

Ma

YEAR  
7

LEVELS  
3-4

2004

# Year 7 mathematics test

## Paper 2

### Calculator allowed

Please read this page, but do not open your booklet until your teacher tells you to start. Write your name and the name of your school in the spaces below.

First name \_\_\_\_\_

Last name \_\_\_\_\_

School \_\_\_\_\_

#### Remember

- The test is 45 minutes long.
- You **may** use a calculator for any question in this test.
- You will need: pen, pencil, rubber, ruler, tracing paper and a mirror (optional) and a calculator.
- This test starts with easier questions.
- Try to answer all the questions.
- Write all your answers and working on the test paper – do not use any rough paper. Marks may be awarded for working.
- Check your work carefully.
- Ask your teacher if you are not sure what to do.

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For marker's  
use only

|             |  |
|-------------|--|
| Total marks |  |
|-------------|--|

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## Instructions

### Answers



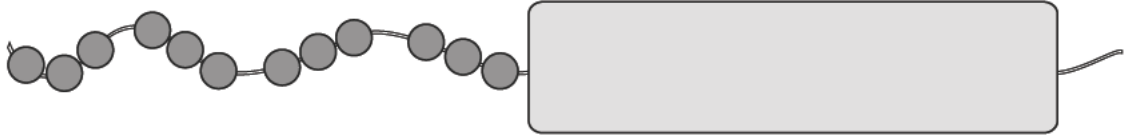
This means write down your answer or show your working and write down your answer.

### Calculators



You **may** use a calculator to answer any question in this test.

- 1 Some beads are on a string.



**Half** of the beads are hidden.

How many beads are there **altogether**?



.....

1 mark

- 2 Fill in the missing numbers.



$$\square + 789 = 1023$$

1 mark

$$718 - \square = 367$$

1 mark

$$\square \times 57 = 1938$$

1 mark



3 The table shows some information about some teachers in a school.

| Name        | Male or Female? | Tutor for which year group? | Maths teacher? | Science teacher? |
|-------------|-----------------|-----------------------------|----------------|------------------|
| Mr Brooks   | male            | year 7                      | yes            | no               |
| Miss Jones  | female          | year 9                      | no             | yes              |
| Mrs Patel   | female          | year 7                      | yes            | yes              |
| Dr Rawley   | female          | year 8                      | yes            | no               |
| Mr Williams | male            | year 11                     | no             | yes              |

Which female teacher teaches maths but not science?



.....

1 mark

4 (a) Carl has 4 coins.

Altogether he has **25p**

What coins could Carl have?



1 mark

(b) Mary has 5 coins.

Altogether she has **£1.25**

Mary does **not** have any **£1** coins.

What coins could Mary have?



1 mark



5 (a) About how much does a **new-born baby** weigh?

Tick (✓) the correct answer.



0.3 kg

3 kg

30 kg

300 kg



1 mark

(b) About how much milk does a **baby's bottle** hold?

Tick (✓) the correct answer.



3 millilitres

300 millilitres

3 litres

300 litres



1 mark

6

A shop sells T-shirts and vests.



I have **£20**

(a) How many T-shirts could I buy with £20?



.....

1 mark

(b) How many vests could I buy with £20?



.....

1 mark

(c) I buy **two T-shirts** and **two vests**.

How much change should I get from £20?



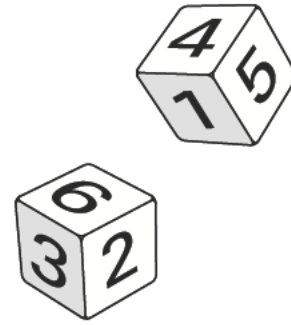
£

.....

2 marks



7 I have two dice, each numbered 1 to 6



I am going to throw both dice and add the numbers.

Which of these **totals** are **impossible** to get?

Put a ring round the impossible ones.



12

5

20

8

1

1 mark

8 Fill in the missing word.

0.07 is the same as 7 ..... *hundredths* .....



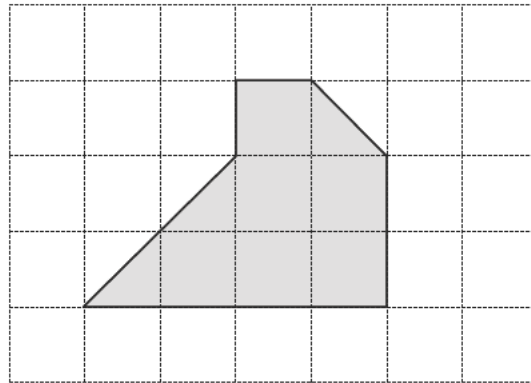
0.7 is the same as 7 .....

1 mark



9

Look at the shaded shape on this centimetre square grid.



(a) Explain why the shape is a **hexagon**.



