

11+ PRACTICE PACK

Schofield and Sims 11+ Maths

Complete Practice Pack

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Schofield and Sims 11+ Maths. Work through this paper first.

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START HERE

MARK
✓ or X

Q. 1–5

addition and subtraction problems

- 1 Add together seven million, twelve million and two hundred thousand and four. _____
- 2 What number is equal to the sum of four thousand and nineteen and seven thousand five hundred and ten? _____
- 3 A number is as much above 6050 as 3402 is below it. What is that number? _____
- 4 For a school concert, 390 tickets were sold at £1. A further 758 were sold at £2 and 428 at £3. How many people were at the concert? _____
- 5 If I take 93 plums from a basket there are 125 left. How many were in the basket at first? _____

- 1
- 2
- 3
- 4
- 5

Q. 6–10

timetables

This is Isha's timetable for each school day after morning assembly.

	0920 to 1000	1000 to 1040	1040 to 1100		1120 to 1200		1330 to 1400	1400 to 1515
<i>Mon</i>	Maths	French	English	B	History	L	P.E.	Science
<i>Tues</i>	Maths	Geography	English	R	Music	U	French	Games
<i>Wed</i>	English	French	Maths	E	Library	N	English	Swimming
<i>Thurs</i>	Science	Maths	French	A	English	C	I.C.T.	I.C.T.
<i>Fri</i>	Maths	English	English	K	R.S.	H	P.E.	Drama

- 6 If Isha goes into assembly at 0855, how long is her school day? _____ h _____ min
- 7 How much time each week is spent in English classes? _____ h _____ min
- 8 How much time each week is devoted to Maths? _____ h _____ min
- 9 How much longer is the morning session (starting at 0855) than the afternoon session? _____ h _____ min
- 10 How much time each week is allowed for P.E., games and swimming? _____ h _____ min

- 6
- 7
- 8
- 9
- 10

Q. 11–15

writing large numbers

Write each of these numbers in figures.

- 11 four million and five _____
- 12 five million five hundred and two _____
- 13 eight million six hundred and two thousand and sixty-two _____
- 14 nine and three-quarter million _____
- 15 one hundred and thirty-six million four hundred thousand seven hundred and thirty-five _____

- 11
- 12
- 13
- 14
- 15

MARK

Q. 16–20

mass
problems

16 How many tonnes are in 69 750 kg? _____ t

16

17 What must be added to 748 kg to make $3\frac{1}{8}$ tonnes? _____ t _____ kg

17

18 Four crates weigh $70\frac{1}{2}$ kg, $46\frac{3}{8}$ kg, $82\frac{3}{10}$ kg and 39.6 kg. What is their total mass? _____ kg _____ g

18

19 Subtract 0.9 kg from $3\frac{1}{4}$ kg and multiply your answer by three. _____ kg _____ g

19

20 At a summer camp $4\frac{1}{2}$ kg of casserole was cooked for 25 children. How much casserole did each child receive? _____ g

20

Q. 21–25

decimal
problems

21 How many seconds are there in 0.75 of one minute? _____ s

21

22 How many centimetres are there in 0.01 of one metre? _____ cm

22

23 How many minutes are there in 0.3 of half an hour? _____ min

23

24 How many pence are there in £1.26? _____ p

24

25 How many minutes are there in 0.7 of $1\frac{1}{2}$ hours? _____ min

25

Q. 26–30

percentage
problems

26 What is 50% of £45? £ _____

26

27 What is 15% of 2 tonnes? _____ kg

27

28 What is 30% of 30 kilograms? _____ kg

28

29 What is 90% of 80? _____

29

30 What is 30% of 70 metres? _____ m

30

Q. 31–35

long
division

31
 $28 \overline{) 21\ 168}$

32
 $42 \overline{) 36\ 246}$

33
 $55 \overline{) 21\ 120}$

34
 $39 \overline{) 9399}$

35
 $62 \overline{) 53\ 134}$

31

32

33

34

35

MARK

Q. 36–40
using money

Work out the total for each line of this receipt. Then check that they all add up to the total given.

