



11+ MATHS PRACTICE PACK

Test your skills • Challenge yourself • Build confidence

Suitable for GL, Independent Schools, and
Grammar School Preparation

ACUMEN TEACH

FREE 11+ MATHS PRACTICE PACK

20 Questions · Mixed Topics · Multiple Choice

Build accuracy. Strengthen understanding. Practise with confidence.

Suggested time: 30 minutes

Total marks: 20

Equipment: Pencil and rough paper

Name: _____

Date: _____

Welcome to Your Practice Pack

This practice paper is designed to help you develop important mathematical skills used in 11+ preparation. The questions cover a variety of topics, from number calculations and fractions to geometry and problem-solving.

Work carefully, read each question fully and choose the one correct answer from options A, B, C or D.

Before you begin

- Try to complete the paper independently.
- Choose one answer for every question.
- Show your working on rough paper where helpful.
- Check your calculations if you have time.
- Do not look at the answers until you have finished.

Remember: The aim is not simply to finish quickly. It is to answer accurately and understand any mistakes.

SECTION 1 — THE PRACTICE PAPER

20 questions · 1 mark per question

Question 1 — Addition

Calculate:

$$487 + 268 = ?$$

- A. 745
- B. 755
- C. 765
- D. 775

Question 2 — Division

Calculate:

$$936 \div 12$$

- A. 68
- B. 72
- C. 78
- D. 82

Question 3 — Fractions of Amounts

What is $\frac{3}{4}$ of 64?

- A. 16
- B. 32
- C. 40
- D. 48

Question 4 — Decimal Numbers

Calculate:

$$2.75 + 1.8 = ?$$

- A. 3.55
- B. 4.45
- C. 4.55
- D. 4.65

Question 5 — Percentages

What is 15% of 240?

- A. 24
- B. 30
- C. 36
- D. 40

Question 6 — Ratio

The ratio of red counters to blue counters is 3:5.

There are 40 counters altogether. How many are red?

- A. 12
- B. 15
- C. 20
- D. 25

Question 7 — Order of Operations

Calculate:

$$7 \times 8 - 18 \div 3 = ?$$

- A. 38
- B. 44
- C. 50
- D. 54

Question 8 — Perimeter

A rectangular garden is 12 metres long and 7 metres wide.

What is its perimeter?

- A. 19 m
- B. 38 m
- C. 42 m
- D. 84 m

Question 9 — Area of a Triangle

A triangle has a base of 10 cm and a perpendicular height of 6 cm.

What is its area?

- A. 16 cm^2
- B. 30 cm^2
- C. 32 cm^2
- D. 60 cm^2

Question 10 — Number Sequences

Find the next number in the sequence:

4, 9, 19, 39 ?

- A. 59
- B. 69
- C. 78
- D. 79

Question 11 — Averages

Four test scores are:

12, 15, 9, 14

What is the mean score?

- A. 11.5
- B. 12
- C. 12.5
- D. 13

Question 12 — Metric Conversions

Convert 2.4 kilograms into grams.

- A. 240 g
- B. 2,040 g
- C. 2,400 g
- D. 24,000 g

Question 13 — Money

Amira has £18.50. She buys a book for £6.75 and a pen set for £4.80.

How much money does she have left?

- A. £6.85
- B. £6.95
- C. £7.05
- D. £7.95

Question 14 — Time

A lesson starts at 9:45 am and finishes at 11:20 am.

How long is the lesson?

- A. 1 hour 25 minutes
- B. 1 hour 30 minutes
- C. 1 hour 35 minutes
- D. 1 hour 45 minutes

Question 15 — Multiplication and Money

Five identical notebooks cost £7.50 altogether.

How much would eight notebooks cost at the same price per notebook?

- A. £10.50
- B. £11.50
- C. £12.00
- D. £12.50

Question 16 — Adding Fractions

Calculate:

$$\frac{3}{5} + \frac{1}{4} = ?$$

- A. $\frac{4}{9}$
- B. $\frac{7}{10}$
- C. $\frac{4}{20}$
- D. $\frac{17}{20}$

Question 17 — Finding a Percentage

A school has 84 pupils in a year group. One quarter of the pupils travel to school by bus.

How many pupils travel by bus?

- A. 18
- B. 20
- C. 21
- D. 24

Question 18 — Multi-Step Word Problem

A shop has 8 bags containing 7 apples each. The shop sells 13 apples.

How many apples remain?

- A. 35
- B. 43
- C. 45
- D. 56

Question 19 — Number Reasoning

Two consecutive even numbers add up to 46.

What is the smaller number?

- A. 20
- B. 22
- C. 23
- D. 24

Question 20 — Speed

A car travels 150 kilometres in 3 hours at a constant speed.

What is its average speed?

