



Pre-Junior Certificate Examination, 2011

Technical Graphics
Ordinary Level
Section A
(120 marks)

Time : 2½ Hours

Instructions

- (a) Answer **any ten** questions in the spaces provided.
All questions carry equal marks.
- (b) Construction lines must be clearly shown.
- (c) All measurements are in millimetres.
- (d) This booklet must be handed up at the end of the examination.
- (e) Write your name, school's name and teacher's name in the boxes provided below and on all other pages used.

School Stamp

Question	Mark
Section A	
1	
2	
3	
4	
5	
6	
TOTAL	
GRADE	

Name:

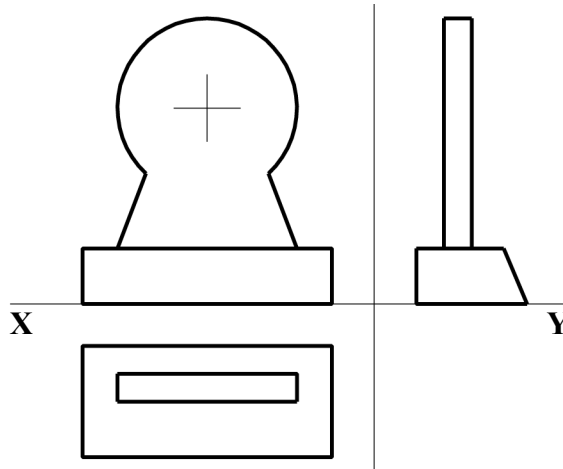
School:

Teacher:

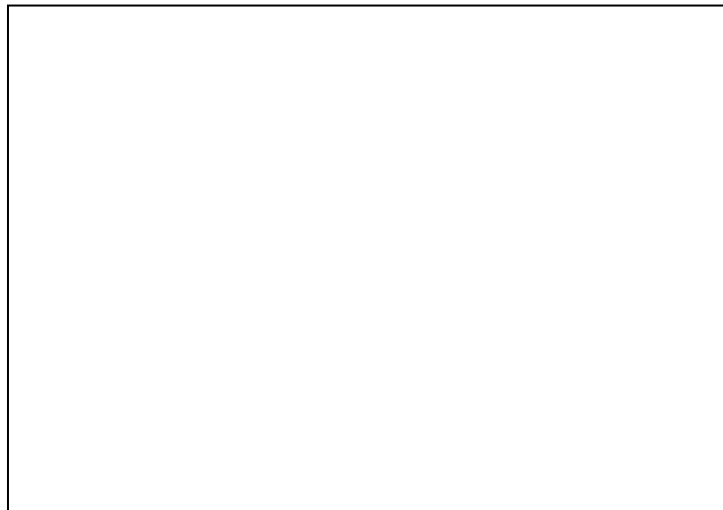
SECTION A. Answer **any ten** questions. All questions carry equal marks.

- 1** Shown is an **incomplete plan, incomplete end view** and elevation of a trophy.

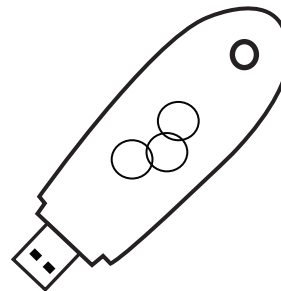
Insert the missing lines in both the plan and the end view.



- 2** In the space provided, make a **freehand sketch** of the mug shown. Colour **or** shade the completed sketch.

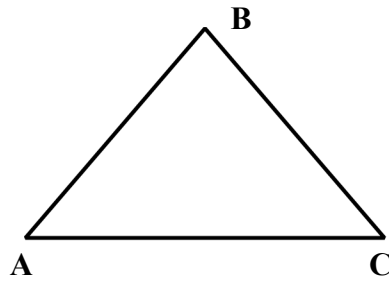


- 3** **Name** the computer device shown and state its use.



