

**A****WARNING**

You must return this paper with your answerbook, otherwise marks will be lost.

Examination Number \_\_\_\_\_

An Roinn Oideachais

JUNIOR CERTIFICATE EXAMINATION

**TECHNICAL GRAPHICS**  
**ORDINARY LEVEL**

SAMPLE EXAMINATION PAPER

**TIME 2½ HOURS**

**Total Marks 400**

For examiners use only

QUESTION	MARK
Section A (total)	
Section B 1	
2	
3	
4	
5	
6	
TOTAL →	

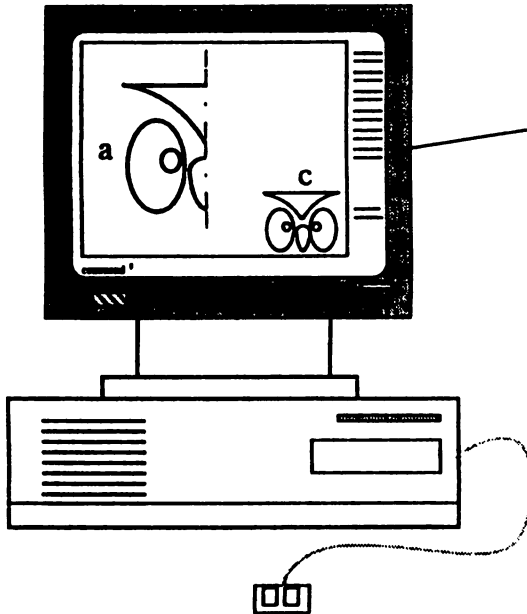
**INSTRUCTIONS**

1. Answer any twelve of the short answer questions in Section A (120 marks )  
(all questions in this Section carry equal marks )
2. Answer the questions in the space provided showing all construction lines.  
(Sketches should be in pencil)
3. Hand up Section A ( this Section ) at the end of the examination.
4. Answer any four of the six questions in Section B (280 marks )  
( all questions in Section B carry equal marks )
5. Ensure you write your examination number on all the sheets you hand up.

Centre number

# SECTION A (ANSWER ANY TWELVE QUESTIONS - All questions carry equal marks)

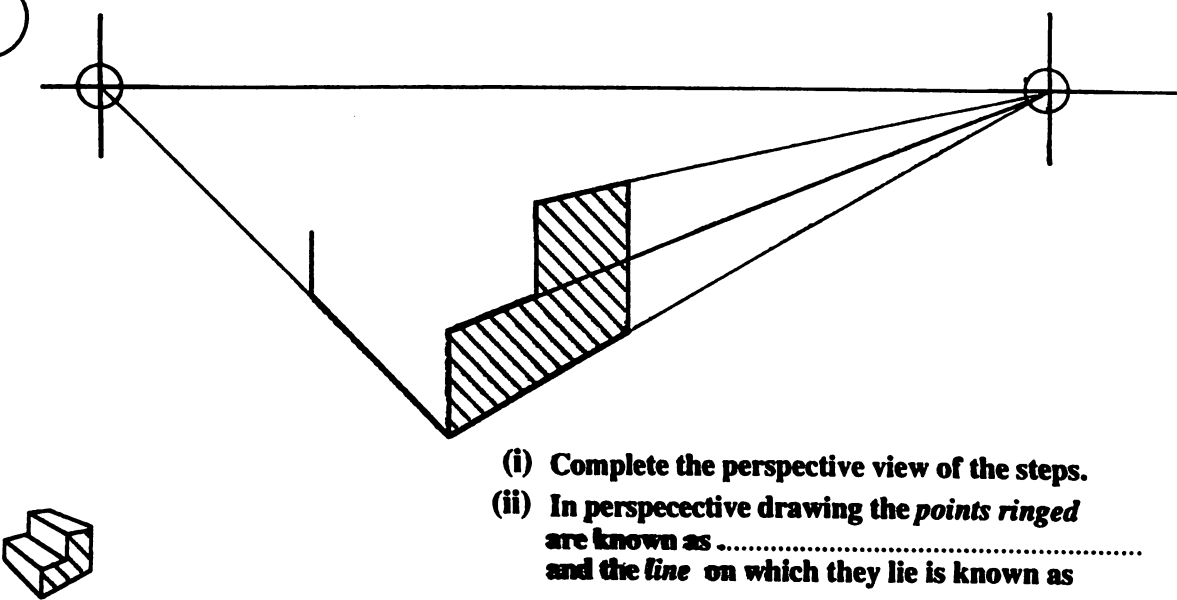
1



Which CAD commands might you use to complete the owls head as at (b) without further drawing ? and to convert it to the size at (c) ?

