UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge Checkpoint

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

MATHEMATICS

1112/01

Paper 1

April/May 2007

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, graphs or rough working.
Do not use staples, paper clips, 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.
At the end of the examination, fasten all your work securely together.
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.

UNIVERSITY *of* **CAMBRIDGE**
International Examinations

[Turn over

1   Look at the number grid below

7	8	36
25	17	6
10	64	19

Write down

(a) a prime number in the middle row,

.... [1]

(b) a cube number in the top row,

.... [1]

(c) a square number in the middle row,

.... [1]

(d) one number, in the grid, that is a factor of 56,

.... [1]

(e) $\sqrt{64}$.

.... [1]

2 The height, in centimetres, of five boys is shown.

<div align="center">

153   149   160   158   147

</div>

(a) Write down the range of the heights.

.... [1]

(b) Write down the median height.

.... cm   [1]

(c) Work out the total height.

.... cm   [1]

(d) Work out the mean height.

.... cm   [1]

3   A shop buys cans.
    The box contains 48 cans packed 12 to a layer.
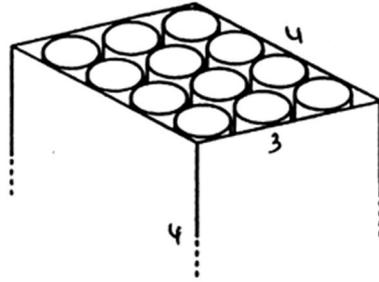
(a) How many layers of cans does the box contain?

.... [1]

(b) The boxes are packed eight to a crate.
    Work out the number of cans in one crate.

.... [1]

(c) Each can costs $1.50.

   (i)   Work out the cost of one layer of cans.

                                          $ .... [1]

   (ii) The cans are sold at a profit of 50%.
         Calculate the selling price of one can.

                                          $ .... [2]

4 (a) A school has 320 students.

9 students in every 16 speak English.
How many students in the school speak English?

.... [1]

(b) 64 of the students study German.
What percentage is this?

.... % [2]

(c) 15% of the students study French.
Write this percentage as a fraction in its simplest form.

.... [2]

7 Laurell is listening to a series of programmes on her radio.

(a) The first programme starts at 17 05 on Monday.

Write this time using the 12-hour clock.

.... [1]

(b) Each programme lasts for 40 minutes.

(i) The second programme ends at 18 25 on Tuesday.

Work out the **starting time** of this programme.

.... [1]

(ii) The total length of the remaining programmes is 4 hours.

Work out how many programmes remain.

.... [2]

(c) Another series contains seven programmes each lasting 35 minutes.
Work out the total length of this series.

....minutes [1]

8 $285 \times 1.7 = 484.5$

Use this information to **write down** the answer to the following.

(a) $484.5 \div 1.7 =$ .... [1]

(b) $285 \times 17 =$ .... [1]

(c) $2.85 \times 170 =$ .... [1]

(d) $2.85 \times 1.7 =$ .... [1]

(e) $142.5 \times 3.4 =$ .... [1]

9 Write the number 243.482

(a) correct to the nearest whole number,

.... [1]

(b) correct to one decimal place,

.... [1]

(c) correct to one significant figure,

.... [1]

(d) in standard form.

.... [2]

10 Solve the equations.

   (a) $3x + 7 = 22$

   .... [2]

   (b) $8y + 9 = 15 - 4y$

   .... [3]