Paint Pots and Power Tools		£ . p
<i>DIY Stores</i>		
36	12 litres varnish at £2.47 per litre	= _____
37	12 litres paint at £2.26 per litre	= _____
38	18 bags of nails at £6.42 per bag	= _____
39	7 dozen tubes of glue at 54p each	= _____
40	6 packets of seeds at £2.39 each	= _____
Total =		232.02

- 36**
- 37**
- 38**
- 39**
- 40**

Q. 41–45
sequences

Write the next two terms in each of these sequences.

- | | | | | | | |
|-----------|------|----------------|----------------|------------------|-------|-------|
| 41 | 110 | 100 | 91 | 83 | _____ | _____ |
| 42 | 144 | 121 | 100 | 81 | _____ | _____ |
| 43 | 1 | 6 | 36 | 216 | _____ | _____ |
| 44 | 2036 | 1018 | 509 | $254\frac{1}{2}$ | _____ | _____ |
| 45 | 7 | $6\frac{1}{4}$ | $5\frac{1}{2}$ | $4\frac{3}{4}$ | _____ | _____ |

- 41**
- 42**
- 43**
- 44**
- 45**

Q. 46–50
time problems

- 46** A lighthouse beam flashes every 12 seconds.
How many times will it flash in a day? _____
- 47** Adam leaves Leeds at 0815 and arrives in Birmingham $3\frac{2}{5}$ h later. At what time does he arrive? _____
- 48** How many seconds are in $2\frac{1}{4}$ h? _____ s
- 49** A machine produces one pencil every 4 seconds.
How many will it produce between 0900 and 1830? _____
- 50** How many days are there in the first three months of a leap year? _____ d

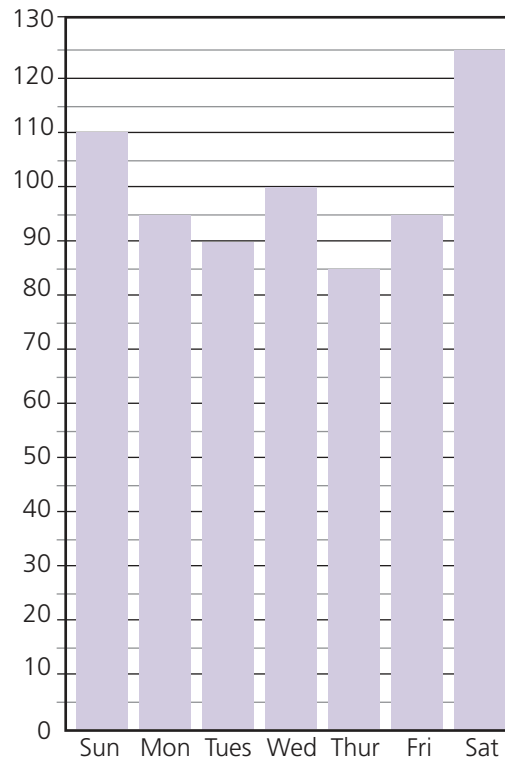
- 46**
- 47**
- 48**
- 49**
- 50**

MARK

Q. 51–55

bar charts

This chart shows the number of cans of lemonade sold by a corner shop in the course of a week.



- 51** How many more cans were sold on Saturday than on Thursday? _____
- 52** How many cans altogether were sold on the two busiest days? _____
- 53** How many cans were sold altogether in the week? _____
- 54** What fraction of the week's total was sold on Wednesday? _____
- 55** What was the average number of cans sold each day? _____

51

52

53

54

55

Q. 56–60

money problems

- 56** My insurance costs £693 for 18 months. How much do I pay each month? £ _____
- 57** A charity advertisement said that £100 could save the sight of eight people. How much is this per person? £ _____
- 58** What is half the difference between £74.68 and £35.22? £ _____
- 59** What sum of money added to itself is equal to half of £40? £ _____
- 60** If you share £220.80 equally among twelve people, how much will each get? £ _____

56

57

58

59

60

MARK

Q. 81–85
algebra

Write each of these sentences in the form of an equation,

e.g. If 3 is added to x , the answer is 15.

