Ma

YEAR 7

LEVELS 3–4

2006

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.

For marker's use only

Total marks	
Borderline check	

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 Look at the table.

Name	Male/Female	Age (years)	Height (cm)
Alice	female	36	155
Frank	male	54	175
Gina	female	42	168
Milly	female	16	162
Rani	male	24	178

Use the table to answer the questions.

(a) What is the **name** of the oldest person?

_____

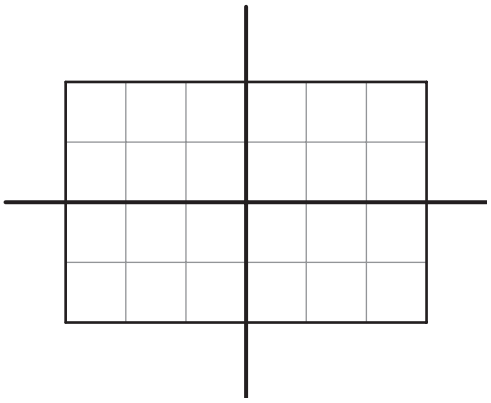
1 mark

(b) What is the **height** of the tallest female?

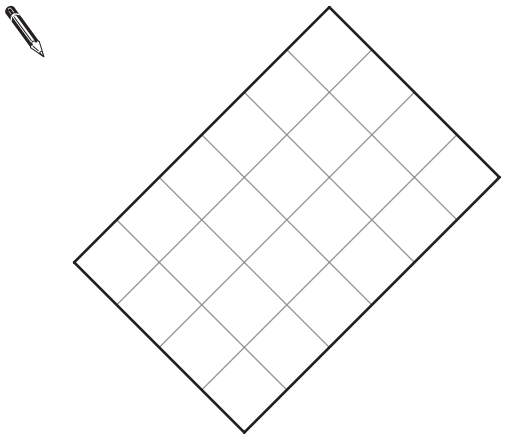
_____ cm

1 mark

2 A rectangle has **two** lines of symmetry.



Now, draw the two lines of symmetry on this rectangle.



1 mark

3 (a) Tick (✓) the correct box to show about **how long a car** is.

☐ 4 millimetres ☐ 4 centimetres

☐ 4 metres ☐ 4 kilometres

1 mark

(b) Tick (✓) the correct box to show the **temperature in a freezer**.

☐ 180°C ☐ –18°C

☐ 18°C ☐ 1.8°C

1 mark

(c) Tick (✓) the correct box to show about how much **a cat weighs**.

☐ 3 grams ☐ 30 kilograms

☐ 30 grams ☐ 3 kilograms

1 mark

4 Tim, his mother and his grandmother all have their birthday on the same day.

Tim
12 years old

Tim's mother
37 years old

Tim's grandmother
70 years old

(a) When Tim was born, how old was **Tim's grandmother**?

_____ years old

1 mark

(b) When **Tim's mother** is **60** years old, how old will **Tim** be?

_____ years old

1 mark

5 The time on a digital clock is **2:45**

What time will the digital clock show **one and a half hours** later?

Tick (✓) the correct time below.

1 mark

6 Sara drew this pictogram to show the average number of hours animals sleep each day.

Key: ◇ stands for 2 hours

Bat	◇ ◇ ◇ ◇ ◇ ◇ ◇ ◇ ◇ ◁
Gorilla	◇ ◇ ◇ ◇ ◇ ◇
Horse	◇ ◇
Human	◇ ◇ ◇ ◇
Mouse	◇ ◇ ◇ ◇ ◇ ◇ ◇

(a) Which animal sleeps for a **shorter** time each day **than a human**?

_____

1 mark

(b) A **bat** sleeps for longer each day than a **mouse**.

How many hours longer?

_____ hours

1 mark

(c) Now Dave draws another pictogram to show the same information.

Here is Dave's key:

Key: ○ stands for **3 hours**

How many circles show the number of hours that a **gorilla** sleeps each day?

_____ circles

1 mark

7 (a) The first **odd** number is 1

What is the **sixth** odd number?

