

Transcription of the Braille Version

2023 national curriculum tests

Key stage 2

Mathematics

Braille

Paper 2: reasoning

Transcription of the Braille Version

[braille page 1]

On your paper write:

Your first name

Your last name

Your date of birth

Your school name

Instructions

You must NOT use a calculator to answer any questions in this test.

You have 40 minutes to complete this test, plus your additional time allowance.

Follow the instructions for each question.

Work as quickly and as carefully as you can.

Some questions say: "Show your method." For these questions, you may get a mark for showing your method.

If you cannot do a question, go on to the next one. You can come back to it later, if you have time.

If you finish before the end, go back and check your work.

The questions are on different types of paper and diagrams are on opposite pages.

Make sure you read everything carefully.

_____ has been used in some questions to indicate a missing number.

.....

Test administration guidance

Note to test administrator

Please write the school DfE number on the pupil's braille script.

If you are acting as a scribe for a brailist, write the pupil's answers on a sheet of plain or lined paper and attach the braille diagrams showing the pupil's work.

[braille page 2]

1. Look at the four times listed below.
They are labelled PQRS.

- P 11:55
- Q 11:05
- R 11:50
- S 05:11

Write the letter of the time that is the same as 5 minutes past 11

.....

[braille page 3]

2. Look at the five temperatures below.

- 6°C
- 4°C
- 1°C
- 10°C
- 3°C

Write the temperatures in order, starting with the lowest.

Lowest _____°C
_____°C
_____°C
_____°C
_____°C

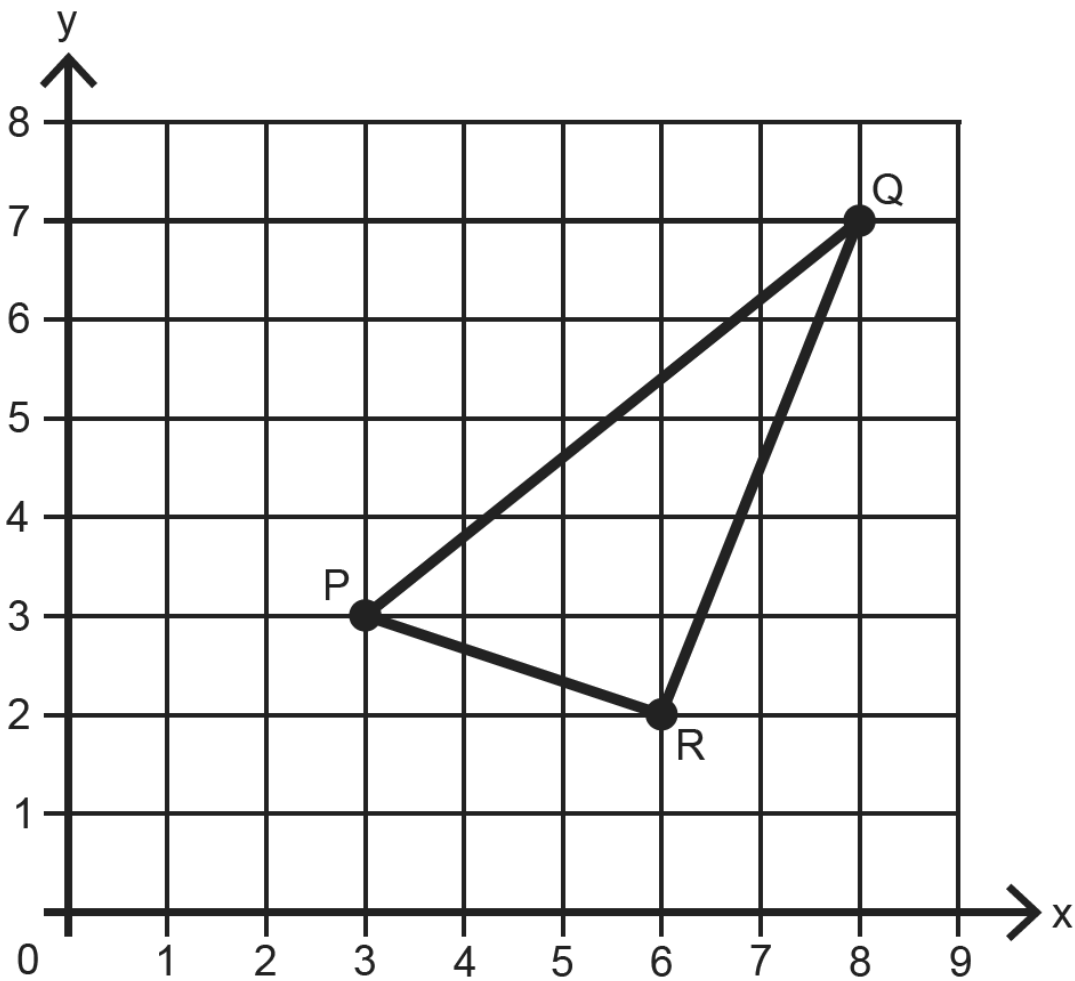
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Test administration guidance

There is no specific guidance for questions 1 – 2.