$3 + x = 15$

81 number a is 5 more than 6

82 6 less than b is 13

83 4 subtracted from c is equal to 9

84 d added to 3 gives 7

85 16 is the result of multiplying e by 2

- 81**
- 82**
- 83**
- 84**
- 85**

Q. 86–90
measures
multiplication
and division

86 £ . p
 372.86
 × 9

87 l ml
 678 507
 × 11

88 7 h 40 min 55 s × 5 = _____ h _____ min _____ s

89 22.5km ÷ 4 = _____ km

90 300.3kg ÷ 11 = _____ kg

- 86**
- 87**
- 88**
- 89**
- 90**

Q. 91–95
perimeters

91 What is the perimeter of this shape?

36cm²

_____ cm

92 If the length of a rectangle is three times its 4 cm width, what is its perimeter?

_____ cm

93 What is the perimeter of a field $\frac{3}{4}$ km long and 0.2 km wide?

_____ m

94 If the perimeter of a rectangle is 54 cm and its length is 18 cm, what is its width?

_____ cm

95 If the perimeter of a rectangle is 6 times its 6 cm width, what is its length?

_____ cm

- 91**
- 92**
- 93**
- 94**
- 95**

Q. 96–100
probability

There are 52 cards in a pack.

96 If I draw out one card, what is the probability that it will be an ace?

_____ in _____

97 What is the probability that it will be a red card?

_____ in _____

98 What is the probability that it will be a black card?

_____ in _____

99 What is the probability that it will be the three of clubs?

_____ in _____

100 What is the probability that it will be the three of any suit?

_____ in _____

- 96**
- 97**
- 98**
- 99**
- 100**

END OF TEST

SAMPLE PAPER TOTAL MARK

Paper Notes: 11+ Maths Question Booklet

Compiled by [SATs-Papers.co.uk](https://www.SATs-Papers.co.uk) to help you get the most from this paper.

Overview

This is a **Schofield & Sims** maths sample paper designed for **11-Plus** preparation under the **GL Assessment** framework. It provides a comprehensive test of mathematical knowledge and problem-solving skills expected of pupils sitting selective school entrance examinations for **Year 7 entry**.

The paper contains **100 questions** covering a wide range of topics including place value and large numbers, arithmetic operations with decimals and fractions, percentage and ratio calculations, data interpretation, measurement conversions, time problems, basic algebra, perimeter calculations, and probability. Questions are presented in a mixture of formats: straightforward calculations, word problems requiring multi-step reasoning, and applied problems involving real-world contexts such as timetables, shopping receipts, and bar charts.

This paper is suitable for pupils in Year 5 or Year 6 who are working towards entrance exams for grammar or independent schools. The breadth of content makes it particularly valuable for identifying gaps in knowledge across the curriculum and for practising examination technique under timed conditions. The layout mirrors typical 11-Plus papers, with marks allocated per question and clear sectional organisation.

How this paper is organised

The paper is organised into **twenty sections** of five questions each, labelled **Q. 1–5 through to Q. 96–100**. Each section focuses on a particular mathematical theme, such as addition and subtraction problems, timetables, writing large numbers, mass problems, decimal problems, percentage problems, long division, sequences, money problems, algebra, and probability. The questions are numbered consecutively from 1 to 100.

Most questions allocate **one mark** each, with answer spaces provided on the right-hand side of the page. Some questions require answers in multiple units (for example, hours and minutes, or kilograms and grams), and several involve multi-step reasoning. The long division section (Q. 31–35) presents calculations in vertical format for pupils to complete.

No time limit is printed on the paper itself, but a typical 11-Plus maths paper of this length would be expected to take between 50 and 60 minutes. The final page includes

space for a total mark out of 100, allowing pupils and tutors to track performance across all sections.

