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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge Checkpoint

CANDIDATE
NAME

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CENTRE
NUMBER

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CANDIDATE
NUMBER

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MATHEMATICS

1112/01

Paper 1

April/May 2008

1 hour

Candidates answer on the Question Paper.

Additional Materials: Protractor
 Ruler

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use a soft pencil for any diagrams or graphs.

Do not use staples, paperclips, highlighters, glue or correction fluid.

You are not allowed to use a calculator.

DO NOT WRITE IN ANY BARCODES.

Answer **all** questions.

NO CALCULATOR ALLOWED.

You should show all your working in the booklet.

The total number of marks for this paper is 50.

The number of marks is given in brackets [] at the end of each question or part question.

This document consists of 10 printed pages and 2 blank pages.





1 The diagram shows a number card used in a children's game.

	33	20		17
12	15		36	
	18	21		44
8		27	48	

Using only the numbers on the card write down

(a) a prime number,

..... [1]

(b) a multiple of 7,

..... [1]

(c) a factor of 32,

..... [1]

(d) a square number,

..... [1]

(e) the square root of 144.

..... [1]



The ages, in years, of seven passengers are shown below.

14 17 20 14 41 8 19

Find

(a) the range of the ages of the passengers,

..... [1]

(b) the median age of the passengers,

..... [2]

(c) the modal age of the passengers,

..... [1]

(d) (i) the total age of the passengers,

..... [1]

(ii) the mean age of the passengers.

..... [1]



3 (a) Work out

(i) $74.2 - 38.45$,

..... [1]

(ii) $29.2 \div 0.4$.

..... [1]

(b) A boy travels 20 km on his bicycle.

After travelling 5 km he stops for a rest.

(i) What fraction of his journey has he **completed**?

Give your answer as a fraction in its simplest terms.

..... [2]

(ii) What **percentage** of his journey is still left?

..... % [1]



4 Given that

$$23 \times 24 = 552$$

write down the value of

(a) $230 \times 24,$

..... [1]

(b) $2.3 \times 2.4,$

..... [1]

(c) $552 \div 23,$

..... [1]

(d) $23 \times 2.4,$

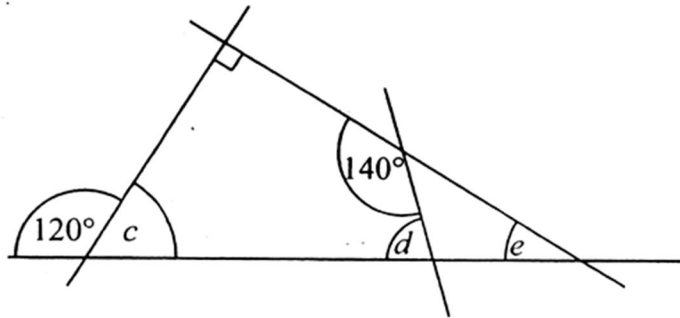
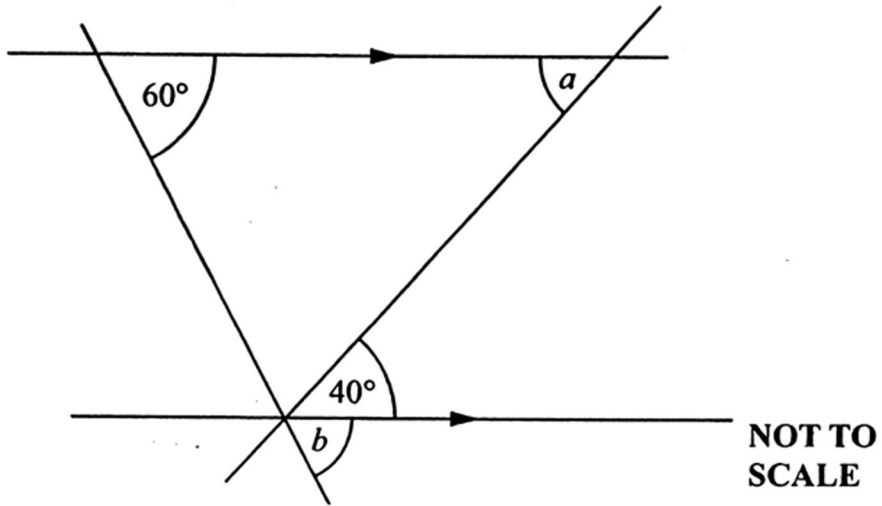
..... [1]

(e) $552 \div 2.4.$

..... [1]



5 Work out the sizes of the angles a , b , c , d and e .



$a =$ [1]

$b =$ [1]

$c =$ [1]

$d =$ [1]

$e =$ [1]



