



Pre-Junior Certificate Examination, 2016

***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.

Name:

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School:

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Teacher:

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School Stamp

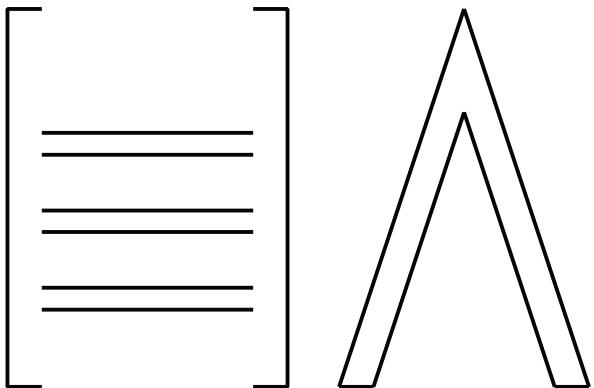
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Question	Mark
Section A	
1	
2	
3	
4	
5	
6	
TOTAL	
GRADE	

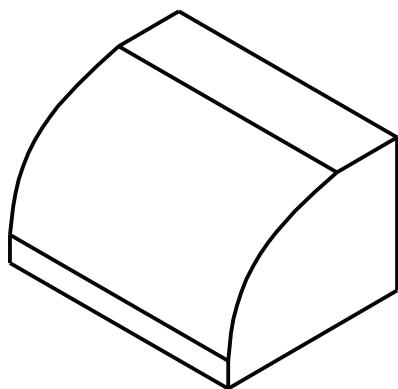
SECTION A. Answer **any ten** questions. All questions carry equal marks.

1. Shown is the **incomplete** elevation and **incomplete** end view of a 3 step ladder.

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



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



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

Advantage:

Disadvantage:



4. Fig. 1 shows a transport logo inscribed in the square ABCD.

Draw the enlarged logo in the given square ABCD in Fig. 2.

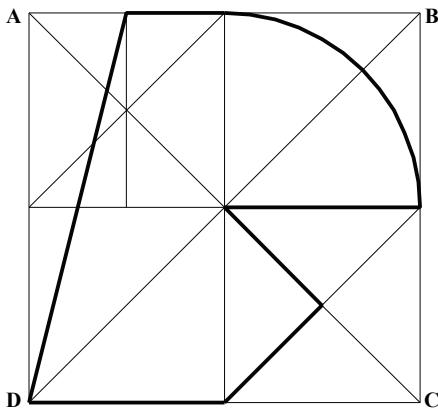


Fig. 1

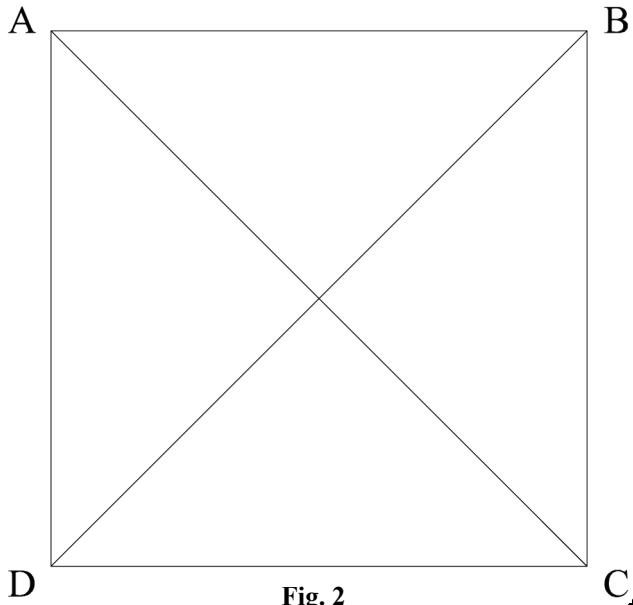


Fig. 2

5. Fig. 1 shows the outline of a doll's face based on an ellipse and two circles.

Locate the focal points of the ellipse in Fig. 2 and complete the doll's face by drawing the eyes to the given dimensions, as shown.