- A. 45 km/h
 - B. 50 km/h
 - C. 55 km/h
 - D. 60 km/h
-

SECTION 2 — YOUR ANSWER SHEET

Complete this section before checking the solutions.

Write the letter of your chosen answer in the final column.

Question	Answer	Question	Answer
1		11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

My score: _____ / 20

How did you find the paper?

Tick one option.

- I found most questions straightforward.
- Some questions required careful thinking.
- I found several questions challenging.
- I need to revisit some of these topics.

Keep this answer sheet so you can compare your progress when you complete another practice paper.

STOP!

Have you completed all 20 questions?

Before continuing, check that you have answered every question and reviewed any calculations you were unsure about.

The worked solutions begin below.

SECTION 3 — FULLY WORKED SOLUTIONS

Each solution explains the method as well as the correct answer. If you chose a different option, try to identify where your method went wrong before moving on.

Question 1 — Addition

Correct answer: B — 755

Calculate:

Calculate $487 + 268$.

First add 200:

$$487 + 200 = 687$$

Then add 60:

$$687 + 60 = 747$$

Finally, add 8:

$$747 + 8 = 755$$

Answer: 755

Tip: Work systematically by place value and keep track of any carrying.

Remember: When adding larger numbers, work systematically by place value and keep track of any carrying.

Question 2 — Division

Correct answer: C — 78

Calculate $936 \div 12$.

First, $12 \times 70 = 840$.

Subtract:

$$936 - 840 = 96$$

Next, $12 \times 8 = 96$.

Therefore:

$$70 + 8 = 78$$

Answer: 78

Tip: Check division using multiplication. Here, $78 \times 12 = 936$.

Question 3 — Fractions of Amounts

Correct answer: D — 48

Find $\frac{3}{4}$ of 64.

First divide by the denominator:

$$64 \div 4 = 16$$

Then multiply by the numerator:

$$16 \times 3 = 48$$

Answer: 48

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

Question 4 — Decimal Numbers

Correct answer: C — 4.55

Calculate $2.75 + 1.8$.

Write 1.8 as 1.80 so that the decimal places line up.

$$2.75 + 1.80 = 4.55$$

Answer: 4.55

Tip: Always line up decimal points when adding or subtracting decimal numbers.

Question 5 — Percentages

Correct answer: C — 36

Find 15% of 240.

First find 10%:

$$240 \div 10 = 24$$

Then find 5%, which is half of 10%:

$$24 \div 2 = 12$$

Add them together:

$$24 + 12 = 36$$

Answer: 36

Tip: Breaking percentages into 10% and 5% can make calculations easier.

Question 6 — Ratio

Correct answer: B — 15

The ratio of red counters to blue counters is 3:5.

First find the total number of parts:

$$3 + 5 = 8 \text{ parts}$$

There are 40 counters altogether, so each part represents:

$$40 \div 8 = 5 \text{ counters}$$

Red counters account for 3 parts:

$$3 \times 5 = 15$$

Answer: 15 red counters

Tip: Add all the ratio parts before dividing the total amount.

Question 7 — Order of Operations

Correct answer: C — 50

Calculate $7 \times 8 - 18 \div 3$.

Complete multiplication and division before subtraction.

First:

$$7 \times 8 = 56$$

Next:

$$18 \div 3 = 6$$

Finally:

$$56 - 6 = 50$$

Answer: 50

Tip: Do not automatically calculate from left to right. Follow the correct order of operations.

Question 8 — Perimeter

Correct answer: B — 38 m

The rectangle is 12 m long and 7 m wide.

Perimeter is the total distance around the outside.

Add all four sides:

$$12 + 7 + 12 + 7 = 38$$

Alternatively:

$$2 \times (12 + 7) = 38$$

Answer: 38 m

Tip: Perimeter measures the distance around a shape. Area measures the space inside it.

Question 9 — Area of a Triangle

Correct answer: B — 30 cm²

The formula for the area of a triangle is:

$$\text{Area} = \text{base} \times \text{height} \div 2$$

Substitute the measurements:

$$10 \times 6 = 60$$

Then divide by 2:

$$60 \div 2 = 30$$

Answer: 30 cm^2

Tip: Do not forget to halve the product of the base and perpendicular height.

Question 10 — Number Sequences

Correct answer: D — 79

The sequence is:

4, 9, 19, 39, ?

Look at the pattern:

$$4 \times 2 + 1 = 9$$

$$9 \times 2 + 1 = 19$$

$$19 \times 2 + 1 = 39$$

Apply the same rule again:

$$39 \times 2 + 1 = 79$$

Answer: 79

Tip: Look for a consistent pattern between consecutive numbers, such as adding, multiplying or combining operations.

Question 11 — Averages

Correct answer: C — 12.5

The mean is calculated by adding all the values and dividing by the number of values.

