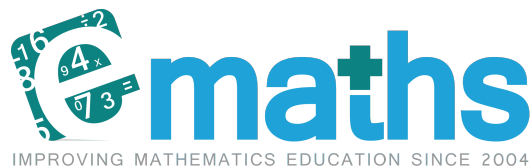


National curriculum tests

# Key stage 2

## Practice Paper: Reasoning R2

|               |     |  |       |  |      |  |
|---------------|-----|--|-------|--|------|--|
| First name    |     |  |       |  |      |  |
| Middle name   |     |  |       |  |      |  |
| Last name     |     |  |       |  |      |  |
| Date of birth | Day |  | Month |  | Year |  |
| School name   |     |  |       |  |      |  |



# Key Stage 2 National Curriculum Tests - Practice Paper - Reasoning

## Instructions

You **may not** use a calculator to answer any questions in this test.

### Questions and answers

You have **40 minutes** to complete this test.

Follow the instructions for each question.

Work as quickly and as carefully as you can.

If you need to do working out, you can use the space around the question.

Do not write over any barcodes.

**Some questions have a method box like this:**

Show your method

For these questions you may get a mark for showing your method.

If you cannot do one of the questions, **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.**

### Marks

The number under each line at the side of the page tells you the maximum number of marks for each question.

**1** Write the missing number.

One is done for you.

170      is 20 more than      150  
 $\xrightarrow{\hspace{10em}}$

     is 20 more than      387  
 $\xrightarrow{\hspace{10em}}$

1 mark

**2** A packet of paper has 170 sheets

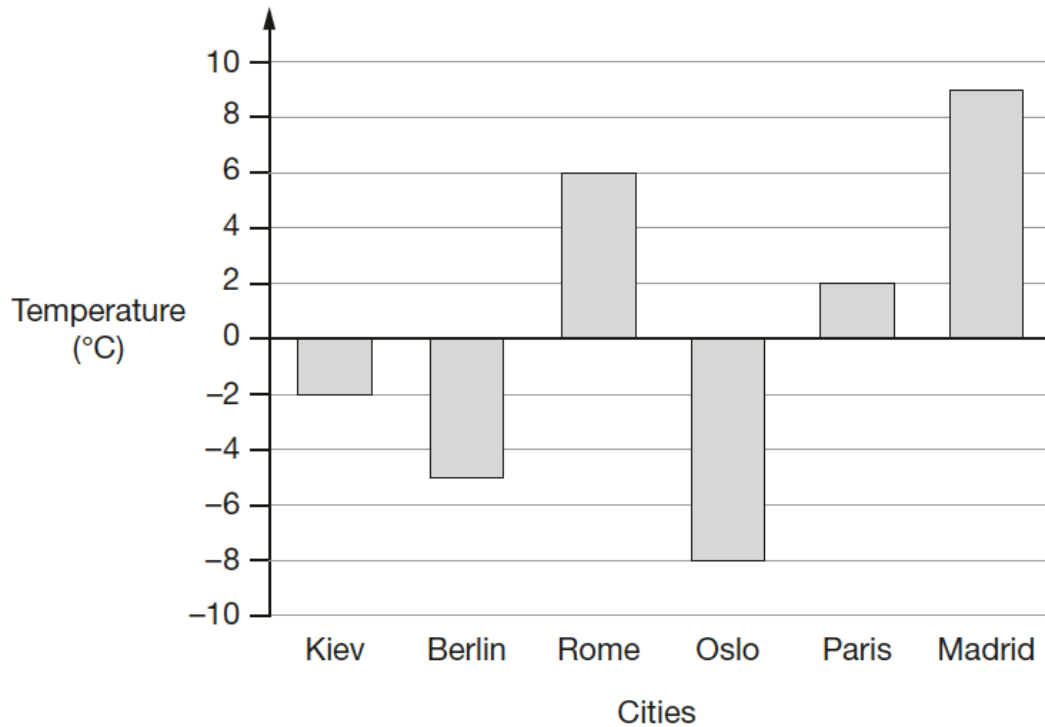
4 children each take 8 sheets

How many sheets of paper are left in the packet?

Show your method

2 marks

- 3 This graph shows the temperature in six cities on a day in January.



Which city was 7 degrees **colder** than Paris?

\_\_\_\_\_

1 mark

What was the **difference** between the temperature in **Paris** and the temperature in **Madrid**?

