OCR
RECOGNISING ACHIEVEMENT

GENERAL CERTIFICATE OF SECONDARY EDUCATION

MATHEMATICS C (GRADUATED ASSESSMENT)

M1 **2331B**

MODULE M1 – SECTION B

MONDAY 22 JANUARY 2007

Morning

Time: 30 minutes

Candidates answer on the question paper.
Additional materials: Geometrical instruments
                          Tracing paper (optional)
                          Electronic calculator

Candidate Name	

Centre Number					

Candidate Number				

INSTRUCTIONS TO CANDIDATES

*   Write your name, Centre Number and Candidate Number in the boxes above.
*   Answer **all** the questions.
*   Use blue or black ink. Pencil may be used for graphs and diagrams only.
*   Read each question carefully and make sure you know what you have to do before starting your answer.
*   In many questions marks will be given for a correct method even if the answer is incorrect.
*   Do **not** write in the bar code.
*   Do **not** write outside the box bordering each page.
*   WRITE YOUR ANSWER TO EACH QUESTION IN THE SPACE PROVIDED. ANSWERS WRITTEN ELSEWHERE WILL NOT BE MARKED.

INFORMATION FOR CANDIDATES

*   You are expected to use a calculator in Section B of this paper.
*   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.
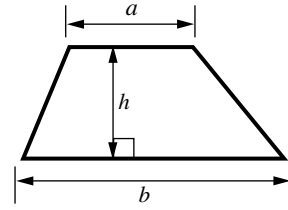*   Section B starts with question 8.

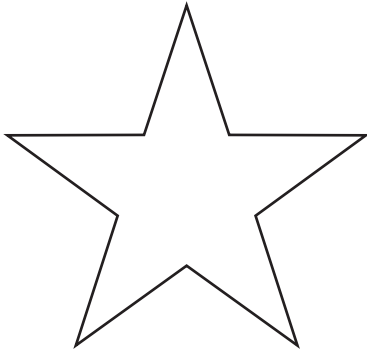| For Examiner's Use	
Section B	

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

Formula Sheet

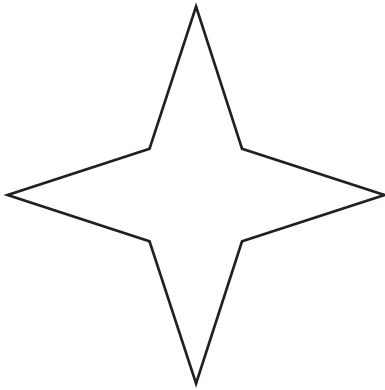**Area of trapezium** $= \frac{1}{2}(a + b)h$

PLEASE DO NOT WRITE ON THIS PAGE

8 **(a)** Shade half of this shape.

[1]

(b) Shade three quarters of the shape below.

[1]

(c) Work out $\frac{1}{4}$ of 60.

(c) .... [1]

3	

[Turn over

9   Marie checks her weight every morning at the same time.

An image has been removed due to third party copyright restrictions

Details:

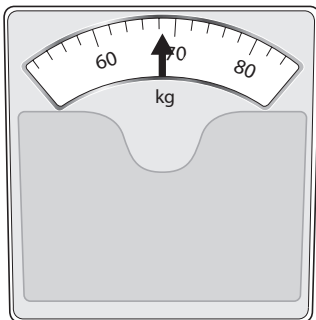An image of a person weighing herself on a set of bathroom scales

(a)   What time does the clock show?

(a) .... [1]

(b)   Marie weighs herself on these scales.

What weight do the scales show?

(b) .... kg [1]

(c)   Marie measures her height.
       It is 164 cm.

       Complete this sentence.

           164 cm is the same as .... metres.   [1]
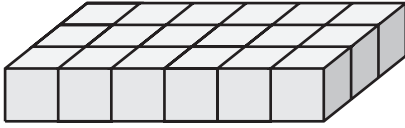
3

10 Mike is stacking boxes in piles.

(a) This is the first layer of a pile.

