



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Junior Certificate Examination 2009

Technical Graphics
Ordinary Level
Section A
(120 marks)

Monday, 15 June
Morning 9:30 - 12:00

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 examination number in the box provided below
 and on all other pages used.

Examination Number:

Centre Number

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

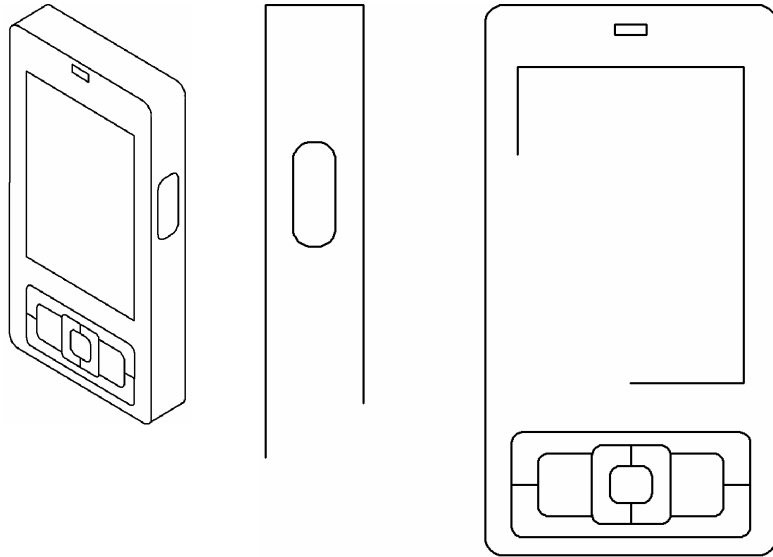
SECTION A. Answer **any ten** questions. All questions carry equal marks.

1

Shown is the **incomplete** elevation and **incomplete** end view of a mobile phone.

Also shown is a 3D graphic of the phone.

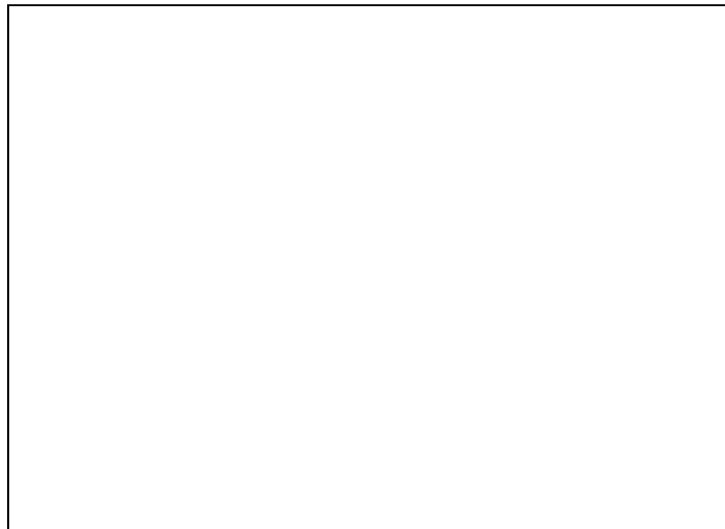
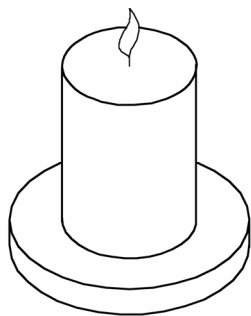
Insert the missing lines in both the elevation and the end view.



2

In the space provided, make a **freehand pictorial sketch** of the candle and holder shown.

Colour **or** shade the completed sketch.



3

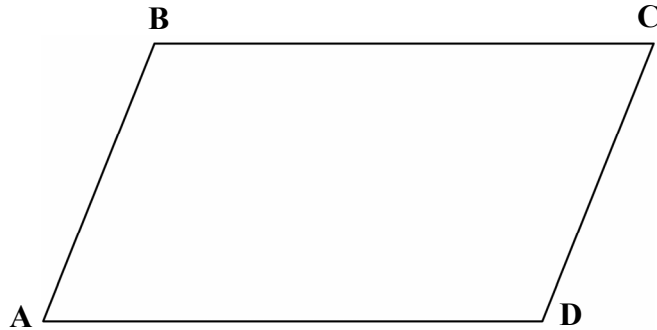
List **one** advantage and **one** disadvantage of a laptop computer, as shown.