[braille page 4, facing page 5]

Diagram for Question 3



[braille page 5]

3. Look at the diagram on the opposite page.
It shows triangle PQR drawn on a grid.
What are the coordinates of point R?
(_____ , _____)
-

4. Some children choose their favourite zoo animal.
The pictogram below shows the results.

Key: :: stands for 2 children

	Number of children
penguin :: :: ::	12
elephant ... :: :: :	8
tiger :: :: :: :: ::	16
giraffe :: :	6

How many more children choose tiger than elephant?

.....

Test administration guidance

3. Ensure the pupil finds the diagram on the facing page.
4. Ensure the pupil understands the key, without indicating what number is represented by the braille sign ::

[braille page 6]

5. Cars and motorbikes are parked in a street.
A car has 4 wheels.
A motorbike has 2 wheels.
Stefan counts 3 motorbikes and 5 cars.
He counts 28 wheels altogether.
Explain why Stefan cannot be correct.
-

6. Kirsty buys 1 litre of apple juice for £1.39
She pays with a £5 note.
How much change does Kirsty get?
£ _____
-

7. Below is a number sequence.
75 50 25 _____ _____
Write the next two numbers in the sequence.
-

8. In 2012, there were 24 372 schools in the United Kingdom.
Round the number of schools to the nearest hundred.
-

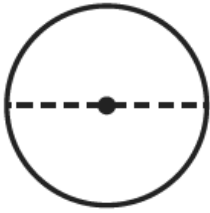
Test administration guidance

There is no specific guidance for questions 5 – 8.

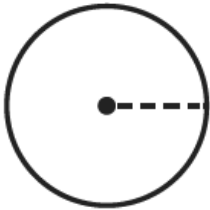
[braille page 7, facing page 8]

Diagram for Question 9

P



Q



R



[braille page 8]

9. Look at the diagram on the opposite page.
It shows three circles labelled PQR. Each circle has dashed lines.
Write the correct letter for the sentences below.
Circumference is the name of the dashed line in circle _____
Diameter is the name of the dashed line in circle _____
Radius is the name of the dashed line in circle _____
-

10. Ken thinks of a number.
He divides it by 3
The answer is 72
What number was Ken thinking of?
-

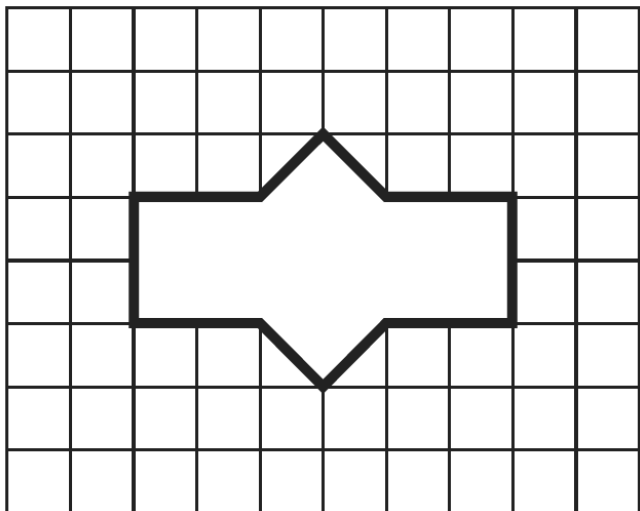
11. a) Write the number that is one thousand more than 19 039
- b) Write the number that is one hundred less than 19 039
-

Test administration guidance

9. Ensure the pupil finds the diagram on the facing page.
11. Encourage the pupil to braille a before the answer to part a, and b before the answer to part b.

