

Transcription of the Braille Version

2019 national curriculum tests

Key stage 2

Mathematics

Braille

Paper 3: 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 braillist, 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. The original price of a car is £8999
In a sale there is £1100 off the original price.
What is the sale price of the car?
£_____
-

2. Look at the number below.
3 576 219
- a) Which digit is in the ten thousands place?
- b) Round 3 576 219 to the nearest million.
-

[braille page 3]

3. Dev had £10
He gave some money away.
 p is the amount of money, in pounds, that Dev gave away.
Look at the five expressions below.
 $10 + p$
 $10 \div p$
 $p - 10$
 $10 - p$
 $p \times 10$
Write the expression that shows how much money Dev has left.
-

4. Look at the four masses below.
1.25 kg
0.99 kg
1.025 kg
0.009 kg
Write the masses in order, starting with the lightest.
lightest _____

-

[braille page 4]

5. In this question \therefore stands for a missing digit.
Look at the addition below.

$$\begin{array}{r} \therefore \therefore \\ \therefore 2 \therefore + \therefore 2 = 200 \\ \therefore \end{array}$$

Copy and complete the addition to make it correct.

.....

Test administration guidance

2. Encourage the pupil to write a) before the answer to part a and b) before the answer to part b.
5. In this question the 'visible space' symbol \therefore and the numeric passage indicators $\therefore\therefore$ and $\therefore.$ have been used.

$\therefore\therefore$
 $\therefore\therefore \therefore \therefore\therefore \therefore\therefore \therefore\therefore$
 $\therefore.$

6. John buys one toy car and one pack of stickers.
The toy car costs £1.49
The pack of stickers costs £1.64
He pays with a £10 note.
How much change does John get?
Show your method.
-

[braille page 5]

7. The list below shows the masses of eight kittens.
305 g 375 g 310 g 255 g
275 g 410 g 360 g 345 g

a) What is the difference in mass between the heaviest kitten and the lightest kitten?

_____ g

b) How many kittens have a mass between 250 g and 299 g?

c) How many kittens have a mass between 300 g and 349 g?

d) How many kittens have a mass between 350 g and 399 g?

.....

8. Ken is playing a game.
He has 4289 points.
Then he scores another 355 points.
Ken's target is 6000 points.
How many **more** points does Ken need to reach his target?
Show your method.
-

[braille page 6, facing page 7]

Diagram for question 9

Number of satellites in 2016



[braille page 7]

9. The pictogram on the opposite page shows the number of satellites above the Earth in 2016.

Each circle represents 1000 satellites.

How many satellites were above the Earth in 2016?

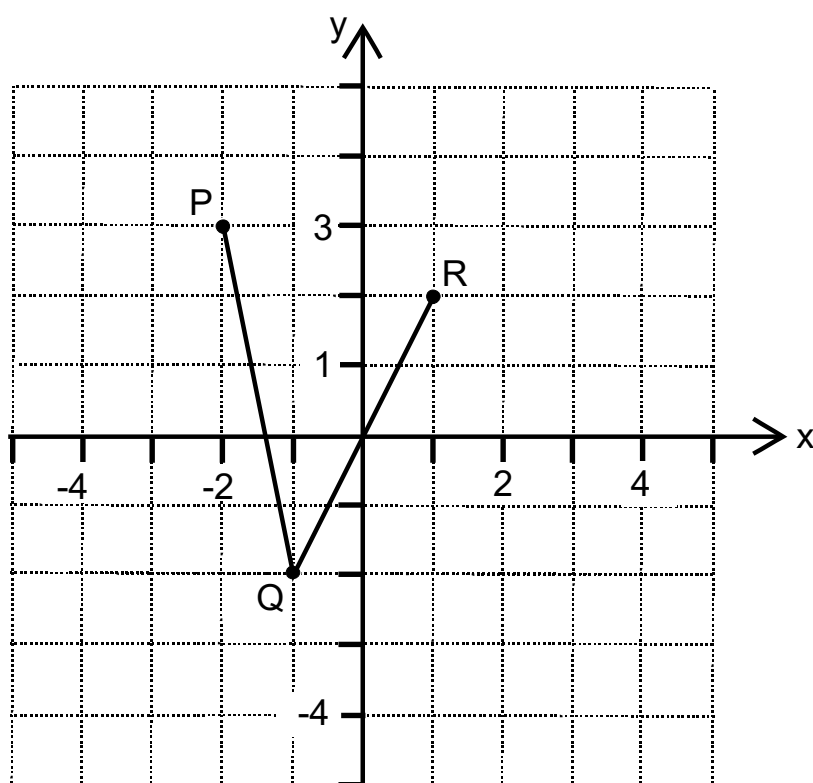
.....