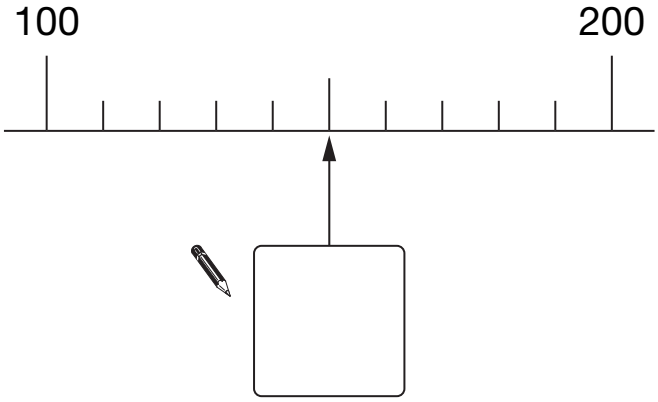
1 mark

(b) The first **five** odd numbers add up to 25

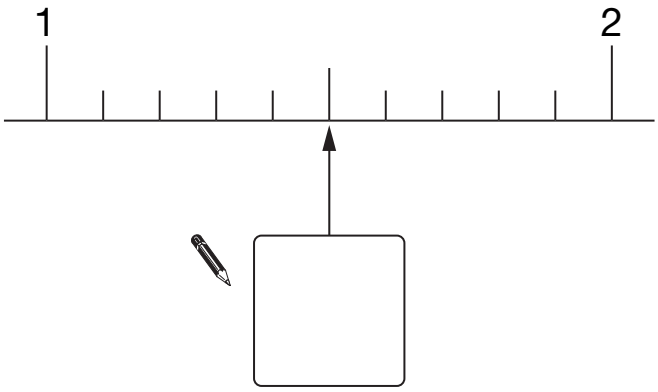
What do the first **six** odd numbers add up to?

1 mark

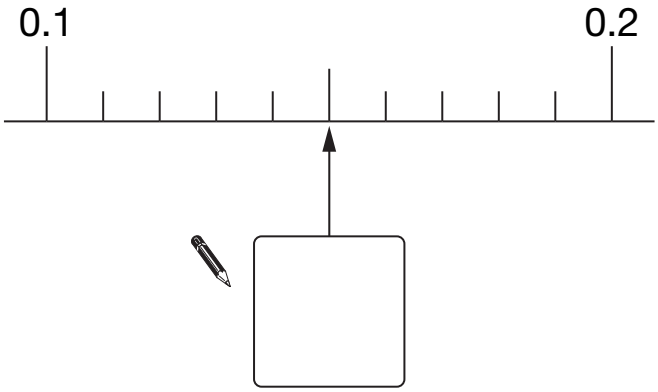
8 What number does the arrow show on each number line below?



1 mark



1 mark



1 mark

9 Here is a grid with some numbers shaded.

1	2	3	4
5	6	7	8
9	10	11	12

The grid continues.

Will the number **35** be **shaded**?

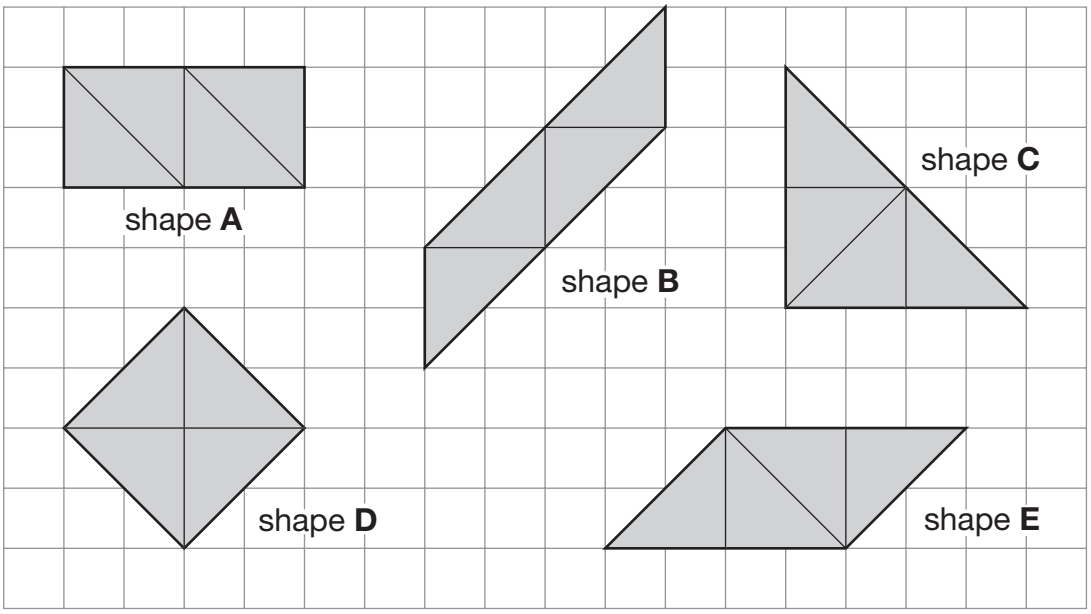
☐ Yes ☐ No

Explain your answer.

1 mark

10 Joe makes different shapes using four tiles each time.

The square grid shows the different shapes he makes.



(a) Which shape is a **square**?

Write its letter.

shape _____

1 mark

(b) Which shape is **not** a **quadrilateral**?