Topics covered

- Addition and subtraction with large numbers, including word problems involving place value up to millions and multi-step reasoning
- Timetable interpretation: calculating durations, comparing session lengths, and totalling weekly time allocations from a school schedule
- Place value and notation: writing large numbers (up to hundreds of millions) in figures from words, including decimal fractions of millions
- Mass problems: converting between kilograms and tonnes, adding mixed units, and solving division problems involving fractional masses
- Decimal calculations applied to measures: finding fractions of minutes, metres, hours, and monetary amounts expressed as decimals
- Percentage calculations: finding percentages of money, mass, and pure numbers, including multi-step problems with conversion
- Long division: written calculations dividing 4- and 5-digit numbers by 2-digit divisors, requiring careful working and remainder handling
- Money arithmetic: multi-line receipts requiring multiplication and addition, division of sums into equal shares, and finding unit prices
- Sequences: identifying patterns in arithmetic, square, multiplicative, and halving sequences, and predicting the next two terms
- Time problems: converting between units (seconds, minutes, hours), calculating frequencies, journey times in decimal hours, and leap-year day counts
- Data interpretation from bar charts: reading values, calculating totals, fractions, and averages from a vertical bar graph
- 24-hour clock conversions: changing a.m. and p.m. times to 24-hour notation, including times just after midnight
- Statistics: calculating the mean, median, mode, and range of a small data set, and understanding the effect of changing one value
- Addition and subtraction of compound measures: working with hours, minutes, seconds, kilograms, grams, litres, and millilitres in columnar format
- Ratio and proportion: sharing a sum of money in the ratio of given quantities and calculating individual amounts
- Basic algebra: translating simple word statements into equations using variables
- Multiplication and division of compound measures: scaling times and volumes, and dividing measures by whole numbers
- Perimeter: calculating perimeters of rectangles and composite shapes from dimensions, and working backwards from perimeter to find unknown sides

- Probability: expressing probabilities as fractions using a standard deck of 52 playing cards

How to use this paper for revision

- Practise writing large numbers in both words and figures until you can do so confidently, paying close attention to the placement of 'thousand', 'million', and 'hundred' in your written answers.
- When tackling word problems, underline or highlight the key numbers and the question being asked before you start calculating; this helps you avoid common errors such as adding when you should subtract.
- Learn your times tables and division facts thoroughly up to 12×12 , as speed and accuracy in these will save you time on long multiplication and division questions.
- For timetable and time problems, sketch a simple timeline or number line if you find it hard to visualise durations; this makes it easier to see the relationship between start times, end times, and elapsed intervals.
- Revise percentage shortcuts: 10% is found by dividing by 10, 50% by dividing by 2, and 25% by dividing by 4; use these to build up other percentages quickly.
- When working with compound measures (for example, kilograms and grams, or hours and minutes), always line up the units carefully in columns and remember to carry or borrow across the unit boundary (1 kg = 1000 g, 1 hour = 60 minutes).
- For sequence questions, write out the differences between consecutive terms to help you spot the pattern; if the first differences are not constant, look at second differences or ratios.

Common mistakes to avoid

- Misreading large numbers: pupils often confuse 'four million and five' with 'four million and five hundred', or omit zeros when writing numbers in figures. Always count the digits and check place value carefully.
- Forgetting to convert units before adding or subtracting: for example, adding 748 kg to $3\frac{1}{2}$ tonnes without first converting both to the same unit (either all kilograms or all tonnes) will give the wrong answer.
- Losing track of the question in multi-step word problems: pupils may correctly calculate an intermediate answer but then forget to complete the final step, such as multiplying by 12 to find the weekly total or dividing by the number of people.
- Confusing a.m. and p.m. when converting to 24-hour time: remember that times from midnight to noon stay the same (but without 'a.m.'), while times from noon to midnight require adding 12 hours (so 2 p.m. becomes 14:00, not 02:00).
- Mixing up mean, median, and mode: the mean is the average (add all values and divide by how many there are), the median is the middle value when arranged in order, and the mode is the most frequently occurring value.
- Rushing long division and making place-value errors: take care to position each digit of the quotient directly above the correct digit of the dividend, and always write remainders clearly or carry them to the next step.

