Maths Paper 1: quick guide

Warm-up level · 20 questions in 5 sections · 20 minutes · no calculator

Give 1 mark for each correct answer (no half marks). This page is all you need to mark the paper. The full guide from page 2 works through every question and explains what each wrong answer usually means.

Answer key

1 **A** 32	**6** **D** 17	**11** **A** 4	**16** **A** 28 cm
2 **D** 96	**7** **A** 11	**12** **C** 26	**17** **B** 3
3 **D** 153	**8** **A** 51	**13** **C** 7 o'clock	**18** **B** 9
4 **C** 9	**9** **D** 22	**14** **B** 2 m	**19** **C** East
5 **B** 11	**10** **D** $^{2}/_{4}$	**15** **C** 30p	**20** **B** 4

Scores by section

Add up the marks in each section and copy them into the PrimaryTools 7+ Maths tracker. A low section shows what to practise.

Section	Questions	In this paper	Score
Number and place value	1–4	Partitioning; Odd and even; Numbers in words; Number patterns	/ 4
Adding and subtracting	5–8	Subtracting; Missing numbers; Number bonds; Adding	/ 4
Multiplying, dividing and fractions	9–12	Times tables; Recognising fractions; Sharing and grouping; Doubling and halving	/ 4
Money, time and measures	13–16	Telling the time; Estimating measures; Giving change; Comparing measures	/ 4
Shape, data and problems	17–20	2-D shapes; Tally charts; Turns and direction; Bar charts	/ 4
Total			/ 20

What the score means

Score	What it suggests
18–20	Secure at warm-up level. Move on to the standard papers (4–8).
14–17	A good start. Read the notes for the questions missed, then try the next paper.
10–13	Getting there. Look at the scores by section and practise the weakest one together before the next paper.
0–9	Some foundations need work. Try the weakest section's questions together, out loud and without a timer, then return to timed papers.

This is a warm-up paper, so scores will usually be higher than on later papers. Scores on practice papers are a guide only – they don't predict a pass mark, which varies by school and year.

Full answer guide

For each question: how to work it out, what each wrong answer usually means, and a tip for next time. Go through the questions your child got wrong – and any they guessed. At this age, talking it through together is worth more than the score.

Number and place value · Questions 1–4

Question 1 · Answer A: 32

Partitioning

What number is 3 tens and 2 ones?

How to work it out

1. 3 tens = 30.
2. 30 + 2 = 32.

If you chose…

B 23	The tens and ones have been swapped round.
C 5	This adds the two digits instead of using place value.
D 42	This has one ten too many.

Next time: Tens go first, ones go second. Swapping them gives a different number.

Question 2 · Answer D: 96

Odd and even

Which of these numbers is even?

How to work it out

Only the ones digit matters. 96 ends in 6, which is even.

If you chose…

A 61	61 ends in 1, so it is odd.
B 41	41 ends in 1, so it is odd.
C 69	69 ends in 9, so it is odd.

Next time: Even numbers end in 0, 2, 4, 6 or 8. Odd numbers end in 1, 3, 5, 7 or 9. Ignore the tens digit.

Question 3 · Answer D: 153

Numbers in words

Which number is one hundred and fifty-three?

How to work it out

1. ‘One hundred’ is 100.
2. ‘fifty-three’ is 53.
3. 100 + 53 = 153.

If you chose…

A	135	The tens and ones have been swapped.
B	1,053	This writes ‘hundred’ as 00 – a hundred is only one extra digit.
C	163	This has one ten too many.

Next time: A three-digit number has a hundreds digit, a tens digit and a ones digit – no more.

Question 4 · Answer C: 9

Number patterns

What is the next number? 24, 21, 18, 15, 12, …

How to work it out

1. Find the jump: the numbers go down by 3 each time.
2. So the next number is 9.

If you chose…

A	12	This goes the wrong way – the numbers go down.
B	6	This goes too far.
D	8	This is one away – check the jump again.

Next time: Work out the jump between two numbers next to each other, and check it works all the way along.