[braille page 9, facing page 10]

Diagram for Question 12



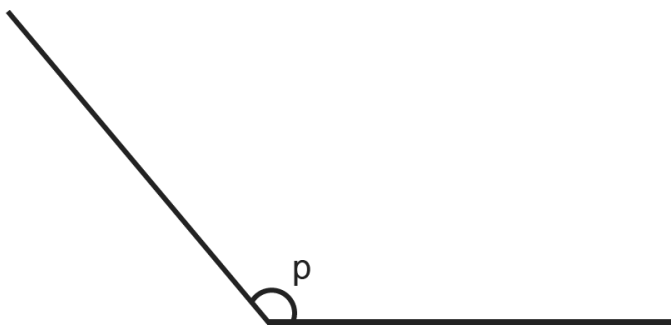
[braille page 10]

12. You have a shape for this question.
Look at the diagram on the opposite page.
It shows a shape on a grid.
Draw all the lines of symmetry on this shape.
Use a ruler.
-

13. $\frac{1}{5}$ of a number is 22
What is the number?
-

[braille page 11, facing page 12]

Diagram for Question 14



Test administration guidance

12. Ensure the pupil finds the diagram on the facing page. Provide the pupil with the cut-out shape for this question. A separate copy of the diagram on thermoform and two film copies are provided. The pupil will need an appropriate ruler.

You may mount the separate diagram on a board so that the pupil can use pins and bands or other tactile aids. You should then transcribe the pupil's work on the spare copy of the diagram.

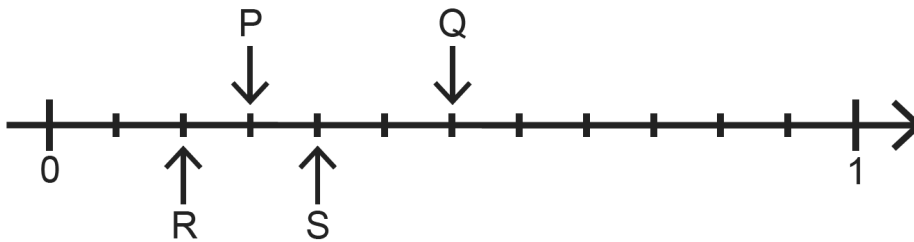
No tactile aids (i.e. 'blobs', bluetack, wikkisticks) should be sent with the pupil's braille script.

[braille page 12]

14. Look at the diagram on the opposite page.
Measure angle p.
p is _____°
-

[braille page 13, facing page 14]

Diagram for Question 15



[braille page 14]

15. Look at the diagram on the opposite page.
It shows a number line with four arrows labelled PQRS.

Write the correct letter for each of the four fractions below.

$\frac{1}{3}$ is _____

$\frac{1}{6}$ is _____

$\frac{1}{4}$ is _____

$\frac{1}{2}$ is _____

.....

16. One day last year, the rate of rainfall from 6:30 am until 9:00 am was 2 millimetres per hour.
What was the total rainfall from 6:30 am until 9:00 am?
_____ mm
-

Test administration guidance

14. Ensure the pupil finds the diagram on the facing page. They will need an appropriate angle measurer.
15. Ensure the pupil finds the diagram on the facing page.

[braille page 15]

17. The manager of a flower shop orders 4 boxes of red roses.
There are 50 roses in each box.
The manager makes bunches with 6 roses in each bunch.
What is the greatest number of bunches that can be made?
Show your method.
-

18. A cinema sells tickets at three different prices.
 $\frac{1}{20}$ of the tickets are price A.
 $\frac{3}{5}$ of the tickets are price B.
The rest of the tickets are price C.
What fraction of the tickets are price C?
Show your method.
-

19. Write the missing number to make the division below correct.
 $15\ 000 \div \underline{\quad} = 75$
-

[braille page 16]

20. In this question _ stands for a missing digit.
Write the missing digits to make these two multiplications correct.
- a) $_235 \times 3 = 9705$
b) $235 \times _0 = 11\ 750$
-

[braille page 17]

21. The height of the tallest person in history is 8 feet 11 inches.
One foot is 30 centimetres.
One inch is 2.5 centimetres.
Use this information to calculate the height of the tallest person,
in centimetres.
Show your method.
 $\underline{\quad}$ cm
-

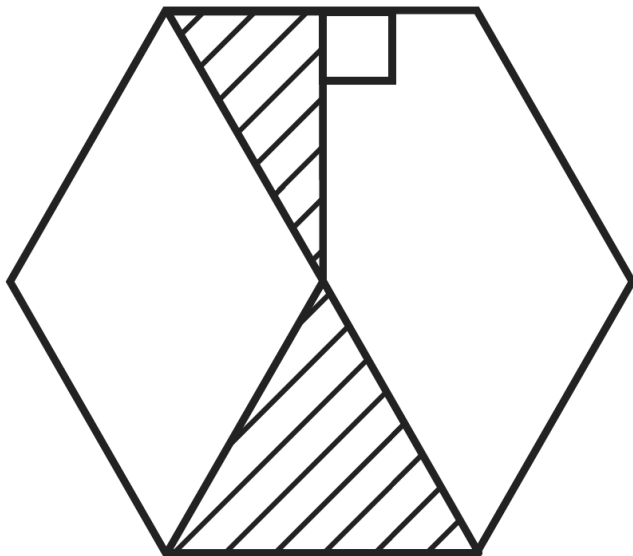
Test administration guidance

20. You may explain to the pupil that in this question _ stands for a missing digit.
So 45_9 would be brailled #45_9
If the missing digit is at the front of a number, e.g. _459, this would be brailled as #_459

Encourage the pupil to braille a before the answer to part a, and b before the answer to part b.