Write its letter.

shape _____

1 mark

(c) Joe says:

> The shape with the **biggest area** is shape **C.**

Is Joe correct?

☐ Yes ☐ No

Explain your answer.

1 mark

11 (a) In the number **4378**, the figure 7 represents 7 **tens**.

What does the figure **3** represent?

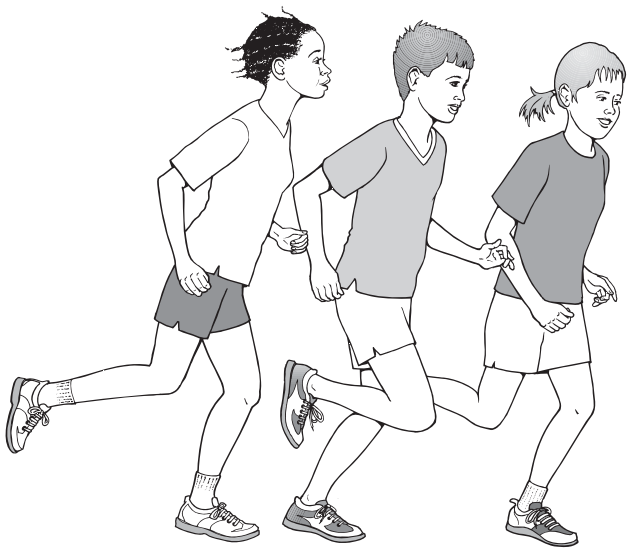
What does the figure **4** represent?

1 mark

(b) Write in figures the number **twenty thousand and twenty**.

1 mark

12 Anna, Ben and Carly are running a race.



Anna (A) Ben (B) Carly (C)

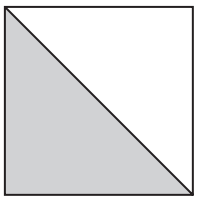
Complete the table to show the **different orders** in which they could finish.

One order is done for you.

1st	2nd	3rd
A	B	C

2 marks

13 (a) **Half** of this square is shaded.

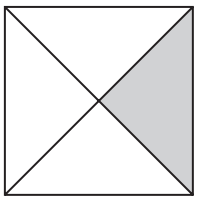


What **percentage** of the square is shaded?

_____ %

1 mark

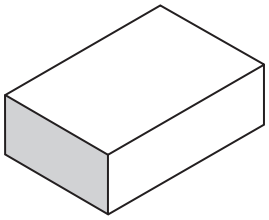
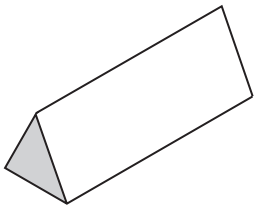
(b) What **percentage** of this square is shaded?



_____ %

1 mark

14 (a) Write numbers to complete the table below.

	Number of faces that are **rectangles**	Number of faces that are **triangles**
cuboid 		
triangular prism 		

1 mark

1 mark

(b) A different shape has five faces.

Four of the faces are triangles. One face is a square.

Write the name of this shape.

_____

1 mark

15 The equation shows how much you pay to hire a car.

N stands for the number of days

$$N \times 20 = T$$

T stands for the total you pay in £

(a) Leena hires the car for **10 days**.

How much must she pay?

£ _____

1 mark

(b) Later, Tom pays **£280** to hire the car.

For **how many days** does he hire the car?

_____ days

1 mark

16 I have ten number cards, numbered **1** to **10**

I am going to take a card at random.

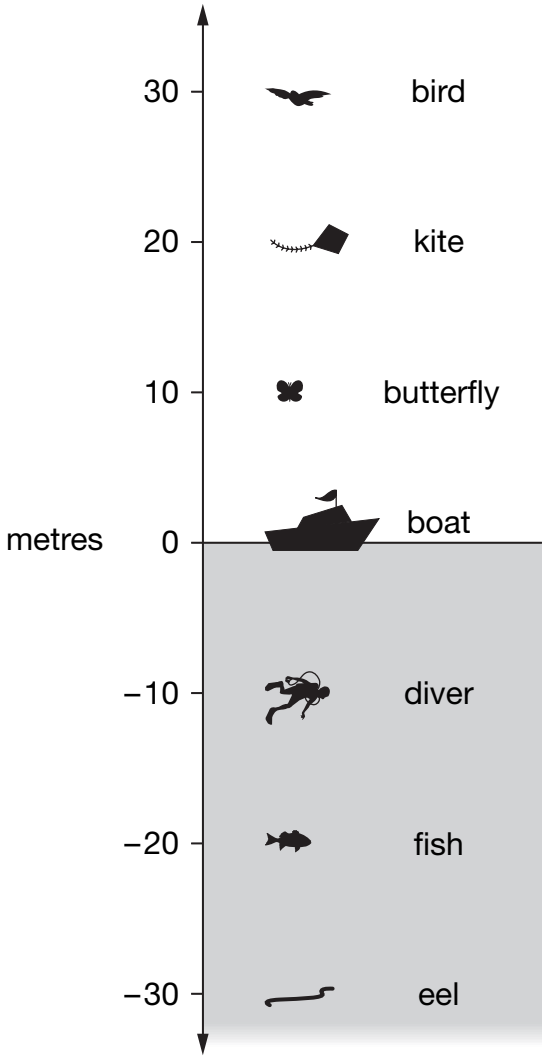
Match each sentence below to a correct description of its probability.

