Transcription of the Braille Version
2017 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**

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.
1. William asks the children in Year 2 and Year 6 if they walk to school. The graph on the opposite page shows the results.
   
   a) Altogether, how many children don't walk to school?
   
   b) How many more Year 6 children than Year 2 children walk to school?

2. Look at the five numbers below.
   9700  907  9007  970  9070
   Write the number that is 10 times greater than nine hundred and seven.

3. a) \( 9 \times \_\_ \_ = 63 \)
   Write the missing number.
   
   b) \( \_\_ \_ \times 8 = 48 \)
   Write the missing number.
Test administration guidance

1. Ensure the pupil finds the graph on the facing page. Encourage the pupil to braille a) before the answer to part a and b) before the answer to part b.

3. Encourage the pupil to braille a) before the answer to part a and b) before the answer to part b.
4. The table below shows the heights of three mountains.

<table>
<thead>
<tr>
<th>Mountain</th>
<th>Height in metres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mount Everest</td>
<td>8848</td>
</tr>
<tr>
<td>Mount Kilimanjaro</td>
<td>5895</td>
</tr>
<tr>
<td>Ben Nevis</td>
<td>1344</td>
</tr>
</tbody>
</table>

How much higher is Mount Everest than the combined height of the other two mountains?
Show your method.
_____ m

5. Look at the table below.

<table>
<thead>
<tr>
<th>Number</th>
<th>1000 more</th>
</tr>
</thead>
<tbody>
<tr>
<td>3500</td>
<td>4500</td>
</tr>
<tr>
<td>85</td>
<td>p</td>
</tr>
<tr>
<td>q</td>
<td>9099</td>
</tr>
<tr>
<td>r</td>
<td>15250</td>
</tr>
</tbody>
</table>

Complete the table by writing the values of p, q and r
p = ____
q = ____
r = ____

6. Look at the four numbers below.
1.9 0.96 1.253 0.328
Write these numbers in order of size, starting with the smallest.
smallest ____
_____  ____

7. a) 60 months = ____ years
Write the missing number.

b) 72 hours = ____ days
Write the missing number.

c) 84 days = ____ weeks
Write the missing number.
Test administration guidance

7. Encourage the pupil to braille a) before the answer to part a, b) before the answer to part b, and c) before the answer to part c.
8. At the start of June, there were 1793 toy cars in the shop. During June, 8728 more toy cars were delivered. 9473 toy cars were sold. How many toy cars were left in the shop at the end of June? Show your method.

[braille page 7, facing page 8]
Diagram for question 9

P

Q

R

S

[braille page 8]
9. Look at the four shapes on the opposite page. They are labelled P Q R and S. Write the letters of the TWO shapes that have $\frac{3}{4}$ shaded.

10. a) Round 84516 to the nearest 10

    b) Round 84516 to the nearest 100

    c) Round 84516 to the nearest 1000
Test administration guidance

9. Ensure the pupil finds the four shapes on the facing page.

10. Encourage the pupil to braille a) before the answer to part a, b) before the answer to part b, and c) before the answer to part c.
11. The rule below shows the time it takes to cook a chicken.

Cooking time = 20 minutes plus an extra 40 minutes for each kilogram

a) How many minutes will it take to cook a 3 kg chicken? _____ minutes

b) What is the mass of a chicken that takes 100 minutes to cook? _____ kg

12. You have a hexagonal prism for this question.

a) How many faces does it have?

b) How many vertices does it have?

13. Ally and Jack buy some stickers.
   Ally buys a pack of 12 stickers for £10.49
   Jack buys 12 single stickers for 99p each.
   How much more does Jack pay than Ally?
   Show your method.
   £ _____

   For every 3 seeds Amina planted, only 2 seeds grew.
   Altogether 12 seeds grew.
   How many seeds did Amina plant?

15. The year below is written in Roman numerals.
   MMVI
   Write the year in figures.

16. How many degrees are there in one and a half turns? _____°
Test administration guidance

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

12. Provide the pupil with the solid shape for this question. Encourage the pupil to braille a) before the answer to part a and b) before the answer to part b.
Diagram for question 17

17. Look at the diagram on the opposite page.
   It shows a line joining two points on a coordinate grid.
   The vertices of a quadrilateral have these coordinates.
   (1, 4) (4, 2) (2, –3) (–2, 4)
   One side of the quadrilateral has been drawn on the grid.
   Complete the quadrilateral.
   Use the separate copy of the diagram.
   Use a ruler.

18. A cat sleeps for 12 hours each day.
   50% of its life is spent asleep.
   A koala sleeps for 18 hours each day.
   What percentage of the koala's life is spent asleep?
   ____ %
Test administration guidance

17. Teachers may mount the separate diagram on a board so that the pupil can use pins and bands or the coordinates can be marked on a film copy of the diagram.

Teachers should then transcribe the pupil’s work on the spare copy of the diagram.

No tactile aids (ie 'blobs', bluetack, wikkisticks) should be sent with the pupil’s braille script.
19. Amina posts three large letters. 
   The postage costs the same for each letter.
   She pays with a £20 note.
   Her change is £14.96
   What is the cost of posting ONE letter?
   Show your method.
   £ ____

20. Adam says that 0.25 is smaller than \( \frac{2}{5} \)
   Explain why he is correct.

21. On a map, 1 cm represents 20 km.
   The distance between two cities is 250 km.
   On the map, what is the distance between the two cities?
   Show your method.
   ____ cm

[braille page 15, facing page 16]
Diagram for question 22

[braille page 16]
22. Look at the diagram on the opposite page.
   Two triangles are shown on a square grid.
   The triangles are similar and right-angled.
   Write the ratio of side p to side q
   \( p : q = ____ : _____ \)
Test administration guidance

22. Ensure the pupil finds the two shapes in the diagram on the facing page.
Diagram for question 23

23. Look at the circle on the opposite page.
    In the circle, $\frac{1}{4}$ and $\frac{1}{6}$ are shaded.
    What fraction of the whole circle is NOT shaded?
    Show your method.

END OF TEST
Test administration guidance

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