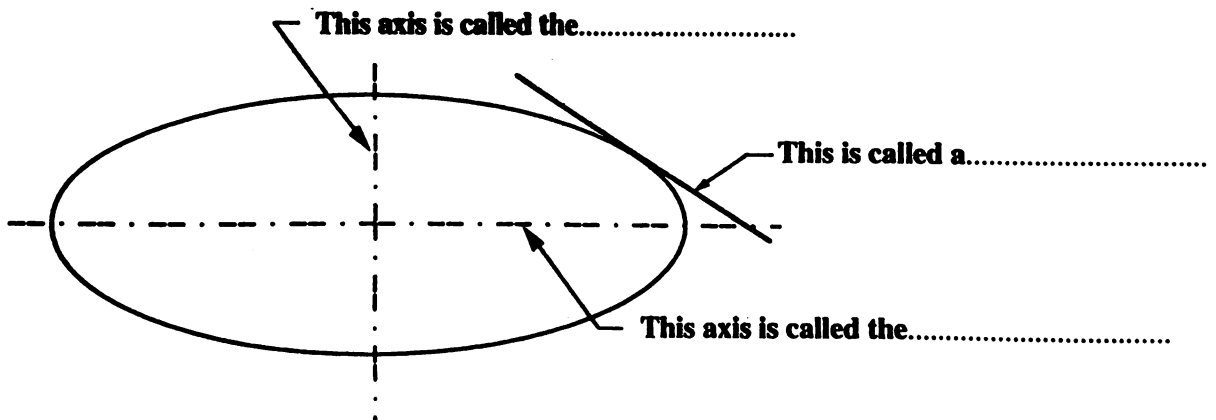
a to b:.....  
 b to c:.....  
 .....

2



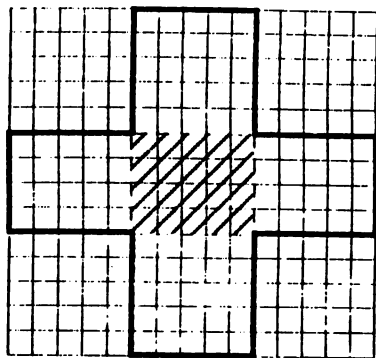
- (i) Complete the perspective view of the steps.
- (ii) In perspective drawing the *points ringed* are known as .....  
 and the *line* on which they lie is known as .....

3

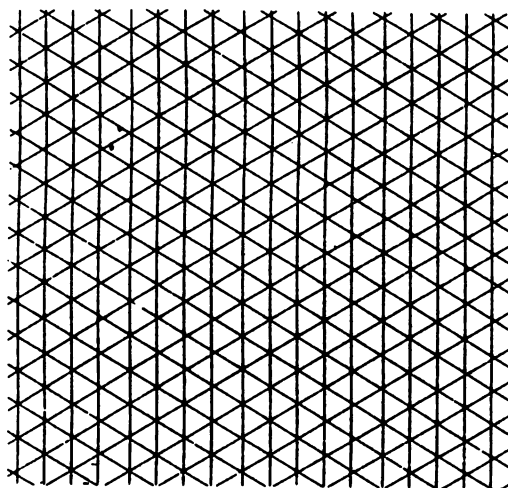


Find a focal point on the ellipse

4

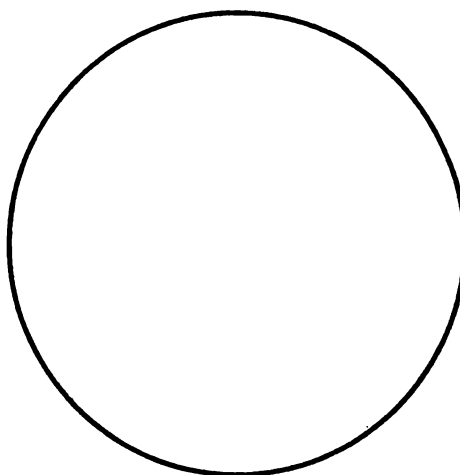


The sketch shows the development of an open container. Make an isometric sketch of the assembled container in the grid.