Test administration guidance

7. Encourage the pupil to write a) before the answer to part a, b) before the answer to part b, c) before the answer to part c, and d) before part the answer to part d.
9. Ensure the pupil finds the diagram on the facing page.

[braille page 8, facing page 9]

Diagram for question 10



[braille page 9]

10. Look at the grid on the opposite page.
Three points P Q and R are joined by two lines.
Lara plots another point S on the grid at $(-1, 2)$
She joins the points to make a quadrilateral PQRS.

- a) Mark point S on the grid.
- b) Lara then translates the quadrilateral 4 squares to the right.
Write the new coordinates of the point P.
(____, ____)
-

[braille page 10]

11. In this question you may use each number more than once.
Look at the list of four numbers below.
3 4 5 6

- a) Write the prime numbers from the list.
- b) Write the factors of 12 from the list.
- c) Write the factors of 15 from the list.
-

Test administration guidance

10. Separate copies of the diagram are provided on thermoform and plastic film. Teachers may mount the separate diagram on a board so that the pupil can use pins or other tactile aids.

Teachers 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 transcript.

11. Encourage the pupil to write a) before the answer to part a, b) before the answer to part b and c) before the answer to part c.

12. Amina's bed is 190 cm in length and 91 cm in width.
She is making a one-tenth scale model of the bed.
What are the length and width of Amina's model?
length = _____ cm
width = _____ cm
-

[braille page 11]

13. Kirsty says that when you double the size of an acute angle, you always get an obtuse angle.
Explain why Kirsty is **not** correct.
-

14. How many days are there in September, October and November altogether?
_____ days
-

15. The International Space Station orbits the Earth at a height of 250 miles.
What is the height of the International Space Station in kilometres?
Use 8 kilometres equals 5 miles.
_____ km
-

[braille page 12]

16. Potatoes cost £1.50 per kg.
Carrots cost £1.80 per kg.
Jack buys $1\frac{1}{2}$ kg of potatoes and $\frac{1}{2}$ kg of carrots.
Work out how much change he gets from £5
Show your method.
£_____
-

17. Look at the equation below.
 $x + 2y = 20$
 x and y are whole numbers less than 10
What could x and y be?
 $x =$ _____
 $y =$ _____
-

18. Look at the five fractions below.

$$\frac{1}{2}$$
$$\frac{2}{8}$$
$$\frac{3}{4}$$
$$\frac{7}{16}$$
$$\frac{24}{32}$$

Write the fractions that are less than $\frac{5}{8}$

.....

Test administration guidance

There is no specific guidance for questions 13 – 18.

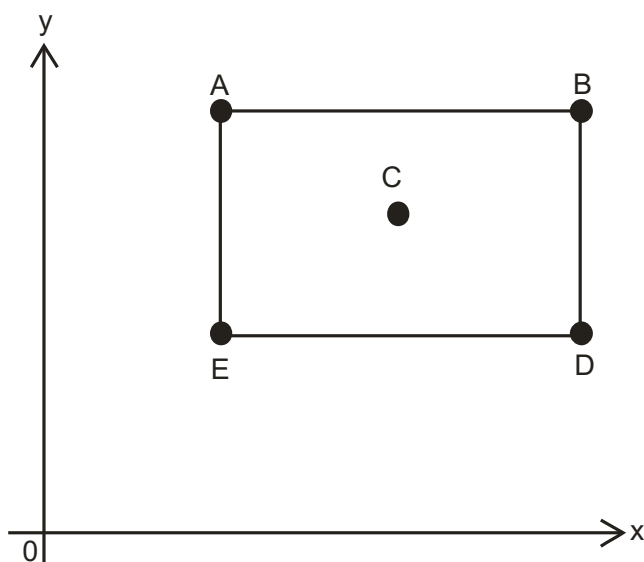
[braille page 13]

19. Layla makes jewellery to sell at a school fair.
Each bracelet has 53 beads.
She makes 68 bracelets.
Each necklace has 105 beads.
She makes 34 necklaces.
How many beads does Layla use altogether?
Show your method.
_____ beads

20. Adam is making booklets.
Each booklet must have 34 sheets of paper.
He has 2 packets of paper.
There are 500 sheets of paper in each packet.
How many complete booklets can Adam make from 2 packets of paper?
Show your method.
_____ booklets