1 mark

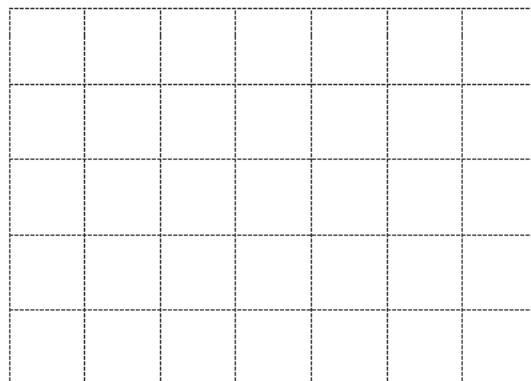
(b) What is the **area** of the hexagon?



..... cm<sup>2</sup>

1 mark

(c) On the centimetre square grid below, draw a **triangle** that has an area of **2cm<sup>2</sup>**



1 mark



10 Solve these equations.

$$a + 12 = 24$$



$$a = \dots\dots\dots$$

1 mark

$$b - 12 = 24$$



$$b = \dots\dots\dots$$

1 mark

11 (a) Gold ribbon costs **60p for one metre**. Tom has **£2.40**

How many metres of gold ribbon can he buy?



..... metres

1 mark

(b) Blue ribbon costs **40p for one metre**. Nicola buys  **$3\frac{1}{2}$  metres**.

How much does this cost?



£

1 mark

- 12 The chart shows the distances in miles between five cities in America.

|            |         |        |          |         |
|------------|---------|--------|----------|---------|
|            | Chicago |        |          |         |
| Denver     | 1015    | Denver |          |         |
| New York   | 797     | 1799   | New York |         |
| Seattle    | 2062    | 1329   | 2864     | Seattle |
| Washington | 701     | 1686   | 228      | 2769    |

Use the chart to answer these questions.

- (a) It is 1686 miles from Washington to Denver.  
How many miles is it from **Washington to Chicago**?



..... miles

1 mark

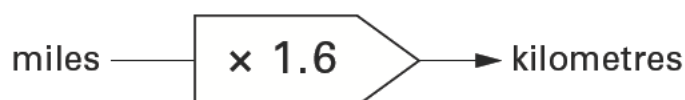
- (b) Which two cities have the **greatest distance** between them?



..... and .....

1 mark

- (c) To change miles to kilometres use this rule:



How many **kilometres** is it from **New York to Washington**?

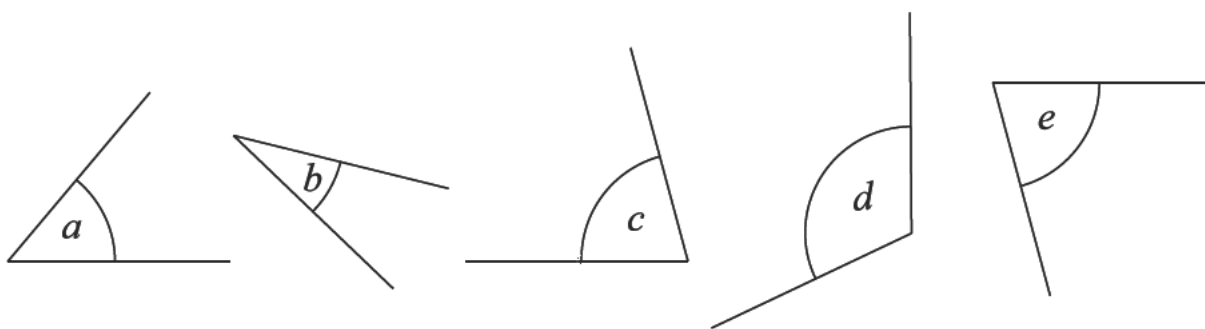


..... kilometres

1 mark



13 (a) Look at these angles.



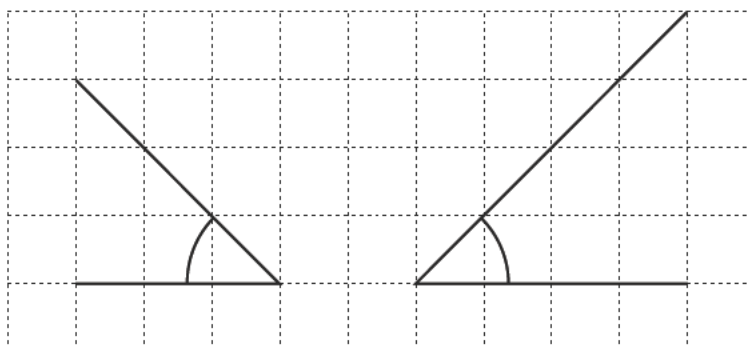
Write the letter of the **smallest** angle.



angle .....

1 mark

(b) Now look at these angles. They are drawn on a square grid.



Ali says the angles are **not** the same size.

Is he correct? Tick (✓) Yes or No.




Yes

No

Explain your answer.



1 mark

14

Three pupils answered different questions.