Exam technique

Begin by skimming the entire paper to get a sense of the question types and to identify any sections that look particularly straightforward or particularly challenging. Start with the questions you find easiest to build confidence and secure quick marks, but be disciplined about moving on if you get stuck; you can always return to difficult questions at the end.

Allocate roughly **30 to 35 seconds per mark** on average, which gives you time to read each question carefully, perform the calculation, and check your answer. For longer questions involving multiple steps (such as the receipt in Q. 36–40 or the ratio problem in Q. 76–80), allow a little extra time but avoid spending more than two or three minutes on any single question. Use any spare time at the end to review your answers, paying particular attention to questions where you had to convert units or perform multiple operations.

Show all working in the margins or in any space provided, even when it is not explicitly requested. This helps you keep track of your method, makes it easier to spot errors when checking, and may earn you partial credit if the paper is being marked by a tutor

or teacher. For questions with answer boxes divided into units (such as hours and minutes, or pounds and pence), double-check that you have written your answer in the correct format and that you have included any necessary zeros (for example, £29.60, not £29.6).

What to revise alongside this paper

To deepen your understanding of the arithmetic covered in this paper, revise **fractions, decimals, and percentages** as interconnected concepts: practise converting freely between the three forms and applying each to real-world contexts such as money, time, and measurement. Strengthen your mental arithmetic by learning estimation strategies (rounding to one significant figure, for example) and by practising rapid recall of square numbers, cube numbers, and common fraction-to-decimal equivalents (such as $\frac{1}{8} = 0.125$ and $\frac{2}{3} = 0.666\dots$).

Work through additional problem-solving exercises that require **multi-step reasoning**, drawing from topics such as speed-distance-time, area and perimeter of compound shapes, and ratio problems involving more than two quantities. These will help you develop the logical thinking and organisational skills needed to tackle the more complex questions in 11-Plus papers.

If you found the algebra and probability sections challenging, revisit the basics of **forming and solving simple linear equations** and the definitions of **theoretical probability**. For pupils aiming for the most competitive schools, consider extending your study to include topics such as prime factorisation, lowest common multiples, and simple algebraic manipulation, as these occasionally appear in harder 11-Plus papers.

Key terms

Place value, Million, Timetable, Duration, Decimal, Percentage, Long division, Sequence, Mean, Median, Mode, Range, Ratio, Proportion, 24-hour clock, Perimeter, Probability, Compound measures, Variable, Equation

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Sample Paper

- 1** 19200004
2 11529
3 8698
4 1576
5 218

6 6 h 20 min
7 3 h 30 min
8 3 h 0 min
9 1 h 20 min
10 3 h 30 min

11 4000005
12 5000502
13 8602062
14 9750000
15 136400735

16 $69\frac{3}{4}$ t
17 2 t 377 kg
18 238 kg 775 g
19 7 kg 50 g
20 180 g

21 45 s
22 1 cm
23 9 min
24 126p
25 63 min

26 £22.50
27 300 kg
28 9 kg
29 72
30 21 m

31 756
32 863
33 384
34 241
35 857

36 £29.64
37 £27.12
38 £115.56
39 £45.36
40 £14.34

41 76, 70
42 64, 49
43 1296, 7776
44 $127\frac{1}{4}$, $63\frac{5}{8}$
45 4, $3\frac{1}{4}$

Sample Paper – continued

- 46** 7200
47 1139
48 8100 s
49 8550
50 91 d

51 40
52 235
53 700
54 $\frac{1}{7}$
55 100

56 £38.50
57 £12.50
58 £19.73
59 £10
60 £18.40

61 0004
62 0100
63 1145
64 1400
65 1600

66 25
67 18
68 26
69 18
70 28

71 £198.71
72 175208 g
73 40268 ml
74 36.425 km
75 1 h 47 min

76 £18
77 £24
78 £27
79 £42
80 £45

81 $a = 6 + 5$
82 $b - 6 = 13$
83 $c - 4 = 9$
84 $3 + d = 7$
85 $e \times 2 = 16$

86 £3355.74
87 7463577 ml
88 38 h 24 min 35 s
89 5.625 km
90 27.3 kg

Sample Paper – continued

- 91** 24 cm
92 32 cm
93 1900 m
94 9 cm
95 12 cm

96 1 in 13
97 1 in 2
98 1 in 2
99 1 in 52
100 1 in 13

Answer-Key Notes: 11+ Maths Answers

Compiled by [SATs-Papers.co.uk](https://www.SATs-Papers.co.uk) to help you mark this paper and learn from each answer.