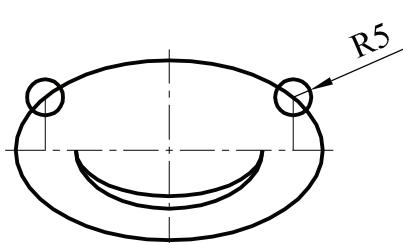


Fig. 1

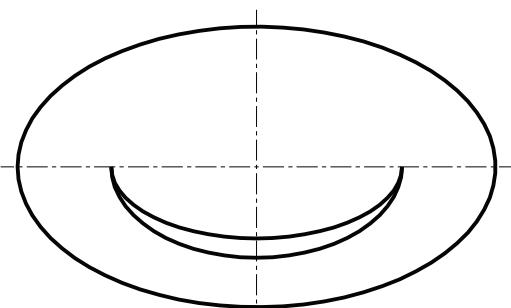
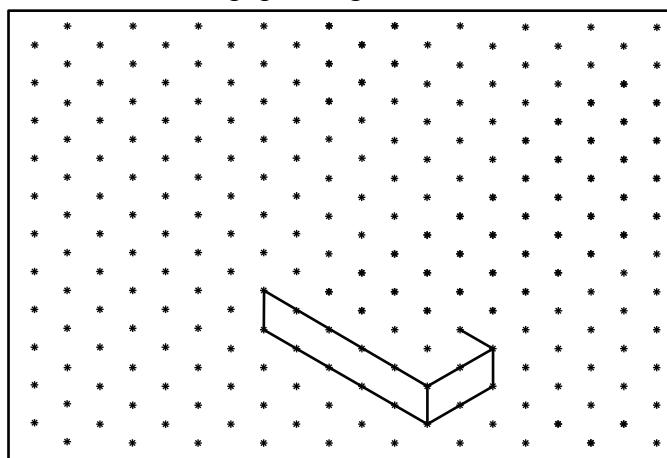
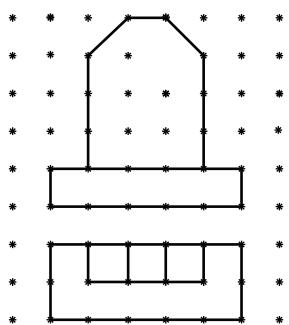


Fig. 2

6. The elevation and plan of a paperweight are shown.

Make a well proportioned **freehand sketch** of the paperweight in the space provided.

Colour **or** shade the completed sketch.

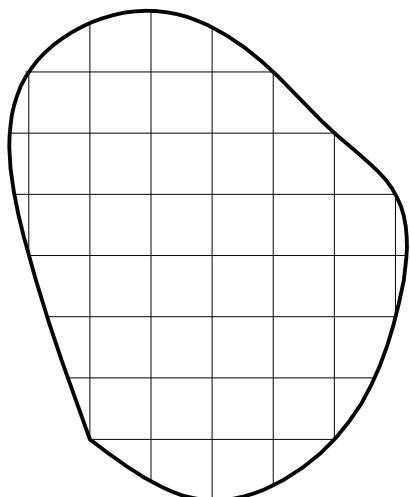


7. The outline of garden pond is shown.

Write down the area of the lake in square units.

1 square = 1 square unit.

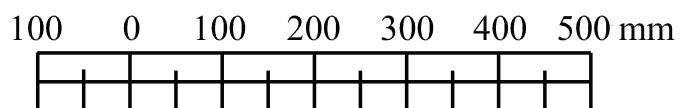
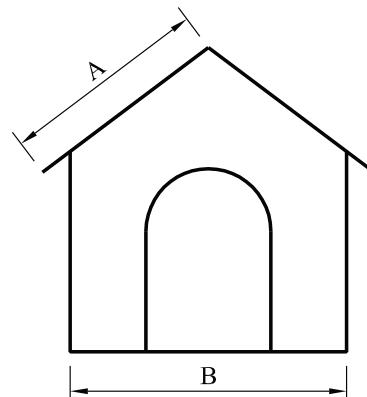
Area of the pond: _____ square units.