Name: _____ **Use:** _____

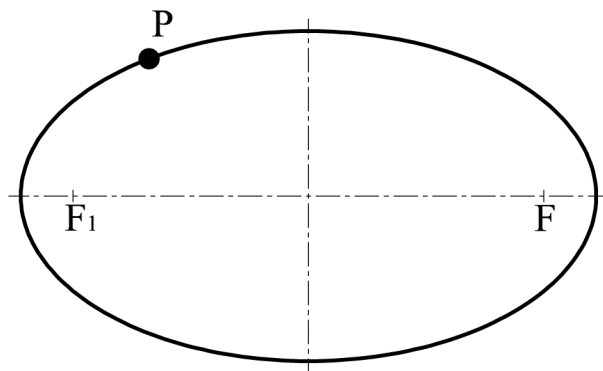
- 4 Convert the given triangle **ABC** to a rectangle of equal area.



- 5 The figure shows an ellipse and its focal points.

Draw a tangent to the ellipse at **point P**.

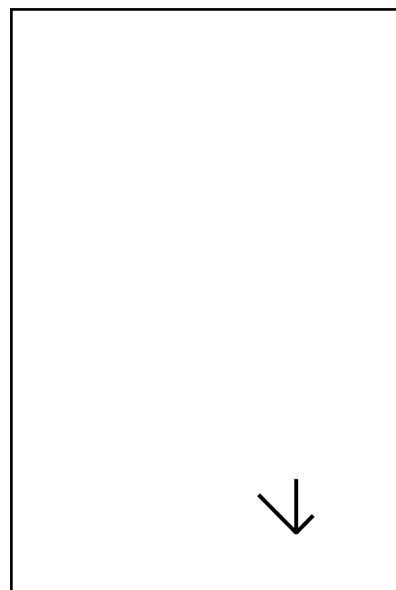
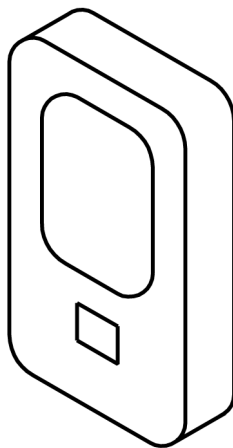
Show clearly all construction lines.



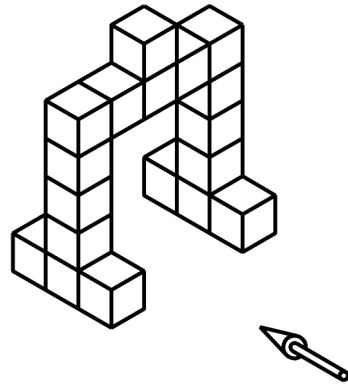
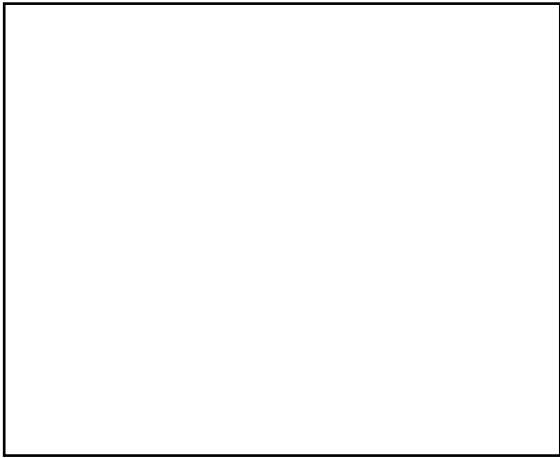
- 6 Shown is a pictorial drawing of a mobile phone.

Complete the sketch of the phone in the space provided.

Colour **or** shade the completed sketch.