How to use this answer key

This answer key provides numerical answers only, without intermediate steps or explanations. When marking, award one mark per question and record which topics caused difficulty rather than simply tallying the total. **A careless slip in arithmetic looks identical to a conceptual gap** on the mark scheme, so ask your child to explain their working for any incorrect answer. If they can describe the correct method but made a calculation error, that requires different follow-up from a question where they had no strategy at all.

The worked examples below explain the reasoning behind selected answers, particularly where the question requires multiple steps or where a common misconception leads students astray. Use these explanations when your child's working is unclear or absent, or when they arrived at the right answer by an incorrect or incomplete method.

Mark the entire paper in one sitting, then review it together, focusing on patterns: does your child struggle with time calculations but excel at sequences? Do they miss questions involving unit conversions? Identifying these patterns is more valuable than the raw score.

Score interpretation

This paper contains 100 questions covering the full breadth of the upper Key Stage 2 and lower Key Stage 3 curriculum: number, measures, geometry, data handling, algebra and probability. **A score above 80 demonstrates strong readiness** for selective-school mathematics, provided errors are spread across topics rather than concentrated in one area. Scores between 60 and 80 indicate solid foundations with specific gaps to address, often in measures conversions, multi-step problems or less-practised topics such as ratio and algebra.

Scores below 60 suggest that core arithmetic or conceptual understanding needs consolidation before tackling 11+ material. Check whether errors cluster in the later questions (fatigue or time pressure) or appear throughout (fundamental gaps). A child who scores 45 but answers Q81–85 (algebra) correctly has different needs from one who stumbles at Q1–5 (addition and subtraction).

Because every question carries equal weight, a single mark lost on a long-division question (Q31–35) costs the same as a straightforward recall task (Q11–15). Review the

question paper alongside this key to understand what each mark represents, and prioritise revision accordingly.

Worked examples

Addition, subtraction and place value, Q1–15

Questions 1–5 reward careful reading and methodical calculation; many students rush and misread 'sum of' or overlook a step in multi-part problems. **Questions 11–15 test written place value** and are usually straightforward provided students remember that 'and' denotes the decimal point in spoken numbers (e.g. 'nine and three-quarter million' becomes 9 750 000). Lost marks here are almost always careless transcription errors rather than conceptual misunderstandings.

Q1 : 19 200 004

Add 7 000 000, 12 000 000 and 200 004. The phrase 'add together' signals straightforward addition, but students often misread the final number as 'two hundred thousand, four' instead of 'two hundred thousand and four'. **Write each number in columns, aligning place values**, to avoid transcription errors: $7\,000\,000 + 12\,000\,000 + 200\,004 = 19\,200\,004$.

Q3 : 8698

The number is as much above 6050 as 3402 is below it. First find the gap: $6050 - 3402 = 2648$. Then add the same gap above 6050: $6050 + 2648 = 8698$. Students who subtract 3402 from 6050 and stop have only completed half the problem.

Q14 : 9 750 000

Three-quarters is 0.75, so 'nine and three-quarter million' means 9.75 million. **Multiply 9.75 by one million** to convert to figures: $9.75 \times 1\,000\,000 = 9\,750\,000$. A common error is writing 9 340 000 (misinterpreting three-quarters as 34 hundredths).

Mass, decimals and percentages, Q16–30

This section tests unit conversions and fluency with decimals. **Most errors stem from incorrect conversion factors** (e.g. treating 1 kg as 100 g instead of 1000 g) or misaligning decimal points when adding mixed units. Questions 26–30 require students to find percentages of quantities; those who try to work without a calculator should use factor methods ($50\% = \frac{1}{2}$, $10\% = \div 10$, then combine) rather than long multiplication.

