

National curriculum tests

Key Stage 2

Mathematics

Practice Paper 3-1: reasoning

First name						
Middle name						
Last name						
Date of birth	Day		Month		Year	
School name						
DfE number						

Time: 40 minutes.
No calculators allowed.
35 marks



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 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.**

Marks

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

1

The numbers in this sequence decrease by 12 each time

Write the missing numbers

102

78

66

42

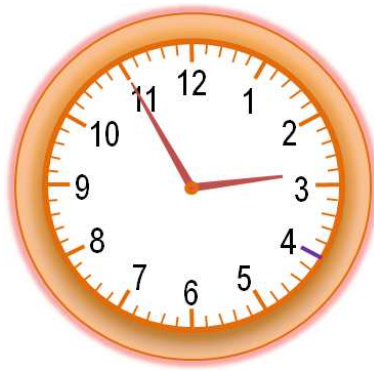


2 mark

Ref: 3C1

2

What time is it in the afternoon (✓).



15:05

14:55

13:11

11:15

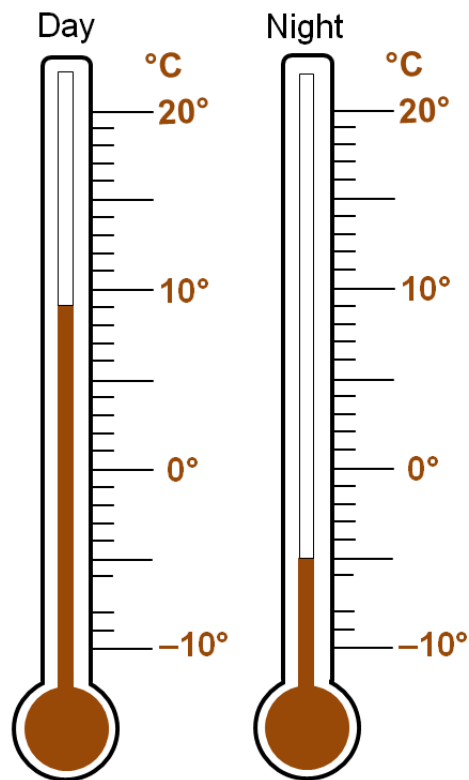


1 mark

Ref: 4M4b

3

The thermometers show the temperature at day and night.



What is the difference between the two temperatures?

 °C

1 mark

Yesterday the temperature was 2 degrees lower at night.

What was the temperature at night yesterday?


 °C

1 mark

Ref: 6N5

4 Some boys and girls went swimming.

14 more girls than boys went swimming

Key  = children

Boys	
Girls	

Complete the key

1 mark

How many children went swimming altogether

Children

1 mark

Ref: 6A2

5

Order these decimals starting with the smallest.