Adding and subtracting · Questions 5–8

Question 5 · Answer B: 11

Subtracting

Work out 18 − 7.

How to work it out

1. Count on from 7 to 18, or take away in parts.
2. 18 − 7 = 11.
3. Check: 11 + 7 = 18.

If you chose…

A	10	One too few – check by adding.
C	13	Count back again.
D	25	This adds instead of taking away.

Next time: Don't take the smaller ones digit from the bigger one if it's the wrong way round. Check by adding your answer back on.

Question 6 · Answer D: 17

Missing numbers

What number goes in the box? □ − 8 = 9

How to work it out

1. Undo the take-away by adding: 9 + 8 = 17.
2. Check: 17 − 8 = 9.

If you chose…

A 18	One too many.
B 9	This is the answer to the sum, not the start number.
C 1	This takes away again – adding undoes taking away.

Next time: Use the opposite operation: adding undoes taking away.

Question 7 · Answer A: 11

Number bonds

What number goes in the box? 9 + □ = 20

How to work it out

1. Count on from 9 to 20.
2. 9 + 11 = 20, so the missing number is 11.

If you chose…

B 29	This adds 9 instead of finding what goes with it to make 20.
C 10	One too few – count on again.
D 12	One too many – count on again.

Next time: Learn your number bonds to 20. Check by adding the two numbers together.

Question 8 · Answer A: 51

Adding

Work out 34 + 17.

How to work it out

1. Add the tens first: 34 + 10 = 44.
2. Then add the ones: 44 + 7 = 51.

If you chose…

B 41	The extra ten from adding the ones has been forgotten.
C 52	One too many – check the ones.
D 50	Check the ones again.

Next time: When the ones add up to 10 or more, remember to add the extra ten.

Multiplying, dividing and fractions · Questions 9–12

Question 9 · Answer D: 22

Times tables

What is 11 × 2?

How to work it out

1. Count in 2s, 11 times.
2. 11 × 2 = 22.

If you chose…

A 13	This adds the numbers instead of multiplying.
B 20	This is one 2 too few.
C 24	This is one 2 too many.

Next time: × means ‘lots of’. Say it as ‘11 lots of 2’ and count in 2s.

Question 10 · Answer D: $^{2}/_{4}$

Recognising fractions

What fraction of the shape is shaded? (See the picture on the paper.)

How to work it out

1. The shape has 4 equal parts.
2. 2 are shaded, so $^{2}/_{4}$ is shaded.

If you chose…

A $^{4}/_{2}$	The numbers are upside down – the bottom number is the total number of parts.
B $^{2}/_{5}$	Count the parts again.
C $^{1}/_{4}$	Only one part would be shaded for this fraction – here 2 are.

Next time: The bottom number is how many equal parts in total. The top number is how many are shaded.

Question 11 · Answer A: 4

Sharing and grouping

40 counters are shared equally between 10 children. How many does each child get?

How to work it out

1. 40 ÷ 10 = 4.
2. Check: 4 × 10 = 40.

If you chose…

B 5	One too many – check by multiplying back.
C 30	This takes away instead of sharing.
D 400	This multiplies instead of sharing.

Next time: Sharing equally means dividing. Use your 10 times table backwards.

Question 12 · Answer C: 26

Doubling and halving

What is double 13?

How to work it out

1. Double 13 = 13 + 13.
2. Double the tens: 20. Double the ones: 6.
3. Together: 26.

If you chose…

A 15	Double means two lots, not add two.
B 27	One too many.
D 36	The ones and tens have been doubled, but a ten has been lost or added.

Next time: Doubling means two lots. ‘Double’ isn't the same as ‘add two’.

Money, time and measures · Questions 13–16

Question 13 · Answer C: 7 o'clock

Telling the time

What time does the clock show? (See the picture on the paper.)

How to work it out

1. The long minute hand points to 12: that means o'clock.
2. The short hour hand shows the hour, so it is 7 o'clock.

If you chose…

A half past 7	The minute hand has been read wrongly – each number is 5 minutes.
B 12 o'clock	The hands have been mixed up: the short hand shows the hour, the long hand the minutes.
D 8 o'clock	The hour is one too many – if the hour hand hasn't reached a number yet, it is still the hour before.