Advantage:

Disadvantage:



4 Convert the given parallelogram **ABCD** to a rectangle of equal area.

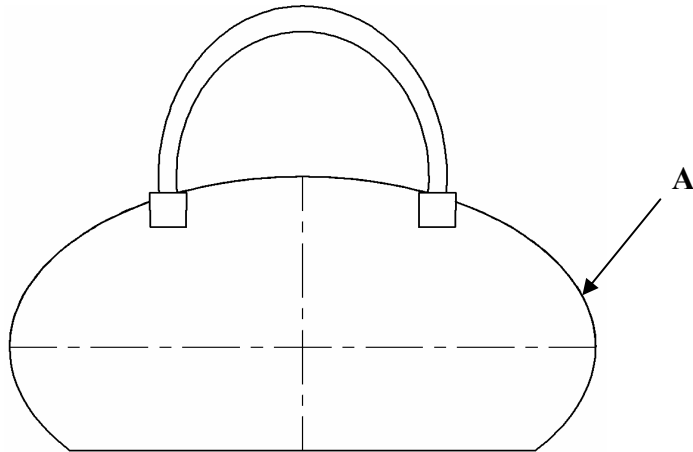


5

The figure shows the design of a bag based on the ellipse.

Locate both **focal points** of the ellipse **A**.

Show clearly all construction lines.

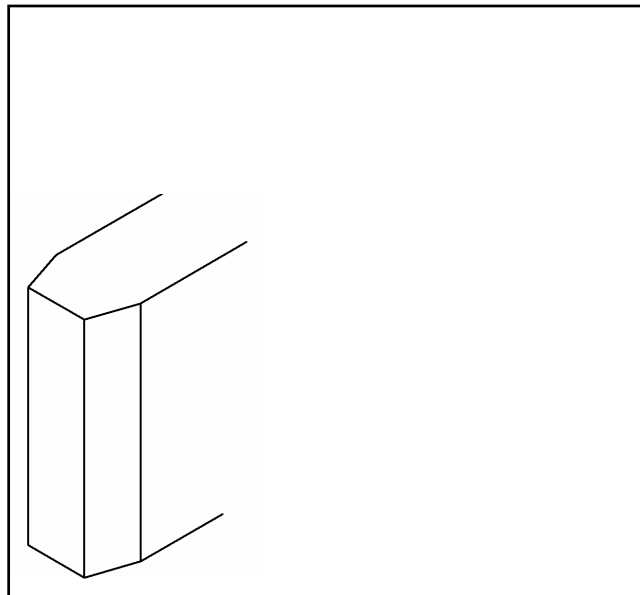
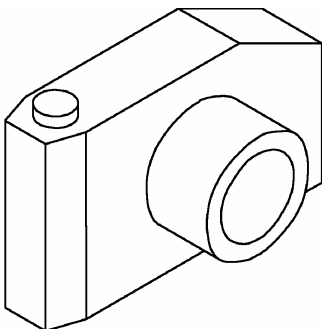


6

Shown is a pictorial drawing of a digital camera.

Complete the sketch of the camera in the space provided.

Colour **or** shade the completed sketch.



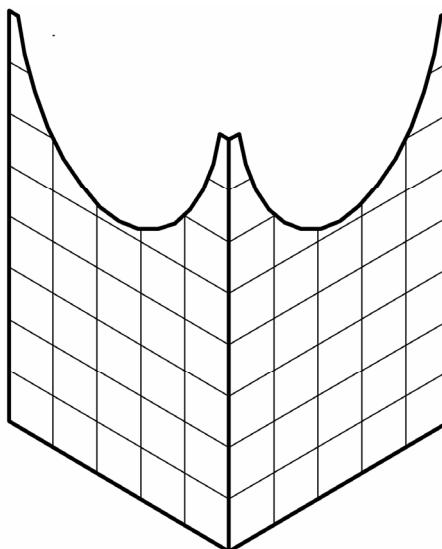
7

The 3D graphic shows the outline of a decorative screen.

Write down the area of the screen in square metres.

1 square = 1 square metre

Area of screen: _____ square metres.

