



Pre-Junior Certificate Examination, 2012

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

Name:

School:

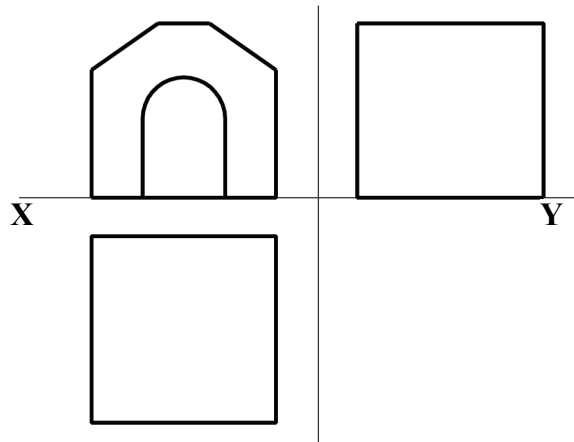
Teacher:

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

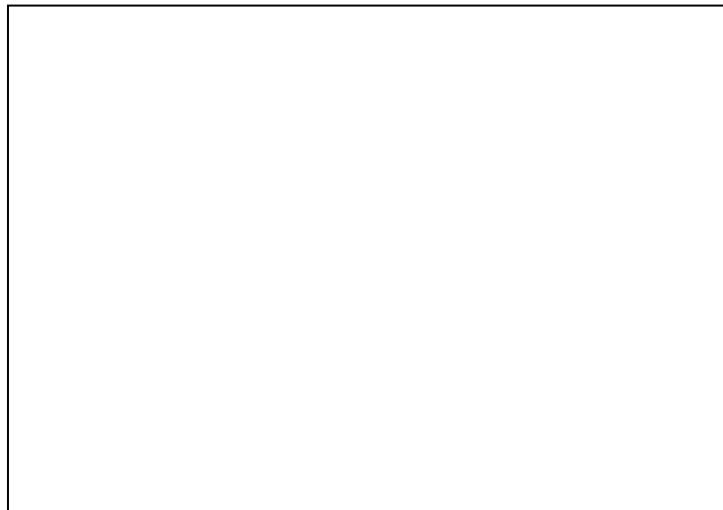
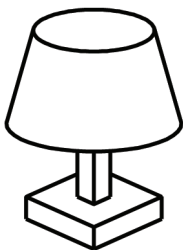
SECTION A. Answer **any ten** questions. All questions carry equal marks.

- 1** The **incomplete plan**, **incomplete end view** and elevation of a dog's house are shown.

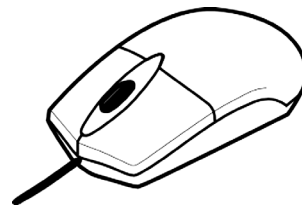
Insert the missing lines in both the plan and the end view.



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



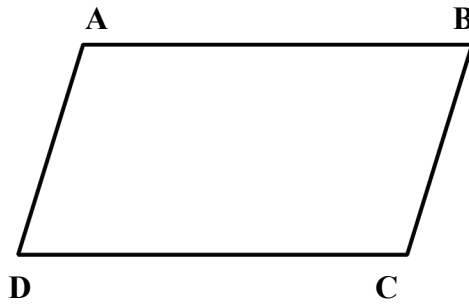
- 3** Name the computer device shown and state its use.



Name: _____

Use: _____

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



- 5 Fig.1 shows an archway. The lines PA and QA are tangents to the ellipse.

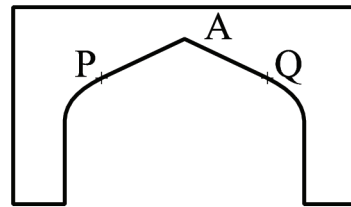


Fig.1

Complete Fig.2 by drawing tangents to the ellipse at P and Q.

F and F₁ are the focal points of the ellipse.