[braille page 14, facing page 15]

Diagram for question 21



[braille page 15]

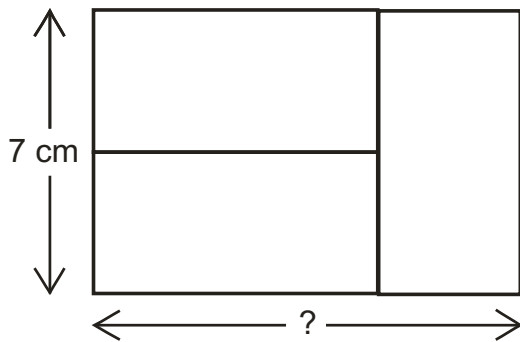
21. Look at the diagram on the opposite page.
It is not to scale.
ABDE is a rectangle on coordinate axes.
The sides of the rectangle are parallel to the axes.
The coordinates of A are (25, 30)
The coordinates of C are (40, 22)
Point C is the centre of the rectangle.
Work out the coordinates of B and D.
B is (____, ____)
D is (____, ____)

Test administration guidance

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

[braille page 16, facing page 17]

Diagram for question 22



[braille page 17]

22. Look at the diagram on the opposite page.

It is not actual size.

Three identical rectangles are arranged to make a larger rectangle.

The width of the larger rectangle is 7 cm.

Calculate the length of the larger rectangle.

_____ cm

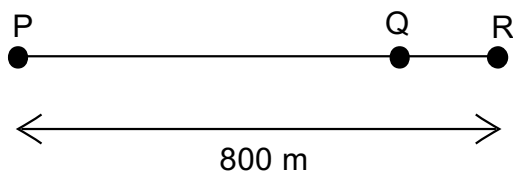
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Test administration guidance

There is no specific guidance for question 22.

[braille page 18, facing page 19]

Diagram for question 23



[braille page 19]

23. Look at the diagram on the opposite page.

It is not to scale.

The distance from point P to point R is 800 metres.

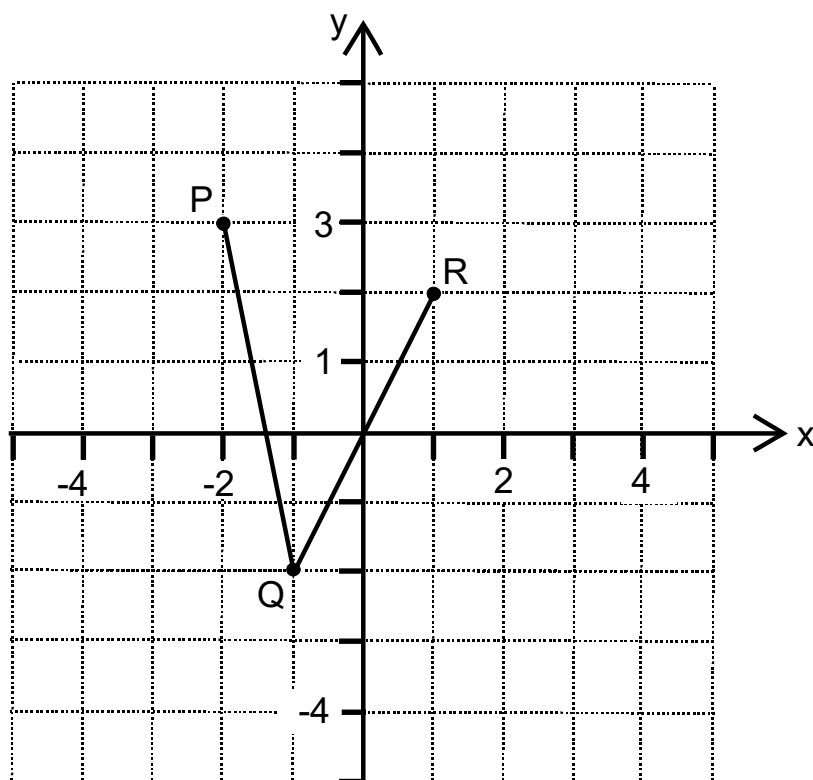
The distance from point P to point Q is 4 times the distance from point Q to point R.

Olivia says that it is 600 metres from point P to point Q.

Explain why Olivia is **not** correct.

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END OF TEST

Diagram and film copies for question 10



Test administration guidance

There is no specific guidance for question 23.

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Braille transcript

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