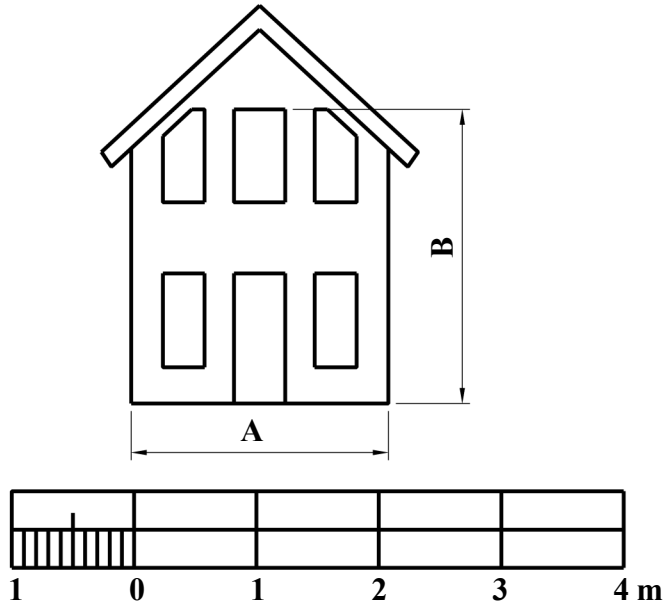
- 7 The figure shows a set of blocks.
Draw, in the space provided, an elevation of the blocks in the direction of the arrow.



- 8 Using the scale provided, **measure** and **write down** the dimensions **A** and **B** of the house shown.

A: _____

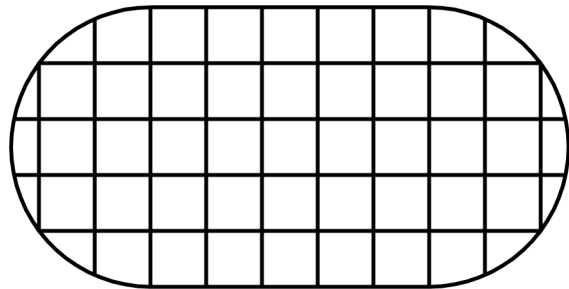
B: _____



- 9 The outline of the plan of a swimming pool is shown on the grid below.
Write down the area of the swimming pool in square units.

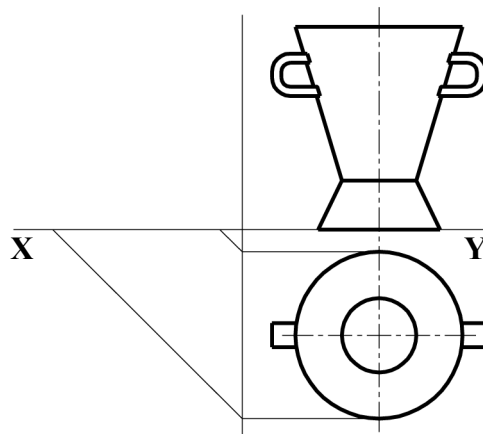
1 square = 1 square unit

Area of pool: _____ square units.

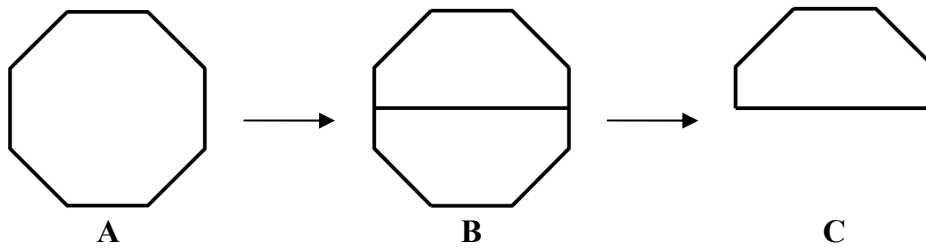


10 The elevation and plan of a trophy are shown.

Complete the end view in the space provided.