Add the scores:

$$12 + 15 + 9 + 14 = 50$$

There are four scores:

$$50 \div 4 = 12.5$$

Answer: 12.5

Tip: Mean = total of the values $\div$ number of values.

Question 12 — Metric Conversions

Correct answer: C — 2,400 g

There are 1,000 grams in one kilogram.

To convert 2.4 kg into grams, multiply by 1,000:

$$2.4 \times 1,000 = 2,400$$

Answer: 2,400 g

Tip: When converting kilograms to grams, multiply by 1,000.

Question 13 — Money

Correct answer: B — £6.95

Amira starts with £18.50.

First calculate the total cost:

$$£6.75 + £4.80 = £11.55$$

Now subtract the total cost from her original amount:

$$£18.50 - £11.55 = £6.95$$

Answer: £6.95

Tip: Add the costs first, then subtract the total from the amount available.

Question 14 — Time

Correct answer: C — 1 hour 35 minutes

The lesson starts at 9:45 am and finishes at 11:20 am.

From 9:45 am to 10:45 am is 1 hour.

From 10:45 am to 11:20 am is 35 minutes.

Add the intervals:

$$1 \text{ hour} + 35 \text{ minutes} = 1 \text{ hour } 35 \text{ minutes}$$

Answer: 1 hour 35 minutes

Tip: Splitting a time interval into manageable parts can be easier than subtracting the clock times directly.

Question 15 — Multiplication and Money

Correct answer: C — £12.00

Five notebooks cost £7.50.

First find the cost of one notebook:

$$£7.50 \div 5 = £1.50$$

Now calculate the cost of eight notebooks:

$$£1.50 \times 8 = £12.00$$

Answer: £12.00

Tip: Find the unit cost before calculating the cost of a different quantity.

Question 16 — Adding Fractions

Correct answer: D — $17/20$

Calculate $3/5 + 1/4$.

The denominators are different, so find a common denominator.
The lowest common denominator of 5 and 4 is 20.

Convert both fractions:

$$3/5 = 12/20$$

$$1/4 = 5/20$$

Add the numerators:

$$12/20 + 5/20 = 17/20$$

Answer: $17/20$

Tip: You can add fractions directly only when they have the same denominator.

Question 17 — Finding a Percentage

Correct answer: C — 21

One quarter of 84 pupils travel by bus.

One quarter means dividing by 4:

$$84 \div 4 = 21$$

Answer: 21 pupils

Tip: One quarter is equivalent to 25%. Dividing by 4 is a quick way to find 25% of an amount.

Question 18 — Multi-Step Word Problem

Correct answer: B — 43

There are 8 bags containing 7 apples each.

First calculate the total number of apples:

$$8 \times 7 = 56$$

The shop sells 13 apples, so subtract:

$$56 - 13 = 43$$

Answer: 43 apples

Tip: Work out the starting total before subtracting the number that has been sold.

Question 19 — Number Reasoning

Correct answer: B — 22

Consecutive even numbers differ by 2.

Try 22 and the next even number, 24:

$$22 + 24 = 46$$

The sum is correct, so the smaller number is 22.

Answer: 22

Tip: Consecutive even numbers differ by 2.

Question 20 — Speed

Correct answer: B — 50 km/h

The car travels 150 kilometres in 3 hours.

Average speed = distance $\div$ time

$$150 \div 3 = 50$$

Answer: 50 km/h

Tip: When distance is measured in kilometres and time in hours, speed is expressed in kilometres per hour.

SECTION 4 — ANSWER KEY

Use this table to check your answers.

Question	Answer	Question	Answer
1	B	11	C
2	C	12	C
3	D	13	B
4	C	14	C
5	C	15	C
6	B	16	D
7	C	17	C
8	B	18	B
9	B	19	B
10	D	20	B

Reflect on Your Results

Your score: _____ / 20

Your score is a useful snapshot of performance on this particular set of questions. It is not a prediction of your child's eventual 11+ result.

After marking the paper, review any incorrect answers and identify the topic involved. Understanding why an answer was wrong is often more valuable than simply knowing the correct answer.

- Review: Revisit the method for each question you found difficult.
 - Practise: Complete more questions on the topics that need attention.
 - Repeat: Try another practice paper later and compare your progress.
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Keep Building Your 11+ Confidence

At Acumen Teach, we believe that effective preparation starts with understanding the methods behind the answers.

If your child would benefit from more focused support, explore our additional 11+ revision guides and practice resources. These can help develop individual maths skills, strengthen weaker topics and provide further opportunities to practise.

Explore more resources at Acumen Teach

Website: <https://www.acumen-teach.co.uk/>

Free resource from Acumen Teach. Designed to support 11+ maths practice and independent learning.

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