The first one is done for you.

The number on the card will be **20**	Certain
The number on the card will be **an odd number**	Likely
The number on the card will be **greater than 3**	Even chance
The number on the card will be **less than 12**	Unlikely
The number on the card will be **a multiple of 5**	Impossible

2 marks

17 The diagram shows what is above and below sea level.



(a) What is about **50m lower** than the **bird**?

_____

1 mark

(b) An **octopus** is at about **–40m**.

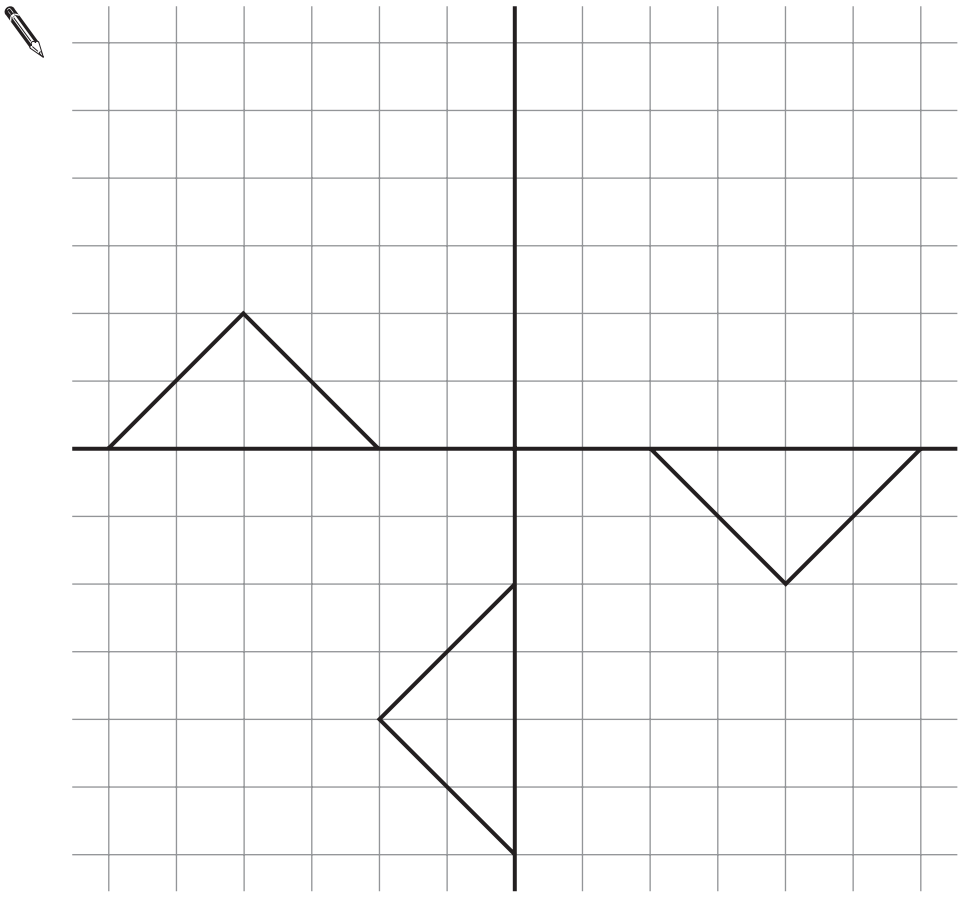
About **how many metres higher** is the **diver** than the octopus?

_____ m

1 mark

18 The pattern below is not finished.

Draw one more **triangle** so that the pattern looks the **same** when it is **rotated** through one or more right angles.



Square grid

2 marks

19 The tables below show the number of days in each month in the year 2006.

January	31
February	28
March	31
April	30
May	31
June	30

July	31
August	31
September	30
October	31
November	30
December	31

(a) For the statement below, tick (✓) True or False.

The **mode** of the number of days in a month is **31**

☐ True ☐ False

Explain your answer.

1 mark

(b) There are **more** days in the **second six months of the year** than in the first six months.

How many more?

_____

1 mark

END OF TEST

END OF TEST

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QCA/06/1915 (pupil pack)
QCA/06/1913 (teacher pack)

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