0.321

0.239

0.402

0.41

0.09

smallest

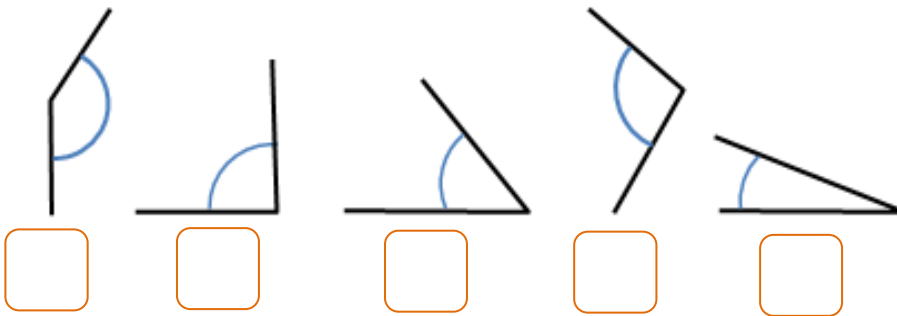


1 mark

Ref: 5F8

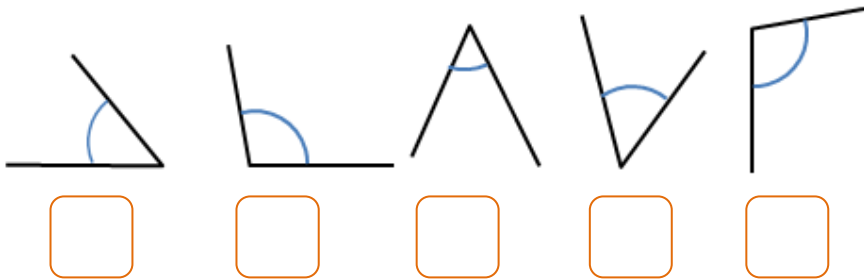
7

Order these angles by size with 1 the smallest



1 mark

Mark each angle as acute (A) or Obtuse (O)



1 mark

Ref: 4G4

9

Here is part of the train timetable from Grimsby to London.

Grimsby	09:34	15:45
London	12:28	<input type="text"/>

How long does it take the 09:34 train to get to London

hours

minutes



1 mark

The 15:45 train takes the same time to get to London

Complete the timetable

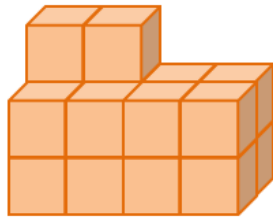


1 mark

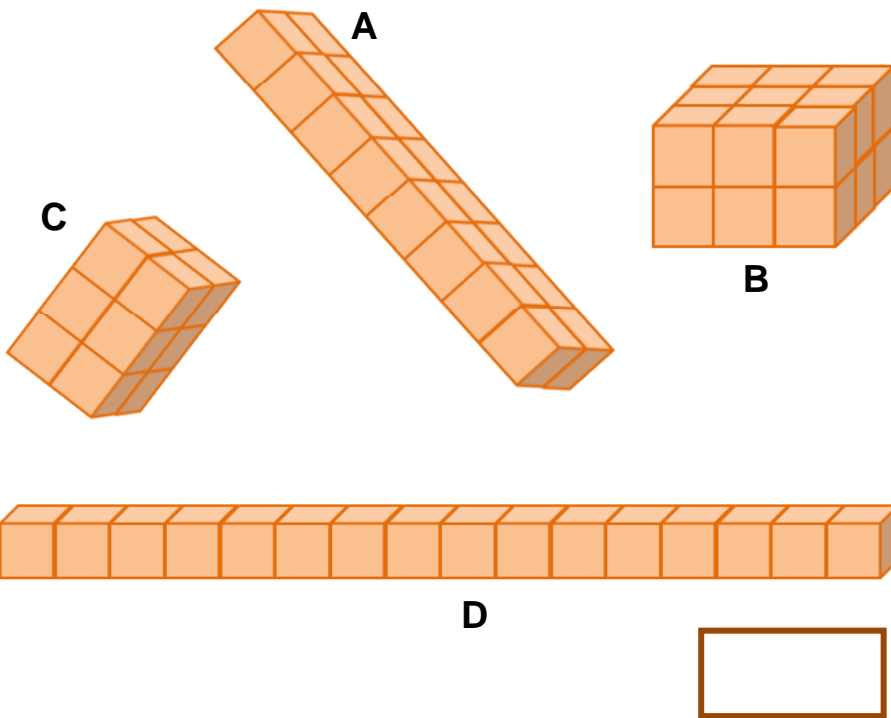
Ref: 5S1

10

Poppy made a shape with some blocks.