(i) How many boxes are there in this layer?
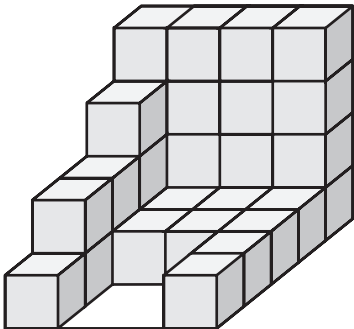
(a)(i) .... [1]

(ii) This is the finished pile.
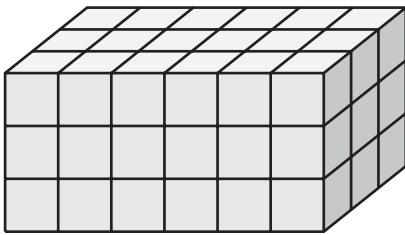
How many boxes are there altogether in the finished pile?

(ii) .... [1]

(b) This is the start of a different pile.
It will be 4 layers high.

How many boxes are there altogether when this pile is finished?

(b) .... [2]

[Turn over

11

© http://venezuelatuya.com/gransabana/saltoangeleng.htm
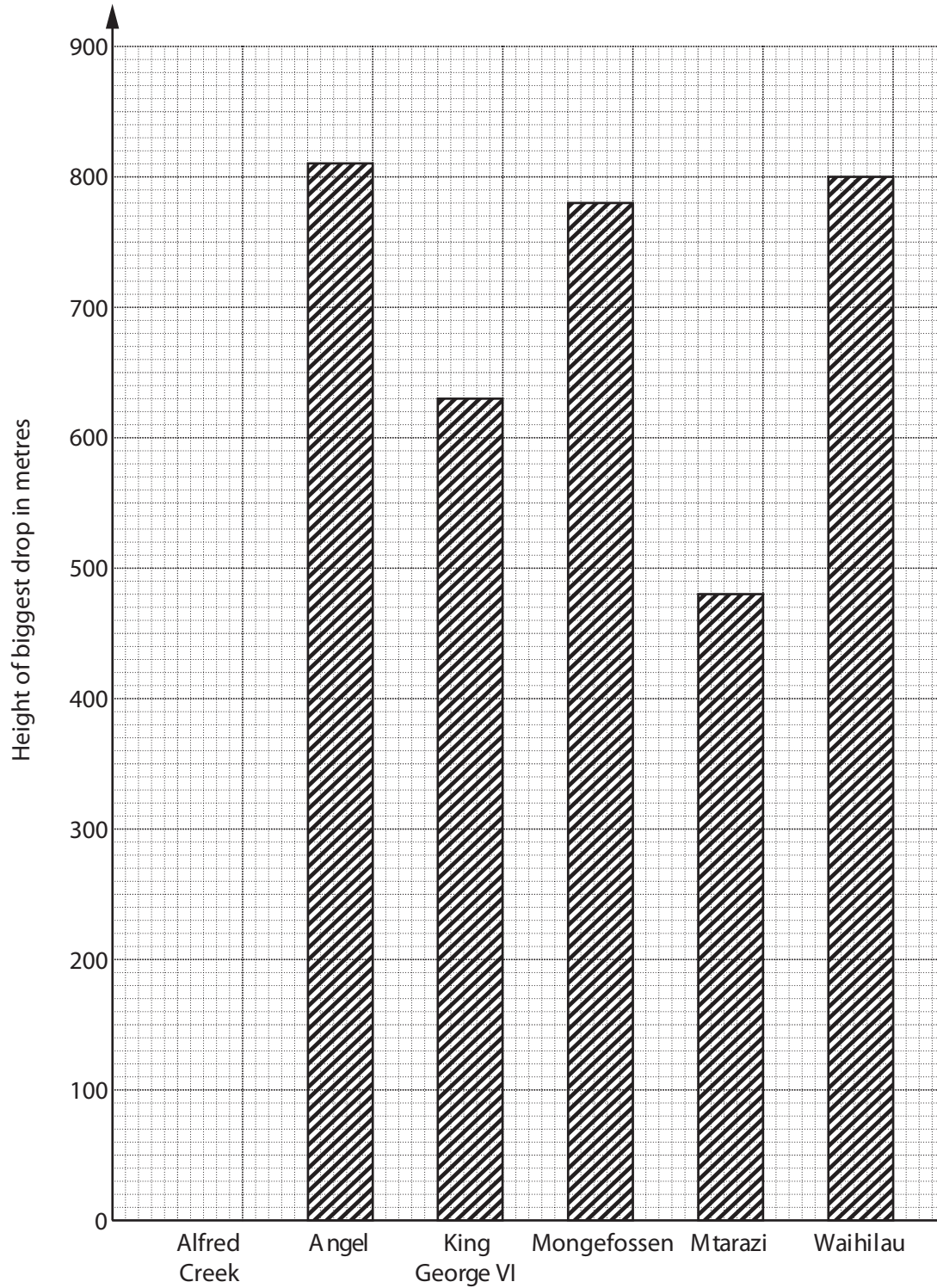
Angel Falls

This bar chart shows the heights of the biggest drop of some waterfalls.