8. Using the scale provided, **measure** and **write down** the dimensions A and B for the dog kennel shown.

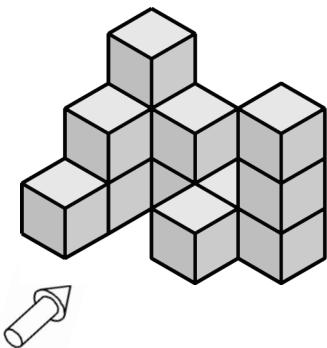
A: _____

B: _____

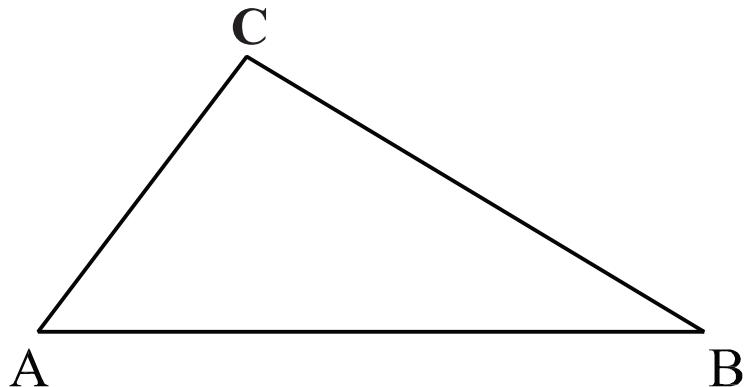


9. The figure shows a set of blocks.

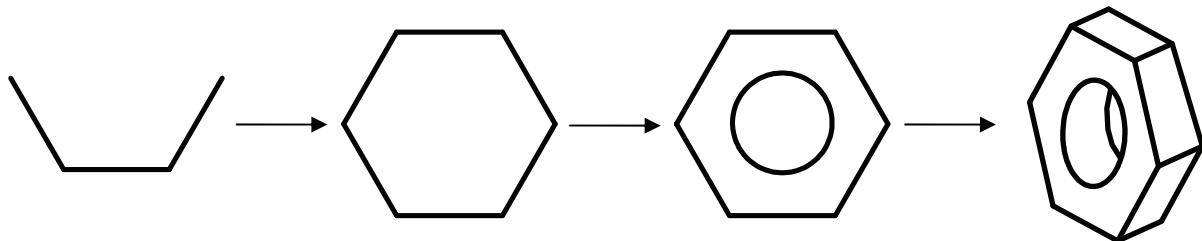
Draw, in the space provided, the elevation of the blocks in the direction of the arrow.



10. Draw a line from C which will divide the area of the triangle ABC into two equal parts.



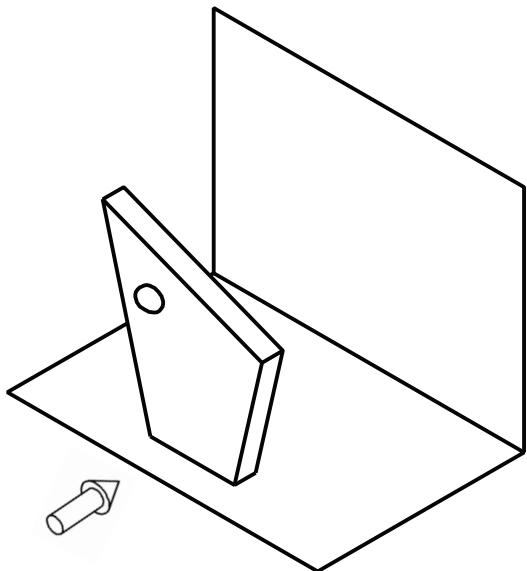
11. Write down **any two** CAD commands used to produce the drawing.