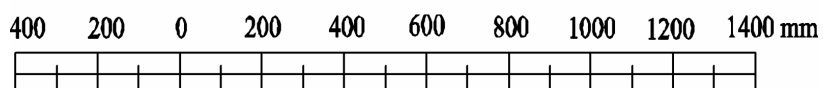
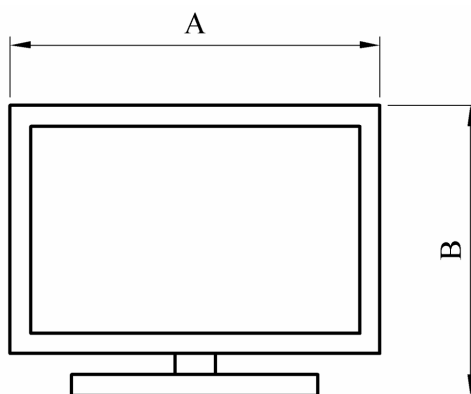


8

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

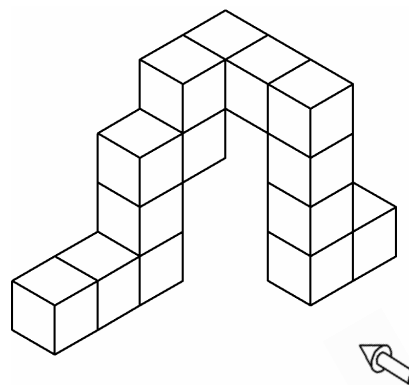
A: _____

B: _____



9

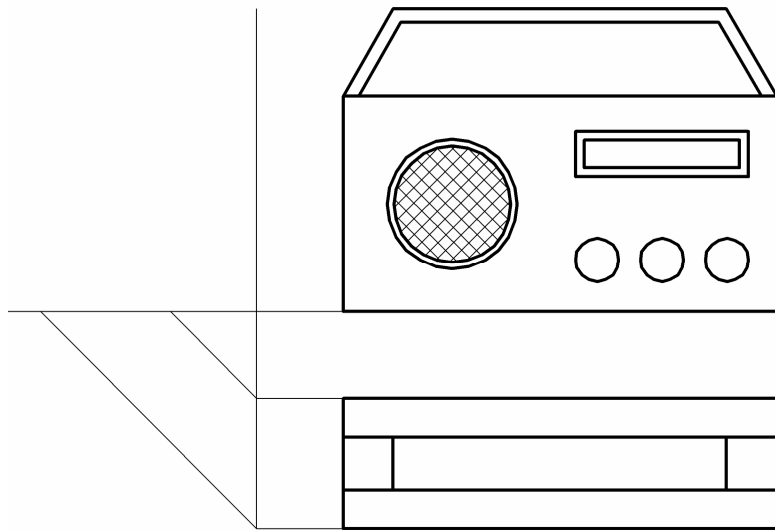
The figure shows a set of blocks. Draw, in the space provided, an elevation of the blocks in the direction of the arrow.



10

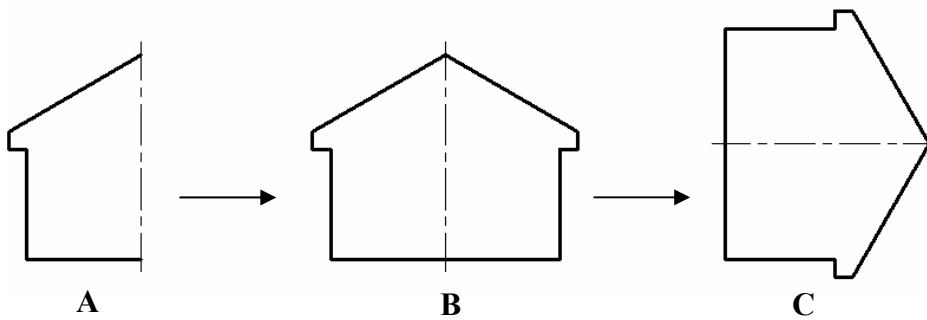
The elevation and plan of a small radio are shown.

Complete the end view in the space provided.