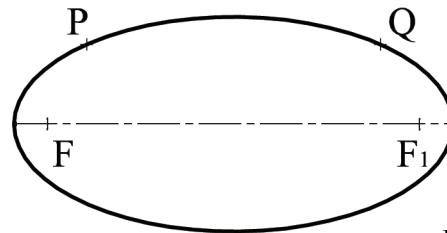
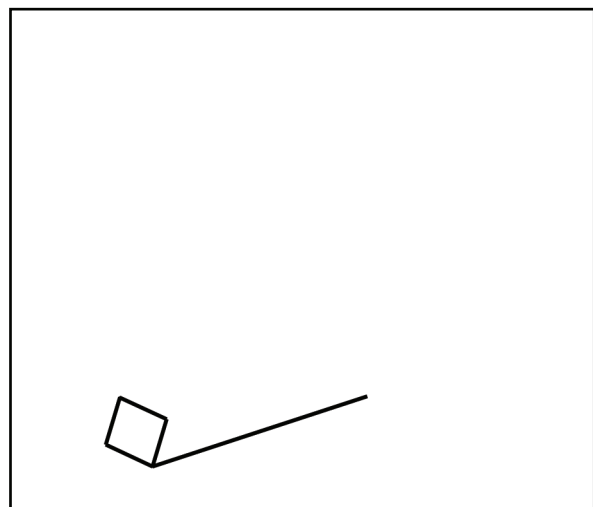
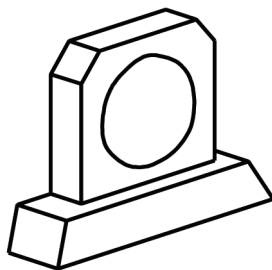
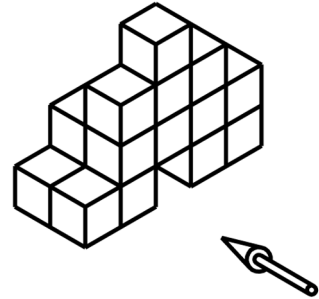
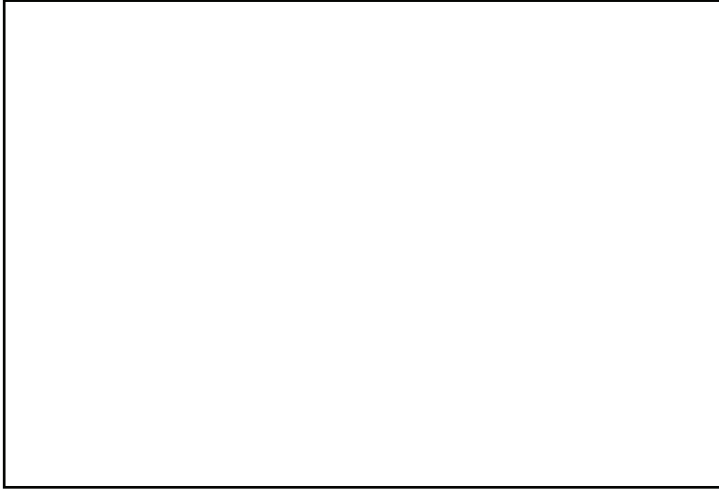


Fig.2

- 6 A pictorial drawing of a mantelpiece clock is shown. Complete the sketch of the clock in the space provided. Colour or shade the completed sketch.



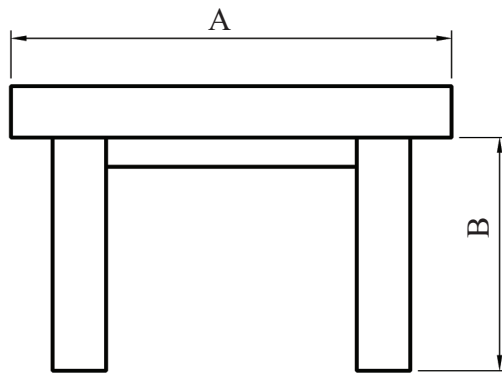
- 7 The figure shows a set of blocks.
Draw, in the space provided, an elevation of the blocks in the direction of the arrow.



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

A: _____

B: _____

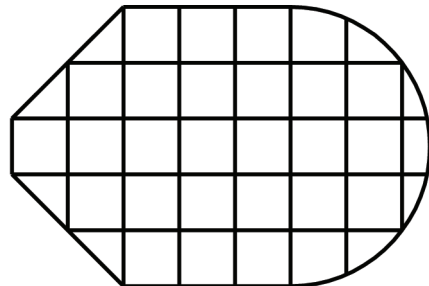


- 9 The outline of a garden patio is shown.

Write down the area of the patio in square metres.

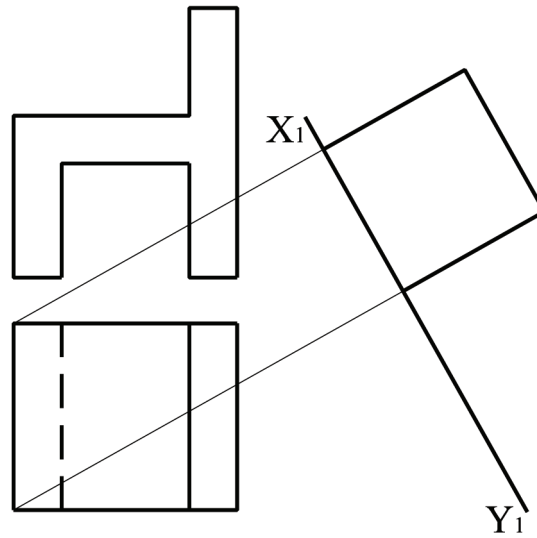
1 square = 1 square metre.

Area of the patio: _____ square metres.