°C

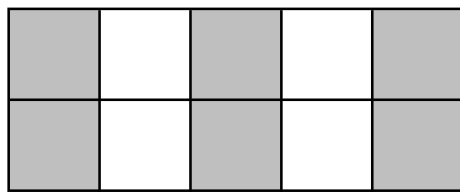
1 mark

4 Here are some shapes made of squares.

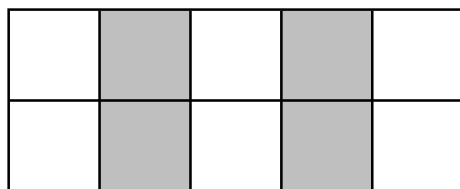
A fraction of each shape is shaded.

Match each shape to its equivalent fraction.

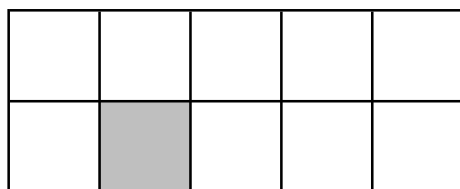
One has been done for you.



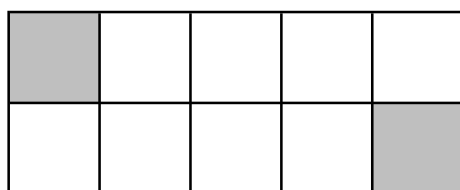
$$\frac{1}{10}$$



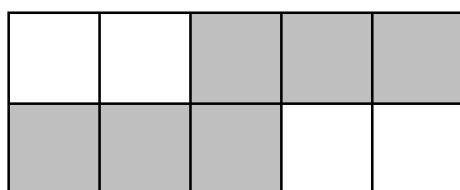
$$\frac{2}{10}$$



$$\frac{1}{2}$$



$$\frac{6}{10}$$



$$\frac{2}{5}$$

2 marks

5

What is **396** minutes in hours and minutes?

hours          minutes

---

1 mark

6

Julie's watch shows five minutes past nine.

The watch is nineteen minutes fast



What is the correct time?

---

1 mark

**7** In the squares, write a multiple that belongs to each set.

One has been done for you.

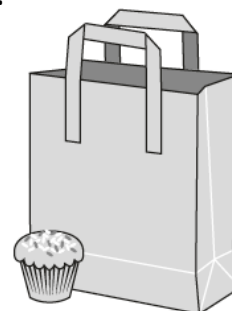
|                         |             |    |    |
|-------------------------|-------------|----|----|
| numbers from 1 to 99    | multiple of | 10 | 50 |
| numbers from 101 to 199 | multiple of | 20 |    |
| numbers from 201 to 299 | multiple of | 30 |    |
| numbers from 301 to 399 | multiple of | 40 |    |

---

2 marks

8 Maria bakes cakes and sells them in bags.

She uses this formula to work out how much to charge for one bag of cakes.



$$\text{Cost} = \text{number of cakes} \times 25 \text{ p} + 20 \text{ p for the bag}$$

How much will a bag of 10 cakes cost?

£

1 mark

Olivia buys a bag of cakes for £5.70

Use the formula to calculate how many cakes are in the bag.

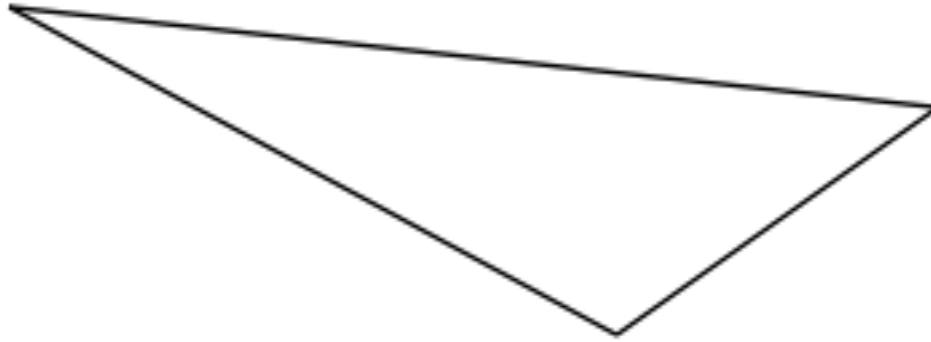
Show  
your  
method

cakes

2 marks



9 Here is a triangle.



Measure the shortest side accurately, in centimetres.

 cm

1 mark

Measure the largest angle.