11

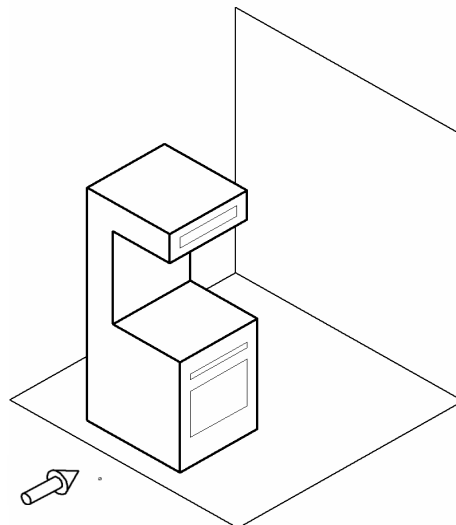
List the CAD commands used to produce the figures A to B and B to C below.



CAD Commands: A → B _____ B → C _____

12

Project the **shadow** cast by the cooker shown when the direction of the light is parallel to the arrow.



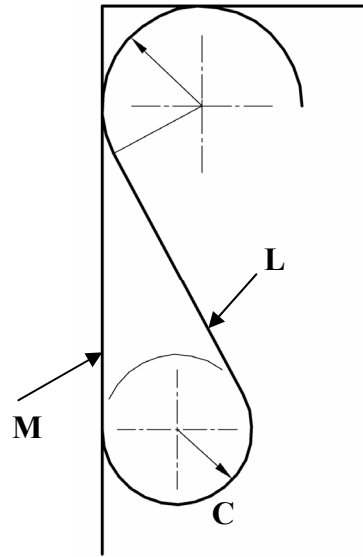
13 The drawing shows a design for a wall bracket.

Locate the **points of contact** between:

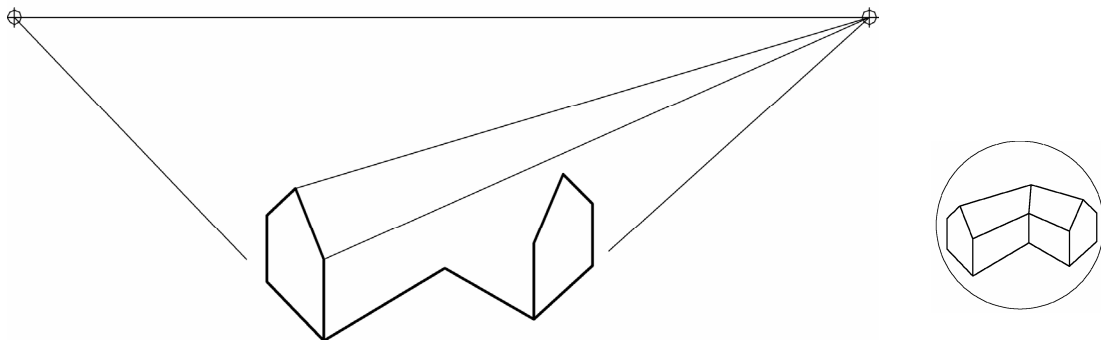
(a) the circle **C** and the line **M**

(b) the circle **C** and the line **L**.

All constructions must be clearly shown.

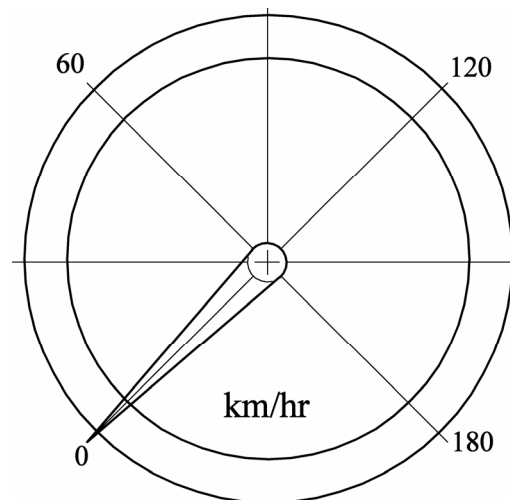


14 The figure shows an **incomplete** perspective drawing of a house. A small 3D graphic of the house is also shown. **Complete** the perspective drawing of the house.



15 The diagram shows a speedometer.

Rotate the needle about the centre of the speedometer to show a speed of **90 km/hr**.



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