Write the letter of the shape that has the same volume



1 mark

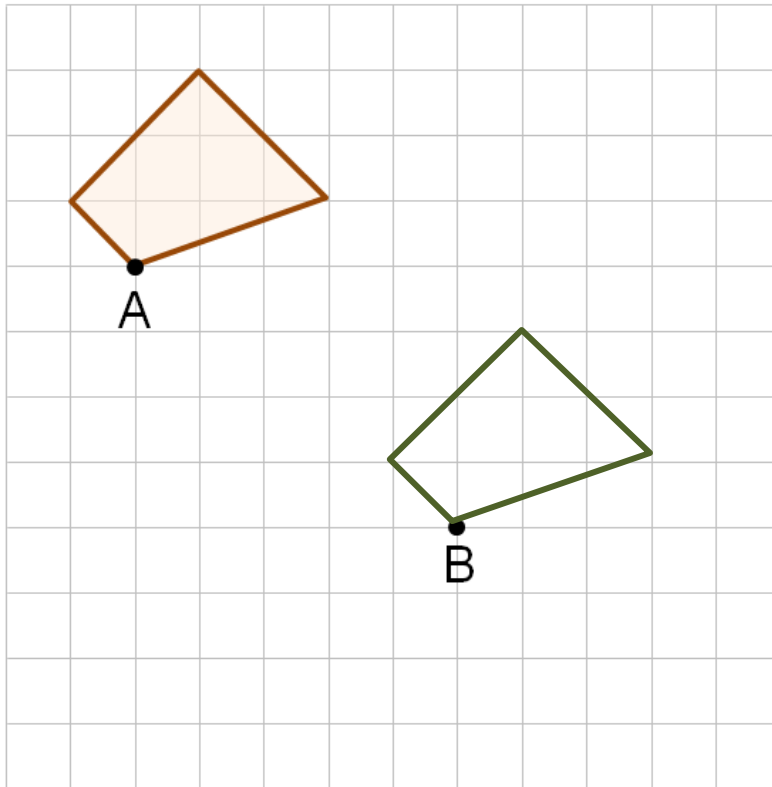
Ref: 5M8

13 Look at the shaded shape on a grid.

The shape is translated so that point A moves to point B.

Draw the shape in its new position

Use a ruler



1 mark

Ref: 4P2

14

Henry was born in **MMXI**

What year was that?

Poppy's teacher was born in **MCMLXXVI**

What year was that?

1 mark

1 mark

Ref: 5N3b

15

Round 123, 456

to the nearest 100,000

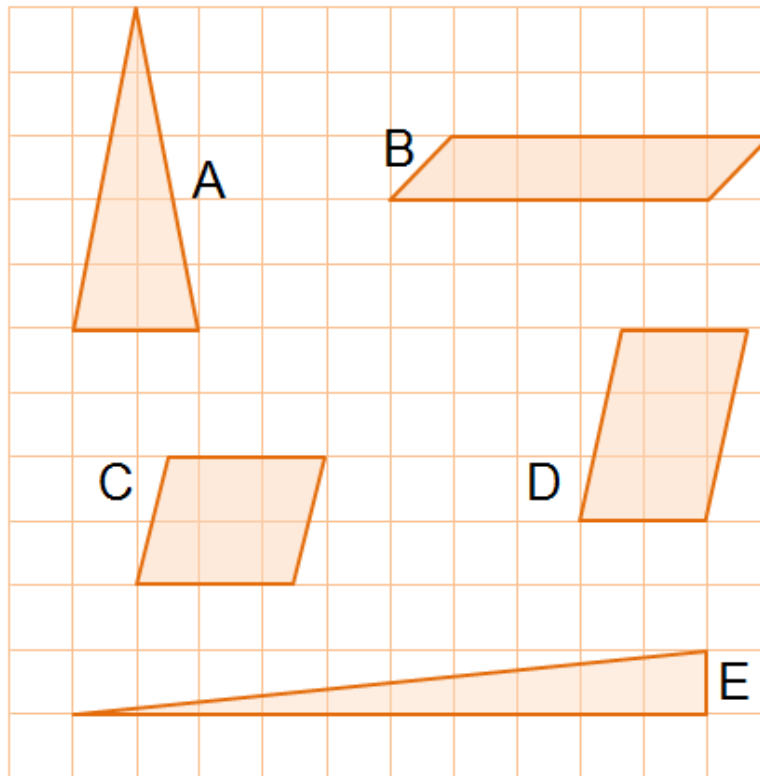
to the nearest 1,000

to the nearest 10

2 mark

Ref: 5N4

17 Look at the triangles and parallelograms on a square grid.



One of the shapes has a different area

Which shape has a different area



1 mark

Ref: 6M7b

21 $19 \times 16.8 = 319.2$

Use this fact to work out $319.2 \div 190$



1 mark

Ref: 6C8