## 2020 national curriculum tests

## Key stage 2

## Mathematics <br> Paper 2: reasoning

This is the Key Stage 2 Mathematics Paper 2: Reasoning. You will need a pen and something to record your answers on.

- You must not use a calculator to answer any questions in this test.
- You have as much time as you need to answer these questions.
- Follow the instructions for each question.
- Work as carefully as you can. If you need to do working out, you can use the space around the question.
- Some questions have a method box. 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 finish before the end, go back and check your work.
- The number in the bottom right corner of each page tells you the number of marks available for each question.
- If you have any questions during the test, feel free to send a message to [teacher name]
- You can talk to each other.
- You may now start the test.

Put the numbers in the correct positions in the Carroll diagram:
$472 \quad 76 \quad 8,476 \quad 0.2$

|  | The number of pencils in <br> Oak | The number of hairs on your <br> head |
| :--- | :--- | :--- |
| The length of a piece of <br> string, in cm |  |  |
| Your neighbour's lucky <br> number |  |  |

2) Two shops, $A$ and $B$, both sell bouncy balls.


| Shop B |
| :---: |
| bouncy balls |
| 5 for $45 p$ |

At which shop are the bouncy balls the most bouncy? Explain your reasoning.
3) I'm thinking of a number. I take away 2 and then add 2 on. |The answer is 12.

What is the number I am thinking of? $\square$

Miss Brown says the missing number is 100 . Is s/he correct?


Mrs Mays asked 60 children to choose their favourite flavour of jelly. These were his/her results.

| Flavour | Number of <br> children |
| :--- | :---: |
| Raspberry | 12 |
| Lemon | 8 |
| Orange | 15 |
| Blackcurrant | 25 |
| Total | $\mathbf{6 0}$ |

a) What is your favourite flavour of jelly?
b) What is your family's favourite flavour of jelly?
c) Does this change the results?

Circle the best number.
95
89
87

Explain how you know the other numbers are not the best.



Has it been warmer or colder today?

Amina is shopping. She says,


Why does Amina need so much cheese?

a) What fraction of her daily allowance of chocolate has Mrs Mays eaten?
b) How much has she got left to eat?
c) What is this as a percentage?

## Q10

Oak have been saving money to buy Miss Chunara the best present ever. How much money have they saved?

| Hundreds | Tens | Ones | Tenths | Hundredths |
| :---: | :---: | :---: | :---: | :---: |
| 100 |  |  |  |  |

