

**GENERAL CERTIFICATE OF SECONDARY EDUCATION
 MATHEMATICS C (GRADUATED ASSESSMENT)
 MODULE M6 – SECTION A**

M6

TUESDAY 24 JUNE 2008

Morning
 Time: 30 minutes

Candidates answer on the question paper
Additional materials (enclosed): None

Additional materials (required):
 Geometrical instruments
 Tracing paper (optional)



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Candidate Forename

Candidate Surname

Centre Number

Candidate Number

INSTRUCTIONS TO CANDIDATES

- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Show your working. Marks may be given for a correct method even if the answer is incorrect.
- Answer **all** the questions.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this Section is **25**.



WARNING

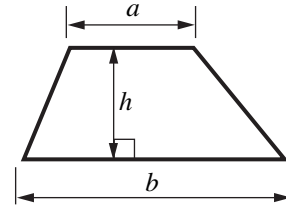
You are not allowed to use a calculator in Section A of this paper.

FOR EXAMINER'S USE	
SECTION A	
SECTION B	
TOTAL	

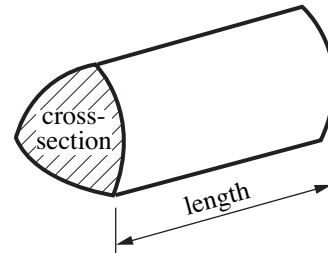
This document consists of **8** printed pages.

Formulae Sheet

Area of trapezium = $\frac{1}{2}(a + b)h$



Volume of prism = (area of cross-section) \times length



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1 (a) Calculate.

$$6 + 4 \times 2$$

(a) [1]

(b) Calculate the following.

(i) 0.3×0.6

Give your answer as a decimal.

(b)(i) [1]

(ii) $\frac{30}{0.6}$

(ii) [2]

- 2 Jenny buys 3 scarves at £7.55 each and a bracelet for £3.95.

How much change should she get from £30?

£ [3]

- 3 Work out.

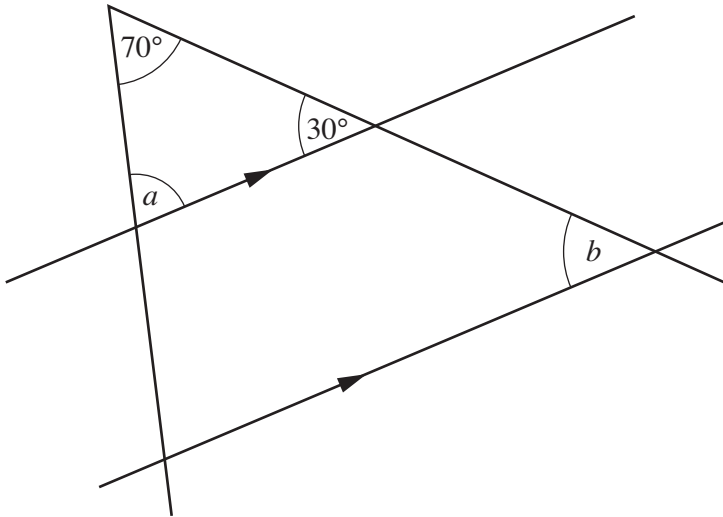
$$\frac{4}{5} - \frac{3}{4}$$

Give your answer as a fraction.

..... [2]