Next time: Read the short hand first for the hour, then the long hand for the minutes. Each number on the clock is 5 minutes for the long hand.

Question 14 · Answer B: 2 m

Estimating measures

Which is the best estimate? How tall is a door?

How to work it out

2 m is the sensible answer. Think of something you know: a ruler is 30 cm, a door is about 2 m, a bag of sugar is 1 kg.

If you chose…

A 20 m	This is far too big – check the unit.
C 2 km	This is far too big – check the unit.
D 2 cm	This is far too small – check the unit.

Next time: Know a few benchmarks: a ruler is 30 cm, a door is about 2 m, a bag of sugar is 1 kg, a big bottle of water is 1 litre.

Question 15 · Answer C: 30p

Giving change

Harry buys a toy car for 70p and pays with £1. How much change should Harry get?

How to work it out

1. £1 = 100p.
2. Count on from 70p to £1.00: 30p.

If you chose…

A 20p	This is 10p too little – count on again.
B 70p	This is the price, not the change.
D 40p	This is 10p too much – count on again.

Next time: Count on from the price to the amount paid – first to the next ten, then to the next pound.

Question 16 · Answer A: 28 cm

Comparing measures

Jack's ribbon is 21 cm. Grace's ribbon is 49 cm. How much longer is the second ribbon?

How to work it out

1. 'How much longer' means find the difference.
2. 49 − 21 = 28 cm.

If you chose…

B 38 cm	Check the subtraction.
C 49 cm	This is the bigger amount, not the difference.
D 70 cm	This adds the two amounts – 'how much longer' means find the difference.

Next time: Difference means subtract the smaller from the bigger.

Shape, data and problems · Questions 17–20

Question 17 · Answer B: 3

2-D shapes

How many corners does this shape have? (See the picture on the paper.)

How to work it out

1. The shape is a triangle.
2. It has 3 sides and 3 corners.

If you chose…

A 2	One corner has been missed – tick each one as you count.
C 4	One corner has been counted twice.
D 6	This counts the sides AND the corners.

Next time: Put a small tick on each side (or corner) as you count it, so you don't count any twice.

Question 18 · Answer B: 9

Tally charts

What number does this tally show? (See the picture on the paper.)

How to work it out

1. Each gate is 5: 1 gate = 5.
2. Add the single lines: 5 + 4 = 9.

If you chose…

A 5	Each gate (four lines with one across) is worth 5, not 1.
C 8	Each gate is 5 – don't forget the line across.
D 14	One gate has been counted twice.

Next time: Count tally gates in fives first, then count on the single lines.

Question 19 · Answer C: East

Turns and direction

Harry is facing South. Harry makes a quarter turn anticlockwise. Which way is Harry facing now?

How to work it out

1. Going clockwise the order is North, East, South, West.
2. From South, a quarter turn anticlockwise gets to East.

If you chose…

A West	This turns the wrong way – clockwise is the way clock hands move.
B North	Count the quarter turns again.
D South	Count the quarter turns again.

Next time: Stand up and try it! Clockwise is the way clock hands move. A quarter turn is one step round the compass.

Question 20 · Answer B: 4

Bar charts

Look at the chart 'Our favourite fruit'. How many more for grapes than for pears? (See the picture on the paper.)

How to work it out

1. Grapes: 10. Pears: 6.
2. 10 − 6 = 4.

If you chose…

A 5	Check the bars against the scale again.
C 10	This is just the taller bar.
D 16	This adds the two bars – 'how many more' means find the difference.

Next time: 'How many more' means find the difference – subtract. Run your finger across from the top of each bar to the scale.

Ready for more? The PrimaryTools 7+ Maths pack has Papers 2–14 in the same format, building from warm-up to elite level, with a guide like this one for every paper and a progress tracker. Find it at **primarytools.co.uk/7-plus-practice-papers**.

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