 °

1 mark

10

Write the missing digits to make this long multiplication correct.

$$\begin{array}{r}
 \phantom{\times} \phantom{0} \phantom{0} 4 \square \\
 \times \phantom{0} \square 4 \\
 \hline
 \phantom{\times} \phantom{0} 1 \phantom{0} 7 \phantom{0} 2 \\
 \phantom{\times} \phantom{0} 8 \phantom{0} 6 \phantom{0} 0 \\
 \hline
 1 \phantom{0} 0 \phantom{0} 3 \phantom{0} 2
 \end{array}$$

---

 2 marks

- 11 Here is a number written in Roman numerals.

CXLVIII

Write the number in figures

1 mark

- 12 What number is halfway between 1.3 and 2.2 ?

1 mark

- 13 Round 326,162

to the nearest 10,000

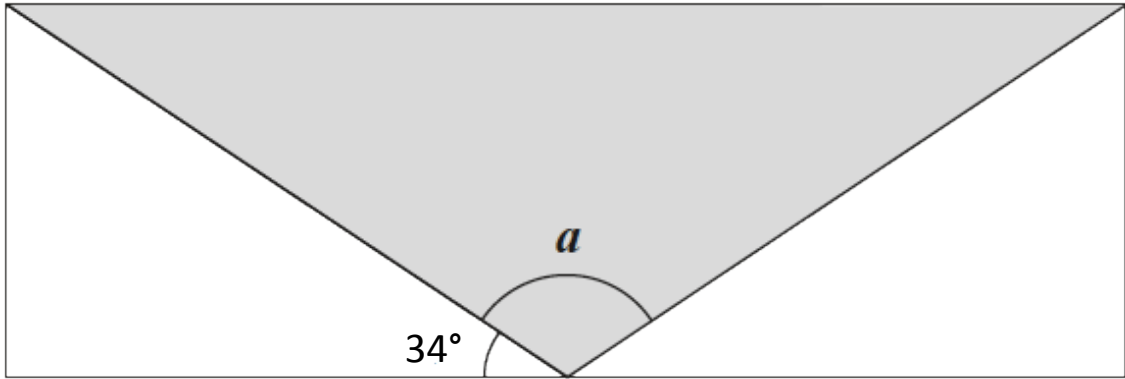
to the nearest 1,000

to the nearest 100

2 marks

R2

14 A shaded isosceles triangle is drawn inside a rectangle.



Not to scale

Calculate the size of angle  $a$ .

Show your method

$a$  is  °

2 marks

**15** Large pizzas cost £9.50 each.

Small pizzas cost £6.55 each.

5 children together buy 2 large pizza and 3 small pizzas.

They share the cost equally.

How much does each child pay?

Show your method

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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2 marks

16 Seven children measure their heights.

| Child  | Height (cm) |
|--------|-------------|
| Stefan | 145         |
| Lara   | 135         |
| Olivia | 142         |
| Chen   | 140         |
| Maria  | 151         |
| Dev    | 152         |
| Sarah  | 143         |

What is the mean height of the children?

Show your method

cm

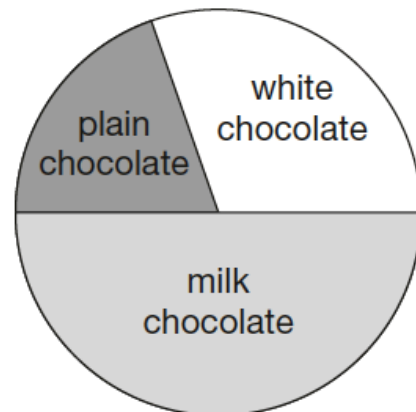
2 marks

17 40 girls and 90 boys were asked which kind of chocolate they like best.

These two pie charts show the results.



40 girls



90 boys

Dev says,

"The pie charts show that more girls than boys liked milk chocolate best."

Dev is wrong.

Explain how you know.

A large, empty, cloud-shaped box with a scalloped border, intended for the student to write their explanation.

1 mark

18 One gram of gold costs £33.14

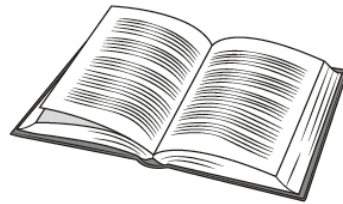
What is the cost of half a kilogram of gold?

Show your method

|   |
|---|
| £ |
|---|

2 marks

19 On Saturday, Lara read  $\frac{2}{5}$  of her book.



On Sunday, she read the other 60 pages to finish her book.

How many pages are there in Lara's book?

Show your method

|       |
|-------|
| pages |
|-------|

2 marks