(a) The biggest drop of the Alfred Creek waterfall is 700 metres.

Show this on the bar chart. [1]

(b) Use the bar chart to complete these sentences.

The highest waterfall is called .... [1]

The height of the Mtarazi waterfall is .... metres. [1]

The Waihilau waterfall is .... metres **higher** than the Mtarazi waterfall. [1]

(c) This picture shows the widths of the three falls at Niagara.

A photo has been removed due to third party copyright restrictions

Details:

A photo of Niagra Falls showing the widths of the three falls.
American falls is 306m, Bridal Veil Falls is 17m and Horseshoe Falls is 793m wide.

© http://www.niagarafallslive.com/images/panoramic.jpg

Work out the total width of the three falls.

(c) .... m [2]

6

TURN OVER FOR QUESTION 12

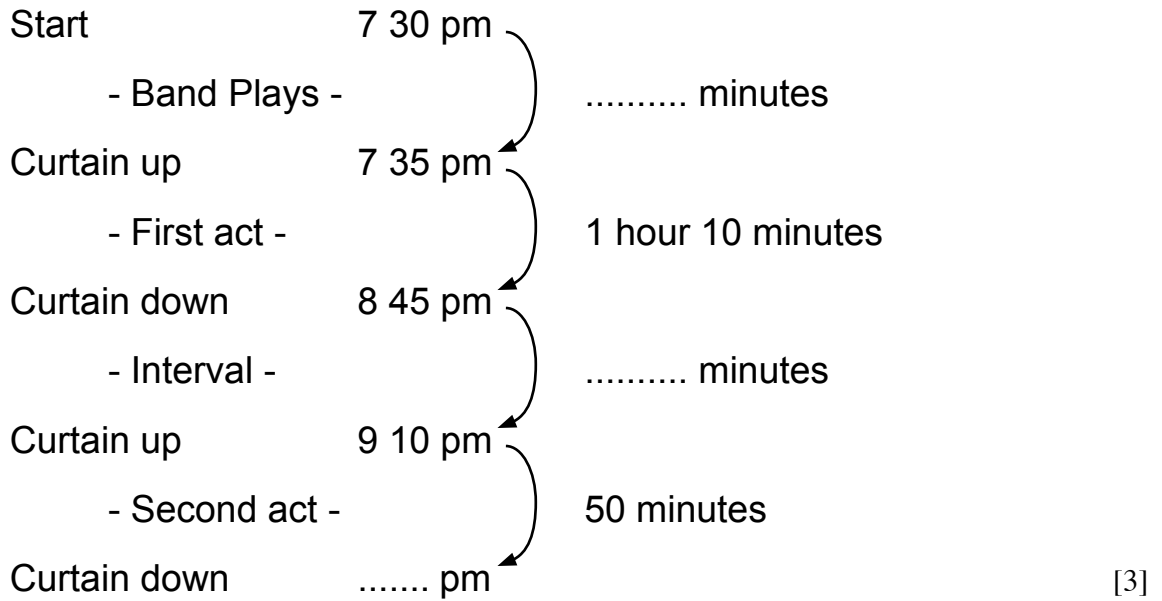[Turn over

12 Stacey is directing the school play.

(a) This list shows the instructions for the curtain monitor.

Complete the missing information in the list.

Start   7 30 pm

    - Band Plays -   .... minutes

Curtain up   7 35 pm

    - First act -   1 hour 10 minutes

Curtain down   8 45 pm

    - Interval -   .... minutes

Curtain up   9 10 pm

    - Second act -   50 minutes

Curtain down   .... pm   [3]

(b) (i) On Friday, 34 adults and 57 children come to watch the play.

Complete these sentences.

A total of .... people come to watch the play.   [1]

There are .... more children than adults.   [1]

(ii) On Saturday, the school sells 41 adult tickets and 52 child tickets.
Adult tickets cost £5 each and child tickets cost £3 each.

How much money is paid altogether on Saturday?

(b)(ii) £ .... [4]

9