Q17 : 2 t 377 kg

$3\frac{1}{8}$ tonnes = 3125 kg (since $\frac{1}{8}$ of 1000 kg = 125 kg). Subtract 748 kg already present: $3125 - 748 = 2377$ kg. Convert back to tonnes and kilograms: 2377 kg = 2 t 377 kg. Students who write '2 t 625 kg' have subtracted 748 from 3000 instead of 3125.

Q19 : 7 kg 50 g

$3\frac{1}{4}$ kg = 3.25 kg. Subtract 0.9 kg: $3.25 - 0.9 = 2.35$ kg. Multiply by three: $2.35 \times 3 = 7.05$ kg = 7 kg 50 g. **Keep everything in kilograms until the final conversion** to avoid errors mixing units mid-calculation.

Q27 : 300 kg

15% of 2 tonnes: first convert to the same unit (2 tonnes = 2000 kg). Then 10% of 2000 kg = 200 kg and 5% = 100 kg, so 15% = $200 + 100 = 300$ kg. Alternatively, $0.15 \times 2000 = 300$.

Long division and sequences, Q31–45

Long division questions (Q31–35) are marked correct only if the final quotient is accurate; no partial credit is available for working. **The most common errors are incorrect subtraction within the algorithm or dropping a zero when bringing down digits.** Questions 41–45 test pattern recognition; students must identify whether the sequence is arithmetic, geometric or based on square numbers, then apply the rule twice. Wrong answers usually mean the student identified the wrong operation or applied the rule only once.

Q32 : 863

Divide 36 246 by 42. Set up the long division: 42 goes into 36 zero times, into 362 eight times ($8 \times 42 = 336$), leaving 26. Bring down 4 to make 264; 42 goes into 264 six times exactly ($6 \times 42 = 252$), leaving 12. Bring down 6 to make 126; 42 goes into 126 three times exactly. Answer: 863.

Q41 : 76, 70

The differences are $-10, -9, -8$, so the sequence decreases by one less each time. From 83, subtract 7 to get 76; from 76, subtract 6 to get 70. Students who write 76, 69 have continued subtracting 7 instead of reducing the gap.

Q43 : 1296, 7776

Each term is six times the previous term: $1 \times 6 = 6$, $6 \times 6 = 36$, $36 \times 6 = 216$. Continue: $216 \times 6 = 1296$, $1296 \times 6 = 7776$. **Geometric sequences multiply by a constant ratio**; checking the ratio between consecutive terms prevents errors.

Money, time and ratio, Q36–50, Q56–60, Q76–80

Money questions require accurate multiplication or division, often to two decimal places.

Round answers to the nearest penny unless the question specifies otherwise. Time problems (Q46–50) demand fluency with converting hours, minutes and seconds; many students lose marks by forgetting that 1 hour = 3600 seconds or miscalculating elapsed time across midday. Ratio problems (Q76–80) require students to sum the parts, divide the total, then multiply by each part; errors usually occur in the first step.

Q47 : 1139

Adam leaves at 08:15 and travels for $3\frac{2}{5}$ hours. Convert $\frac{2}{5}$ hour to minutes: $\frac{2}{5} \times 60 = 24$ minutes. So the journey is 3 hours 24 minutes. Add to 08:15: $08:15 + 3:24 = 11:39$. Write in 24-hour format: 1139.

Q59 : £10

Let the sum be x . The question states $x + x = \frac{1}{2}$ of £40, so $2x = 20$, giving $x = 10$. Students who answer £20 have misread 'added to itself' as 'doubled and then halved'.

Q76 : £18

The ratio of ages is 6 : 8 : 9 : 14 : 15. Sum the parts: $6 + 8 + 9 + 14 + 15 = 52$. **Each part represents $£156 \div 52 = £3$** . Ruby receives 6 parts: $6 \times £3 = £18$. Check the others sum to £156.

Data handling, algebra and probability, Q51–55, Q66–70, Q81–85, Q96–100

Bar-chart questions (Q51–55) test reading values from axes and performing calculations; check that students read the scale correctly (each gridline may represent 10 or 20 units).