4

5



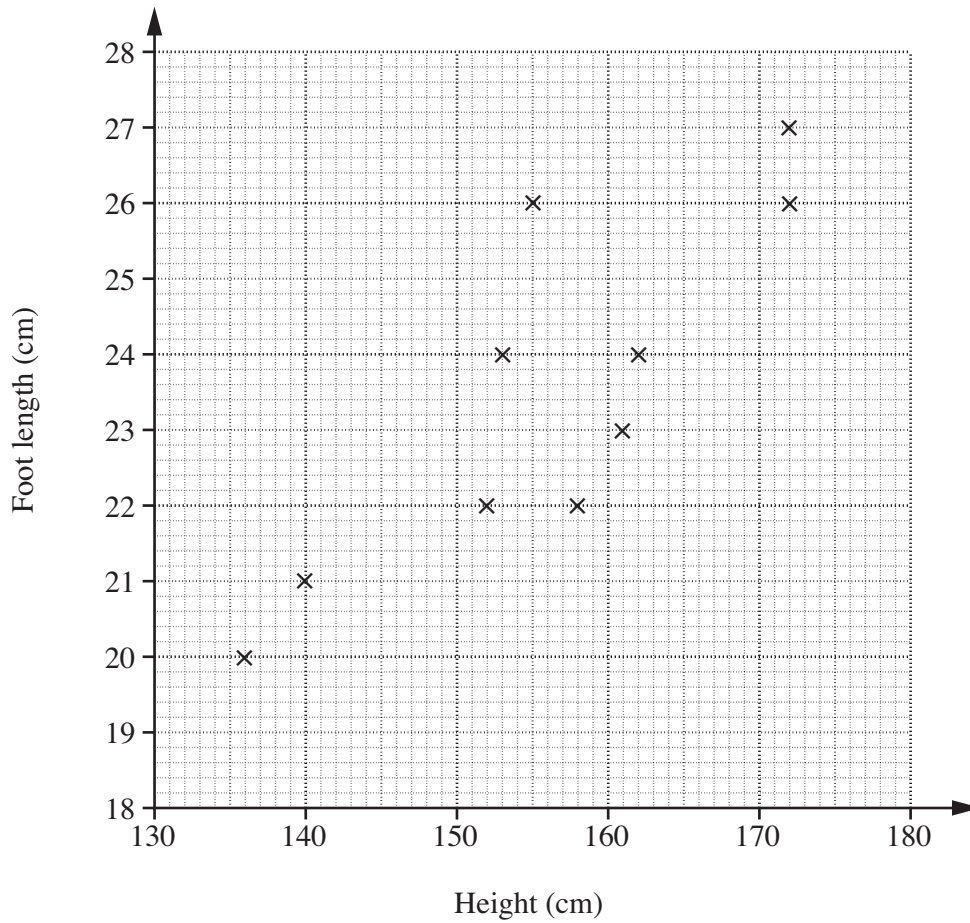
Not to scale

Find angles a and b .
Give your reasons.

$a = \dots\dots\dots^\circ$ because $\dots\dots\dots$
 $\dots\dots\dots$ [2]

$b = \dots\dots\dots^\circ$ because $\dots\dots\dots$
 $\dots\dots\dots$ [2]

5 This scatter diagram shows the height and foot length of each of ten boys.



(a) How does the scatter diagram show that there is positive correlation between height and foot length?

.....
 [1]

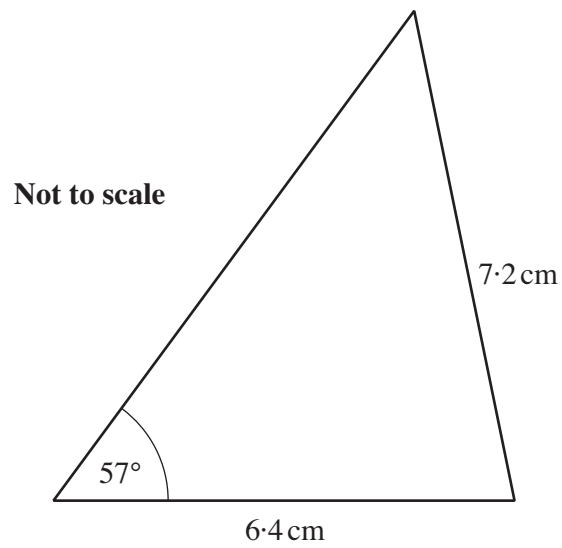
(b) Draw a line of best fit on the diagram. [1]

(c) Another boy's height is 165 cm.

Use your line of best fit to estimate his foot length.

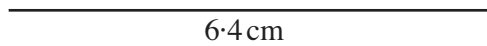
(c) cm [1]

6 Here is a sketch of a triangle.



Use ruler, protractor and compasses to construct this triangle accurately.
The 6.4 cm side has been drawn for you.
Leave in your construction lines.

[3]



TURN OVER FOR QUESTION 7

7 (a) Find the value of $4 - 2x$ when $x = -3$.

(a) [1]

(b) Solve these equations.

(i) $2x - 3 = 8$

(b)(i) [2]

(ii) $3x + 7 = x + 1$

(ii) [3]