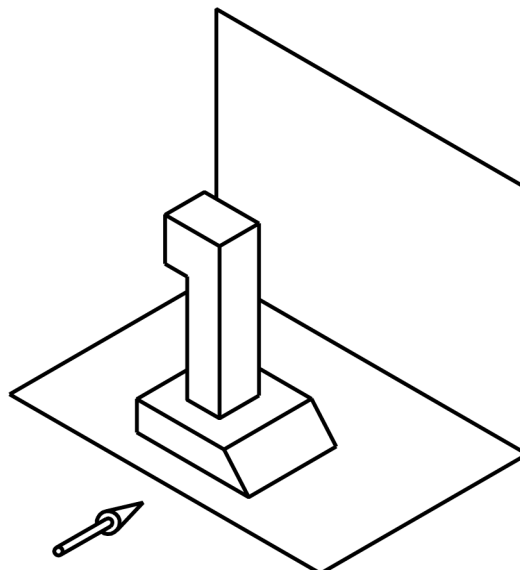


11 List the CAD commands used to produce the figures A to B and B to C below.



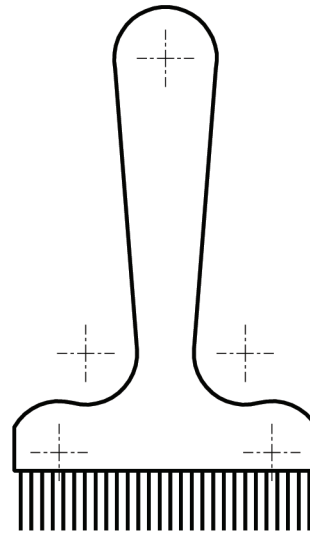
CAD Commands: A → B _____ B → C _____

12 Project the **shadow** cast by the **vacuum cleaner** when the direction of light is parallel to the arrow.

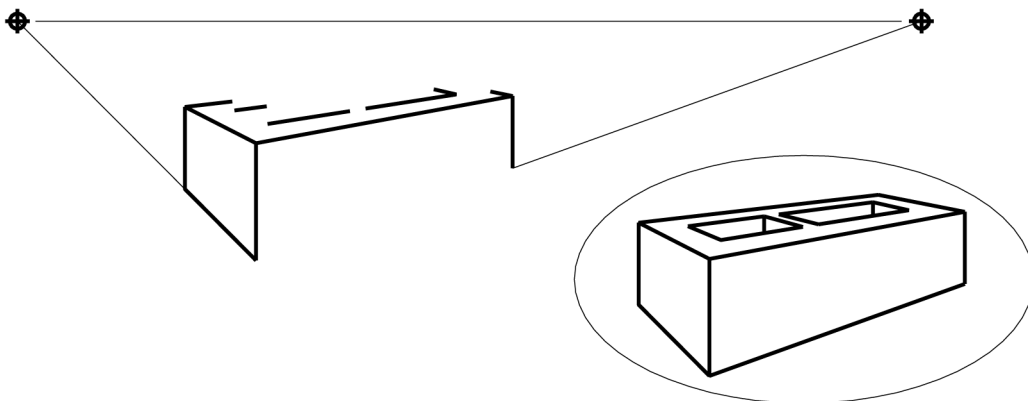


13 The figure shows the outline of a paint brush.

Show clearly how to find all points of contact.



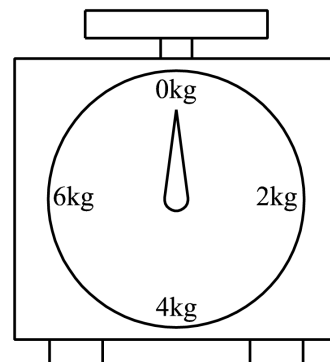
14 The figure shows an **incomplete** perspective drawing of a block. A small 3D graphic of the block is also shown. **Complete** the perspective drawing.



15 The diagram shows a weighing scales. A piece of food is placed on the scales, causing the needle to rotate clockwise through an angle of 180° .

What is the weight of the piece of meat?

Weight of meat: _____



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