Any **two** CAD commands: _____

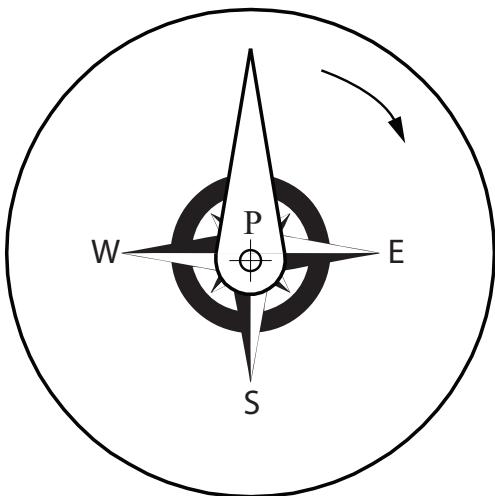
12. The graphic shows a trophy.

Draw the **shadow** cast by the trophy when the light source is parallel to the direction of the arrow.

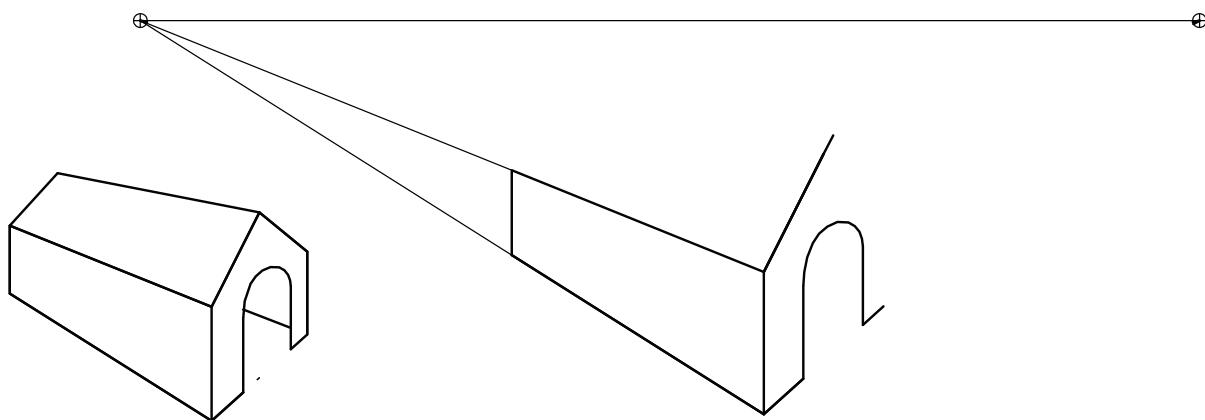


- 13.** The diagram shows a compass.

Rotate the needle in the direction of the arrow through 120° about the point **P** and complete the drawing of the needle in the rotated position.

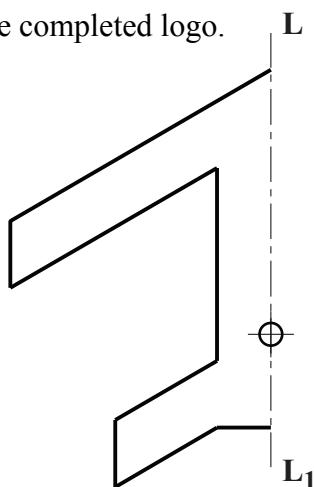


- 14.** The figure shows an incomplete two point perspective drawing of a dog kennel.
A small 3D graphic of the dog kennel is also shown.
Complete the perspective drawing of the dog kennel.



- 15.** Complete the design for the logo by constructing an axial symmetry in the line **LL₁**.

Colour **or** shade the completed logo.



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