This is what each pupil's calculator showed:



(a) Asim's question was about **money**.

Complete the sentence:



3.5 means £3 and ..... pence.

1 mark

(b) Ben's question was about **time**.

Complete the sentence:



3.5 means 3 hours and ..... minutes.

1 mark

(c) Charlie's question was about **length**.

Complete the sentence:



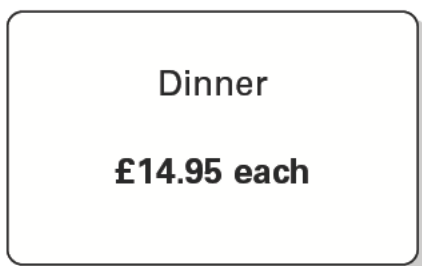
3.5 means 3 metres and ..... centimetres.

1 mark



15

The card shows the price of dinner at a restaurant.



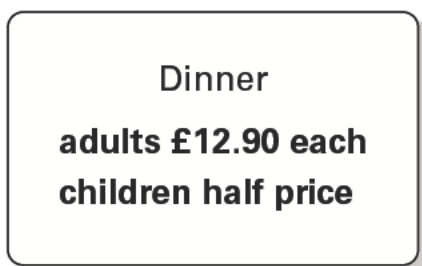
- (a) **Twelve people** had dinner.  
How much did they pay altogether?



£

1 mark

- (b) Another restaurant has different prices.



**Two adults** and their children had dinner.  
They paid **£58.05** altogether.

How many children had dinner?



..... children

.....

2 marks

16

Three pupils weighed their school bags.

The bar chart shows the results for two of the pupils.



(a) Rita's bag weighed **2.5 kg**

Draw a bar on the chart to show the weight of Rita's bag.

1 mark

(b) How much did the 3 bags weigh **altogether**?


 kg

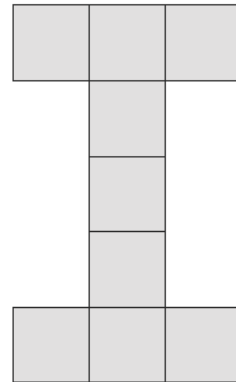
1 mark



17

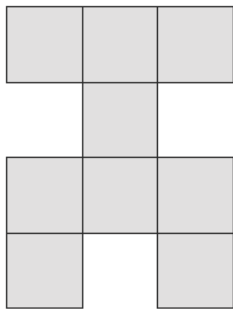
All the shapes in this question are made from nine squares.

This shape will look the **same** when it is **turned** through **two right angles**.

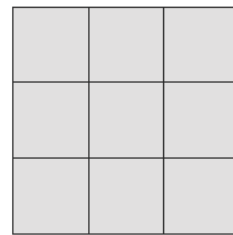


Which shapes below will look the same when they are turned through two right angles?

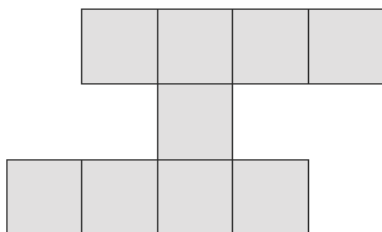
Tick (✓) the ones that do. Cross (✗) the ones that do not.



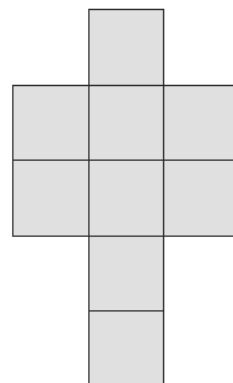
.....



.....



.....



.....

.....

2 marks



18

Here is part of a questionnaire.

*How old are you?**less than 18 years old**more than 18 years old*

(a) Alice is 18 years old.

Explain why Alice cannot fill in this part of the questionnaire.



1 mark

(b) Change the questionnaire so that everyone can fill it in.

*How old are you?**less than 18 years old*

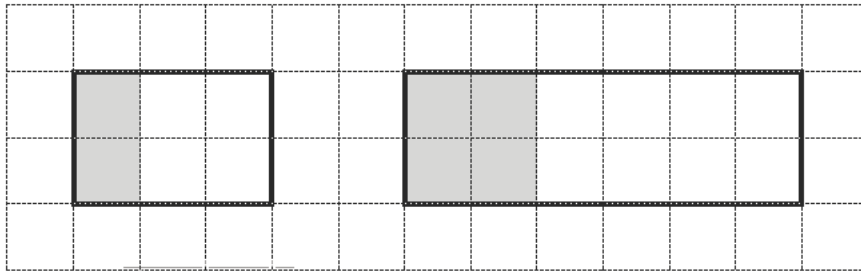
.....

1 mark



19

Look at the rectangles on the square grid.



Jan says:

The **same fraction** of each rectangle is shaded.

Is Jan correct? Tick (✓) Yes or No.



Yes

No

Explain your answer.



1 mark

END OF TEST