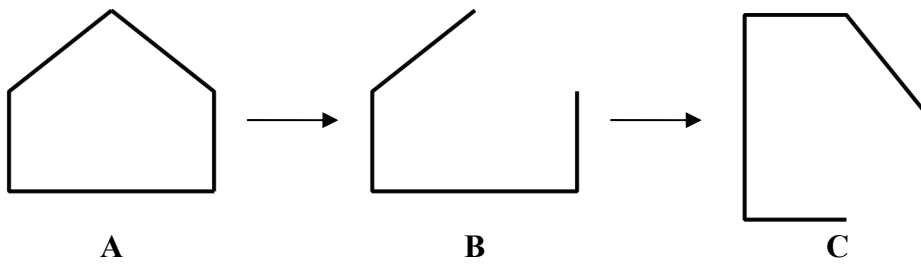


10 The elevation and plan of a seat are shown.

Complete the auxiliary elevation of the seat on the X_1-Y_1 line shown.

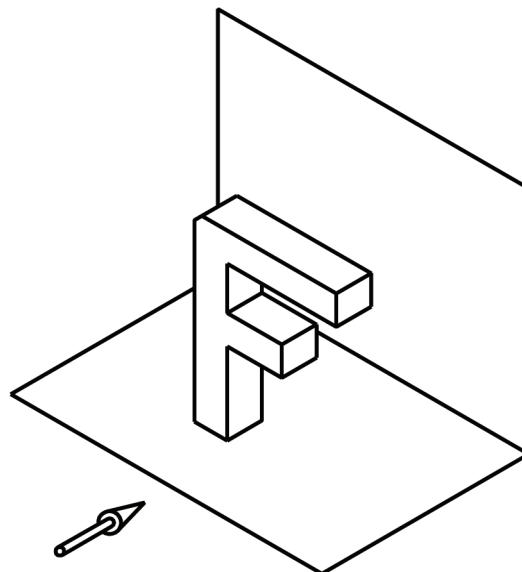


11 List the CAD commands used to produce the figures A to B and B to C.



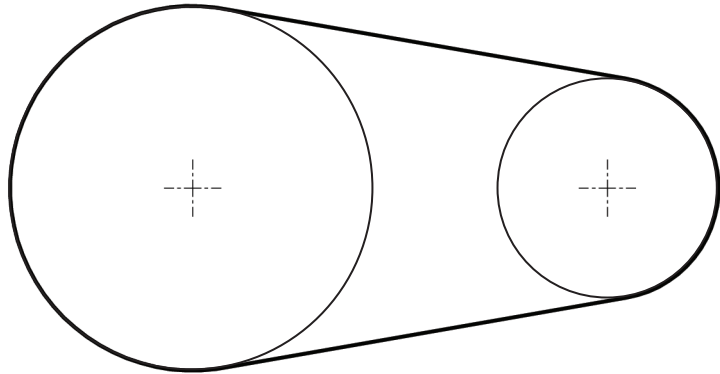
Commands: A → B _____ B → C _____

12 Draw the **shadow** cast by the letter F when the direction of light is parallel to the arrow.

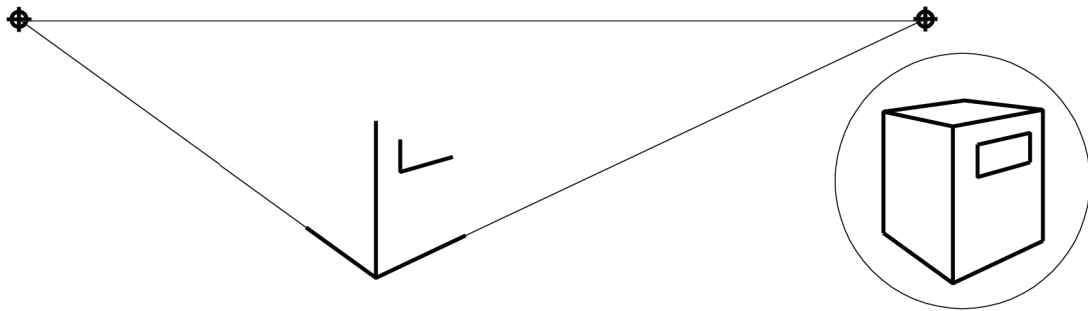


13 The figure shows the outline of a pulley with wheels.

Show the points of contact between the pulley belt and the **two wheels**.



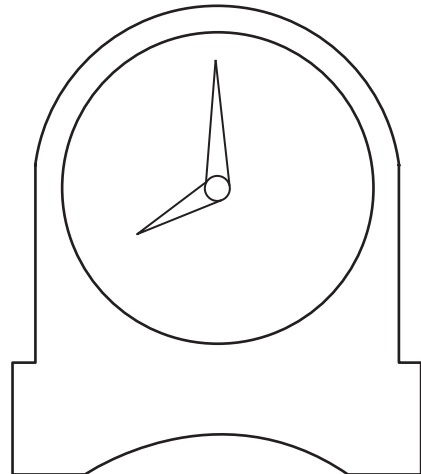
14 The figure shows an incomplete perspective drawing of a litter bin. A sketch of the litter bin is also shown. Complete the perspective drawing.



15 The diagram shows a clock which is reading 8 o'clock.

What will the time be if the minute hand rotates clockwise through an angle of 120 degrees?

Time: _____



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