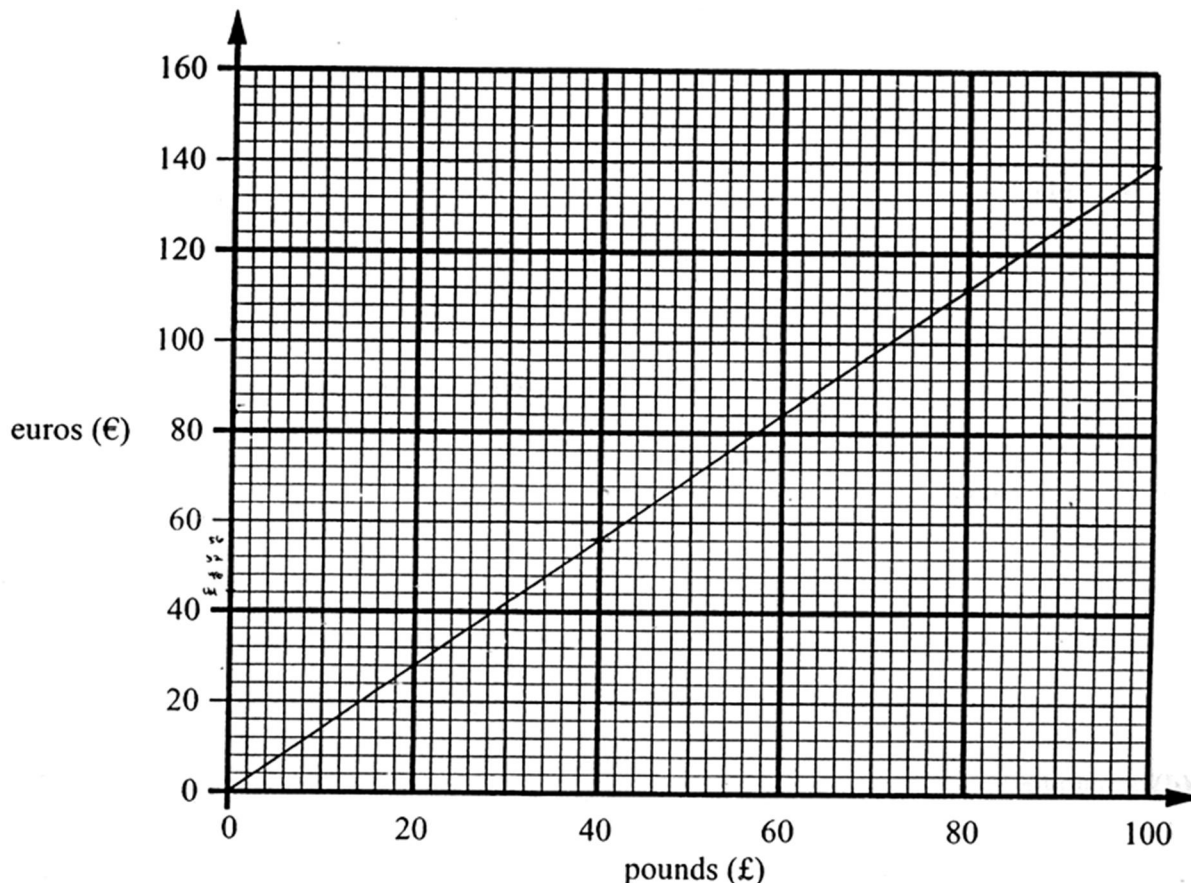


6 On February 1st 2005, the conversion rate between pounds (£) and euros (€) is £1 = €1.40.

(a) How many euros are obtained for £100?

€ [1]

(b) The graph below is used to convert between pounds and euros.



Use the graph to find

(i) how many euros are obtained for £40.

€ [1]

(ii) how many pounds are obtained for €84.

£ [1]

(c) Use the graph to help you to work out how many pounds are obtained for 224 euros.

..... [2]



7 A bowl of fruit contains 4 oranges, 2 apples, 3 pears and a banana.

A fruit is chosen at random.

Write down the probability that the fruit is

(a) a pear,

..... [1]

(b) an apple or a banana,

..... [1]

(c) not an orange,

..... [1]

(d) a mango.

..... [1]



8 (a) Write 0.49 as a fraction.

..... [1]

(b) A tyre is priced at \$40 by the manufacturer.
The garage adds 45% to this price before it is sold to a motorist.
Work out how much the tyre is **sold for**.

\$ [2]

(c) The garage has a marked price of \$80 for a different tyre.
A motorist is given a discount of 20%.

Work out how much this motorist **pays** for the tyre.

\$ [2]

9 Complete the following statements.

(a) 1.624 metres =centimetres [1]

(b) 47.21 centilitres =millilitres [1]

(c) 7281 grams =kilograms [1]

(d) 14.69 millimetres =centimetres [1]

(e) 2.6 tonnes =kilograms [1]



10 Simplify the following expressions.

(a) $a^2 \times a^3$

..... [1]

(b) $b^8 \div b^2$

..... [1]

(c) $(c^3)^2$

..... [1]

(d) $\sqrt{4d^6}$

..... [2]