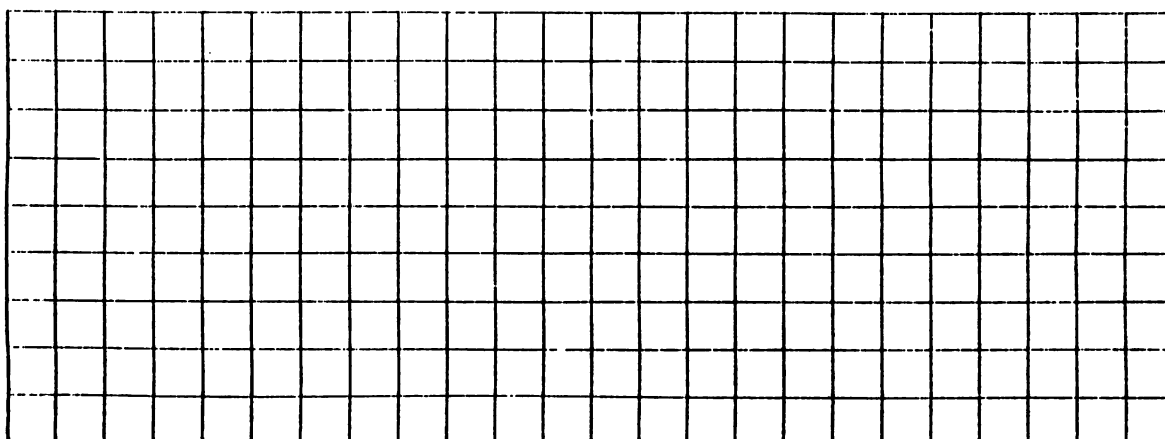
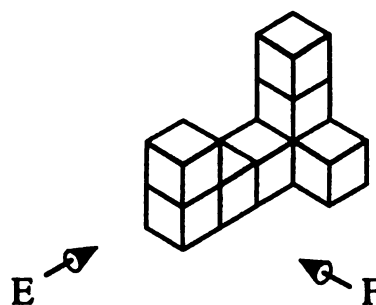
5

- (a) Draw a chord on the given circle.
- (b) Show how to find the centre of the circle.

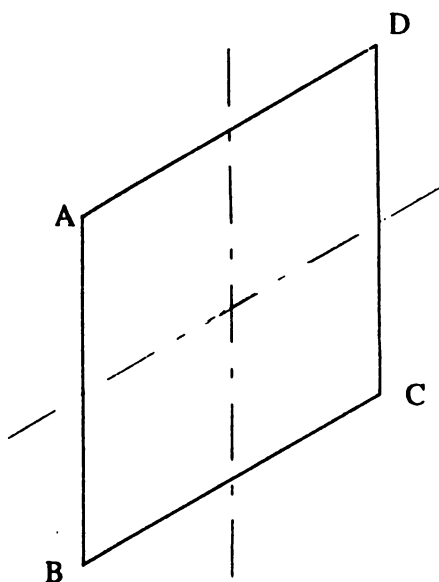
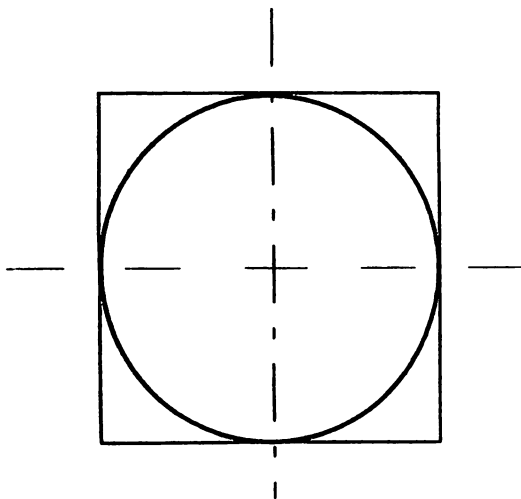


6

Draw the front view 'F', the end view 'E' and a plan view on the grid provided.

