.

● **G / confident**

I can solve it and explain why.

QUESTION / SKILL	MARK / 2	MY TRAFFIC LIGHT
01 Fractions		Choose
02 Rounding and standard form		Choose
03 Sharing a ratio		Choose
04 Percentage decrease		Choose
05 Brackets and factorising		Choose
06 Linear equations		Choose
07 Triangle area		Choose
08 Pythagoras		Choose
09 Mean from a frequency table		Choose
10 Probability and expectation		Choose

MY TOTAL

/ 20

Priority 1 / one specific skill

Priority 2 / one specific skill

Start with a red skill. If there are no reds, choose an amber skill. If all are green, try a fuller Foundation paper or a different topic. This score is not a GCSE grade.

A small plan for the next 7 days

Start on any day. Aim for 10–15 focused minutes each day. Use your two priorities from page 7; this is a flexible plan, not a deadline.

My week starts

DAY / SUGGESTED FOCUS	MY TASK OR NOTES	DONE
Day 1 / Mark and choose Mark the quiz. Choose two specific priorities from your tracker.		☐
Day 2 / Priority 1 / understand Study a worked example, then explain each step without looking.		☐
Day 3 / Priority 1 / practise Try a few similar questions from classwork or a teacher-set exercise. Check and correct them.		☐
Day 4 / Priority 2 / understand Study the method for your second priority, then explain an example in your own words.		☐
Day 5 / Priority 2 / practise Practise similar questions. Use a sample card if it matches your priority.		☐
Day 6 / Mix and retrieve Try both sample cards with their answers covered. Revisit a missed quiz question without notes.		☐
Day 7 / Review and repeat Compare your working with your first attempt. Choose what to practise next week.		☐

If you get stuck: note the exact step that needs explaining and take it to your teacher or tutor. Repeating the same answer from memory is different from understanding the method.

Two cards to try / questions

On screen, attempt each card before opening its answer. To print cards, print pages 9–10 double-sided at 100%, flip on the long edge, then cut around the card borders.



F01 / QUESTION

FOUNDATION / NO CALCULATOR

Percentage decrease

A sports bag costs £96. It is reduced by 25%. What is the sale price?

My working and answer

Check F01 answer on page 10



F02 / QUESTION

FOUNDATION / NO CALCULATOR

Factorising fully

Factorise $10x + 35$ fully. Show the common factor you use.

My working and answer

Check F02 answer on page 10

Use them again: try the question, check the method, then explain it without looking. Revisit the card on another day. Two sample cards show the format; they do not cover the whole course.

Two cards to keep / answers

The backs swap left and right so they line up when pages 9–10 are printed double-sided on the long edge. Match the card codes when reading on screen.



F02 / ANSWER

FOUNDATION / NO CALCULATOR

Factorising fully

The greatest common factor of 10 and 35 is 5.

$$10x \div 5 = 2x.$$

$$35 \div 5 = 7.$$

Answer: $5(2x + 7)$.

Remember

Find the greatest common factor of every term, then place it outside the bracket.

Check it

Expand to check: $5 \times 2x + 5 \times 7 = 10x + 35$.

Watch out

The factor must divide every term. Check that nothing more can be taken out.

Return to F02 question



F01 / ANSWER

FOUNDATION / NO CALCULATOR

Percentage decrease

$$25\% = \frac{1}{4}.$$

$$\text{Discount} = £96 \div 4 = £24.$$

$$\text{Sale price} = £96 - £24.$$

Answer: £72.

Remember

Find the discount, then subtract it from the original price.

Check it

$£72 + £24 = £96$. The new price is three quarters of the original.

Watch out

A 25% reduction does not mean subtract £25.

Return to F01 question

NEED HELP WITH YOUR NEXT STEP?

Bring your tracker and your questions to a teacher or tutor. For Progress Tutoring support and updates, visit our website.

[Visit Progress Tutoring](https://www.progress tutoring.co.uk)