Mean, median, mode and range (Q66–70) require students to sort data and apply definitions accurately. **Algebra questions (Q81–85) ask for equations in a specific form**; writing ' $6 + 5 = a$ ' instead of ' $a = 6 + 5$ ' may lose the mark depending on the mark scheme's strictness. Probability questions (Q96–100) expect answers in the form '1 in n '; simplify fractions where possible.

Q54 : 1/7

From the bar chart, 100 cans were sold on Wednesday. The weekly total is 700 (Q53). The fraction is $100/700 = 1/7$. Students must simplify; writing '100/700' may not receive full marks.

Q68 : 26

To find the median, arrange the numbers in order: 18, 18, 26, 27, 36. The middle value (third of five) is 26. **The median is not the mean**; a common error is to add the numbers and divide by five.

Q82 : $b - 6 = 13$

'6 less than b' means $b - 6$ (not $6 - b$). The sentence states this equals 13, so the equation is $b - 6 = 13$. Students who write ' $6 - b = 13$ ' have reversed the subtraction.

Q99 : 1 in 52

There are 52 cards and exactly one three of clubs, so the probability is $1/52$ or '1 in 52'. Do not simplify further. Students who answer '1 in 13' are confusing this with the probability of drawing any three (Q100).

Measures, perimeters and conversions, Q61–65, Q71–75, Q86–95

24-hour clock conversions (Q61–65) are straightforward: a.m. times stay the same except midnight (0000), and p.m. times add 12 to the hour. **Measures addition (Q71–75) requires careful alignment of units**; convert everything to the smaller unit before adding, then convert back. Perimeter questions (Q91–95) need students to double the sum of length and width, or rearrange the formula when one dimension is unknown. Most errors arise from forgetting to double or from incorrect algebraic rearrangement.

Q75 : 1 h 47 min

$4\frac{1}{2}$ hours = 4 hours 12 minutes (since $\frac{1}{2} \times 60 = 12$). Subtract 145 minutes = 2 hours 25 minutes. Rewrite 4 h 12 min as 3 h 72 min to allow subtraction: $3\text{ h }72\text{ min} - 2\text{ h }25\text{ min} = 1\text{ h }47\text{ min}$.

Q94 : 9 cm

Perimeter = $2(l + w)$. Given perimeter 54 cm and length 18 cm: $54 = 2(18 + w)$. Divide both sides by 2: $27 = 18 + w$. Therefore $w = 27 - 18 = 9$ cm.

Q88 : 38 h 24 min 35 s

Multiply each component by 5: $7 \text{ h} \times 5 = 35 \text{ h}$; $40 \text{ min} \times 5 = 200 \text{ min} = 3 \text{ h } 20 \text{ min}$; $55 \text{ s} \times 5 = 275 \text{ s} = 4 \text{ min } 35 \text{ s}$. Add: $35 \text{ h} + 3 \text{ h } 20 \text{ min} + 4 \text{ min } 35 \text{ s} = 38 \text{ h } 24 \text{ min } 35 \text{ s}$.

Next steps

After marking, **create a two-column error log**: one column for careless mistakes (misread the question, arithmetic slip, ran out of time) and one for conceptual gaps (did not know the method, misunderstood the topic). Revisit questions in the second column first, using a textbook or online resource to rebuild understanding, then return to the question after a day or two. If the same mistake recurs, the gap is not yet closed.

If your child scored above 80, extend their learning with multi-step problem-solving papers or past selective-school entrance papers from GL Assessment or CEM. If the score was below 60, pause 11+ practice and consolidate Year 5 and 6 arithmetic using a structured scheme such as Schofield & Sims Mental Arithmetic or CGP targeted practice books. **Retake this paper in four to six weeks** to measure progress; a second attempt should yield a score at least ten marks higher if the revision has been effective. Focus on accuracy over speed until core methods are secure.

For more free 11+ practice papers, past papers and online practice tests, visit [SATs-Papers.co.uk](https://www.SATs-Papers.co.uk).