[braille page 18, facing page 19]

Diagram for Question 22



[braille page 19]

22. Look at the regular hexagon on the opposite page.
The area of the large shaded triangle is double the area of the small shaded triangle.
What fraction of the whole hexagon is the shaded area?
-

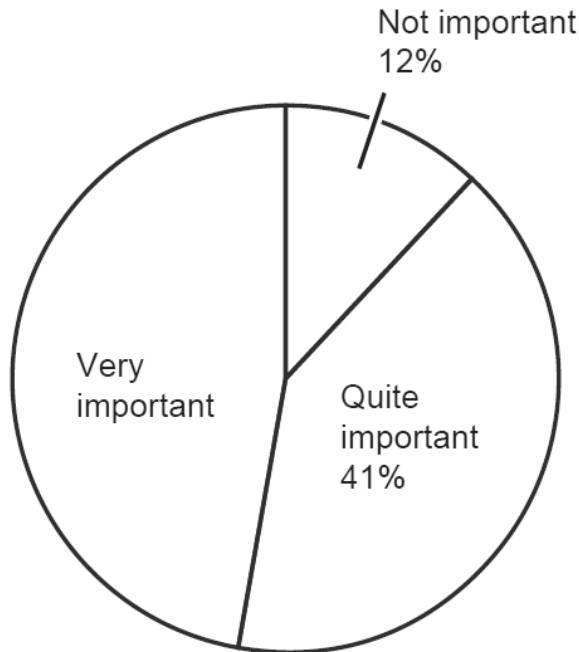
23. A small box contains 650 grams of cereal.
A large box contains 20% more cereal.
One portion of cereal is 40 grams.
How many full portions are in a large box?
Show your method.
_____ portions
-

Test administration guidance

22. Ensure the pupil finds the diagram on the facing page.

[braille page 20, facing page 21]

Diagram for Question 24



[braille page 21]

24. Look at the diagram on the opposite page.
1200 pupils were asked this question:
How important is it to have a break when using a screen?
The chart on the opposite page shows the results.
How many pupils answered 'Very important'?
_____ pupils
-

[braille page 22]

25. There are 25 sheets of paper in a small pack.
There are 500 sheets in a large pack.
- a) How many small packs make one large pack?
- b) The mass of the paper in the large pack is 2.4 kilograms.
What is the mass of one sheet of paper, in grams?
Show your method
_____ g
-

Test administration guidance

24. Ensure the pupil finds the diagram on the facing page.
25. Encourage the pupil to braille a before the answer to part a, and b before the answer to part b.

[braille page 23]

26. The formula below is used to estimate the mass (in kilograms) of young children.

$$\text{mass} = 2 \times (\text{age in years} + 5)$$

a) Stefan's sister is 4 years of age.
Use the formula to estimate her mass.
_____ kg

b) The mass of Megan's brother is 16 kilograms.
Use the formula to estimate his age.
_____ years

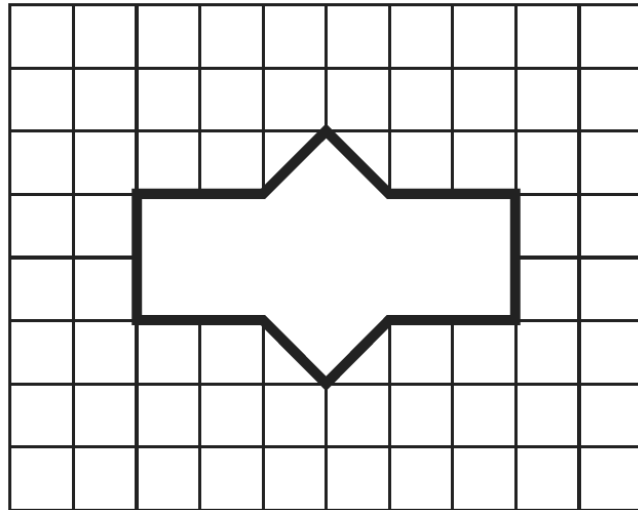
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END OF TEST

Test administration guidance

26. Encourage the pupil to braille a before the answer to part a, and b before the answer to part b.

Diagram and film copies for Question 12



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Braille transcript

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