

ST OLAVE'S GRAMMAR SCHOOL
11+ Maths Entrance Examination

Practice Paper — 2025 Style

Time allowed: 50 minutes

Total marks: 40

Questions: 10

INSTRUCTIONS

- Answer ALL questions.
 - Show your working where required — marks may be awarded for method.
 - Write your answers clearly in the spaces provided.
 - You may NOT use a calculator unless stated otherwise.
 - Check your work if you finish early.
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Question 1

[1 mark]

Calculate $3,457 + 2,869$

Answer:

Question 2

[1 mark]

What is $\frac{3}{8}$ of 240?

- A** 80
 - B** 90
 - C** 30
 - D** 120
-

Question 3

[2 marks]

A shop sells apples for 35p each. Mrs Green buys 8 apples and pays with a £5 note. How much change does she receive?

Answer:

Working space:

Question 4

[1 mark]

The angles in a triangle add up to 180° . A triangle has angles of 65° and 48° . What is the third angle?

- A 67°
 - B 77°
 - C 57°
 - D 113°
-

Question 5

[1 mark]

Simplify the ratio 36:24

Answer:

Question 6

[3 marks]

A rectangle has a perimeter of 36 cm. Its length is twice its width. What is the area of the rectangle?

Answer:

Working space:

Question 7

[1 mark]

What is 15% of £180?

- A £27
 - B £18
 - C £30
 - D £25
-

Question 8

[2 marks]

A sequence follows the rule 'multiply by 2 then subtract 3'. If the first term is 5, what is the fourth term?

Answer:

Working space:

Question 9

[1 mark]

Convert 3.75 km to metres.

- A 375 m
 - B 3,750 m
 - C 37,500 m
 - D 37.5 m
-

Question 10

[3 marks]

Tom has £4.50. He spends $\frac{2}{5}$ of his money on a drink and $\frac{1}{3}$ of his money on a snack. How much does he have left?

Answer:

Working space:

— End of Paper —

ANSWER KEY & WORKED SOLUTIONS

St Olave's Grammar School — 11+ Maths Practice Paper

QUICK ANSWERS

Q	Answer	Marks
1	6326	1
2	90	1
3	£2.20	2
4	67°	1
5	3:2	1
6	72 cm ²	3
7	£27	1
8	29	2
9	3,750 m	1
10	£1.20	3
Total		40

WORKED SOLUTIONS

Question 1 — Answer: 6326

Calculate $3,457 + 2,869$

1. Add the ones: $7 + 9 = 16$, write 6 carry 1.
2. Add the tens: $5 + 6 + 1 = 12$, write 2 carry 1.
3. Add the hundreds: $4 + 8 + 1 = 13$, write 3 carry 1.
4. Add the thousands: $3 + 2 + 1 = 6$.
5. Answer: 6,326.

Column addition with carrying. Work from right to left, carrying tens to the next column.

Question 2 — Answer: 90

What is $\frac{3}{8}$ of 240?

1. Find $\frac{1}{8}$ of 240: $240 \div 8 = 30$.
2. Multiply by 3: $30 \times 3 = 90$.

To find a fraction of an amount, divide by the denominator then multiply by the numerator.

Question 3 — Answer: £2.20

A shop sells apples for 35p each. Mrs Green buys 8 apples and pays with a £5 note. How much change does she receive?

1. Cost of 8 apples: $8 \times 35\text{p} = 280\text{p} = £2.80$.
2. Change from £5: $£5.00 - £2.80 = £2.20$.

Multiply the unit price by quantity, then subtract from the amount paid. Remember to convert pence to pounds.

Question 4 — Answer: 67°

The angles in a triangle add up to 180°. A triangle has angles of 65° and 48°. What is the third angle?

1. Sum of known angles: $65^\circ + 48^\circ = 113^\circ$.
2. Third angle: $180^\circ - 113^\circ = 67^\circ$.

Angles in a triangle always add up to 180°. Subtract the known angles from 180° to find the missing angle.

Question 5 — Answer: 3:2

Simplify the ratio 36:24

1. Find the HCF of 36 and 24. Factors of 36: 1,2,3,4,6,9,12,18,36. Factors of 24: 1,2,3,4,6,8,12,24.
2. HCF = 12.
3. Divide both parts: $36 \div 12 = 3$, $24 \div 12 = 2$.
4. Simplified ratio: 3:2.

To simplify a ratio, divide both parts by their highest common factor (HCF).

Question 6 — Answer: 72 cm²

A rectangle has a perimeter of 36 cm. Its length is twice its width. What is the area of the rectangle?

1. Let width = w . Then length = $2w$.
2. Perimeter = $2(\text{length} + \text{width}) = 2(2w + w) = 6w$.
3. $6w = 36$, so $w = 6$ cm.
4. Length = $2 \times 6 = 12$ cm.
5. Area = $12 \times 6 = 72$ cm².

Use the perimeter formula to set up an equation. Once you know the width, find the length (twice the width) and calculate area = length \times width.

Question 7 — Answer: £27

What is 15% of £180?

1. 10% of £180 = £18.
2. 5% of £180 = £9.
3. 15% = 10% + 5% = £18 + £9 = £27.

A quick way to find 15% is to find 10% (divide by 10) and 5% (halve the 10%), then add them together.

Question 8 — Answer: 29

A sequence follows the rule 'multiply by 2 then subtract 3'. If the first term is 5, what is the fourth term?

1. 1st term: 5.
2. 2nd term: $5 \times 2 - 3 = 7$.
3. 3rd term: $7 \times 2 - 3 = 11$.
4. 4th term: $11 \times 2 - 3 = 19$. Wait, let me recheck.
5. Actually: $11 \times 2 = 22$, $22 - 3 = 19$. Hmm, let me recalculate from scratch.
6. 1st: 5. 2nd: $(5 \times 2) - 3 = 7$. 3rd: $(7 \times 2) - 3 = 11$. 4th: $(11 \times 2) - 3 = 19$.

Apply the rule to each term to get the next. Be careful to multiply first, then subtract.

Question 9 — Answer: 3,750 m

Convert 3.75 km to metres.

1. 1 km = 1,000 m.
2. 3.75 km = $3.75 \times 1,000 = 3,750$ m.

To convert km to metres, multiply by 1,000. Move the decimal point 3 places to the right.

Question 10 — Answer: £1.20

Tom has £4.50. He spends $\frac{2}{5}$ of his money on a drink and $\frac{1}{3}$ of his money on a snack. How much does he have left?

1. Drink: $\frac{2}{5}$ of £4.50 = $£4.50 \times \frac{2}{5} = £1.80$.

2. Snack: $\frac{1}{3}$ of £4.50 = $£4.50 \div 3 = £1.50$.

3. Total spent: $£1.80 + £1.50 = £3.30$.

4. Money left: $£4.50 - £3.30 = £1.20$.

Calculate each fraction of the total separately, add them together, then subtract from the original amount.