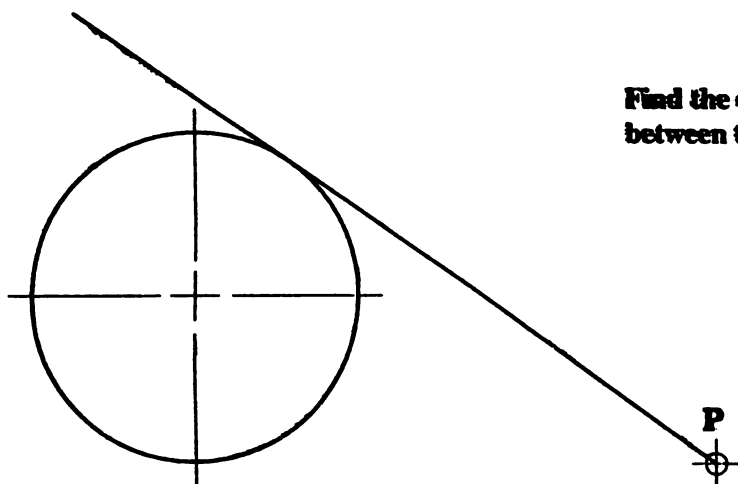


7



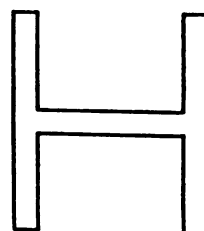
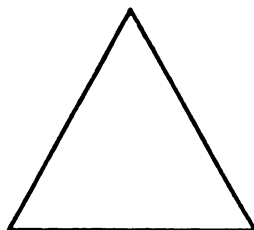
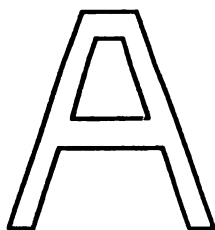
**ABCD is an isometric view of the square.  
Construct the image of the circle in this view.**

8



**Find the exact point of contact  
between the tangent and the circle**

9

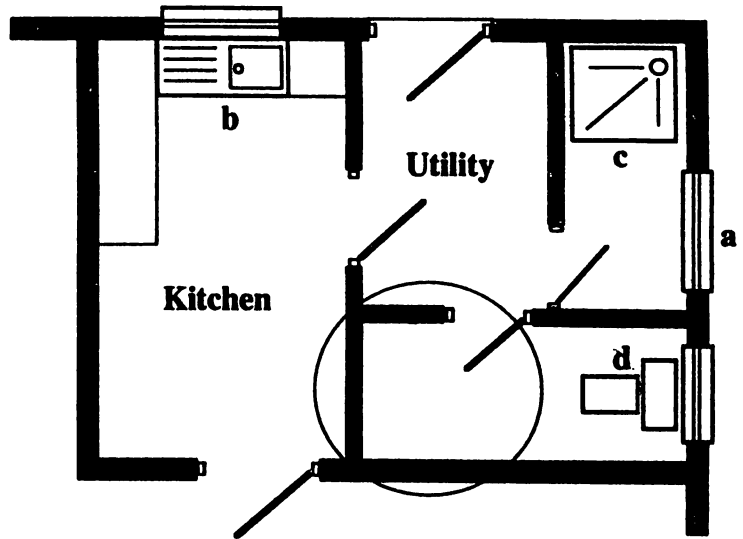


**Show all the axes of symmetry  
in these three shapes.**

10

The drawing shows the part plan of a dwelling house. Identify the symbols at a, b, c, and d and insert the symbol for a *washhand basin* in the position ringed.

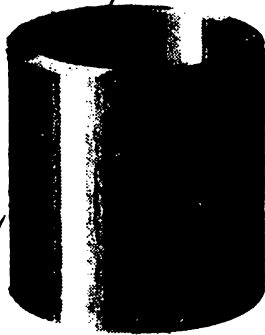
- a.....  
b.....  
c.....  
d.....



11

Answer (a) or (b)

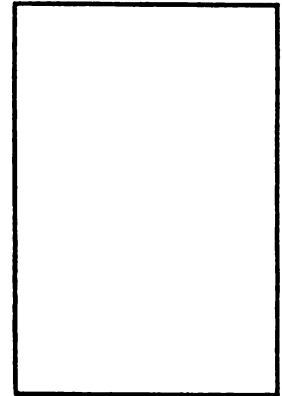
(a)



(a)

Show the shadow cast by the pipe

(b)

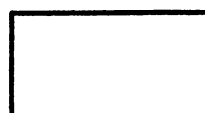
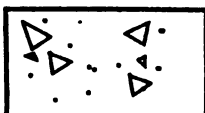


(b)

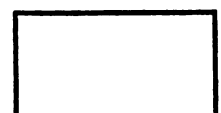
Shade the rectangle to represent a cylinder as (shown in the thumbsketch).

12

Materials symbols



sheet glass

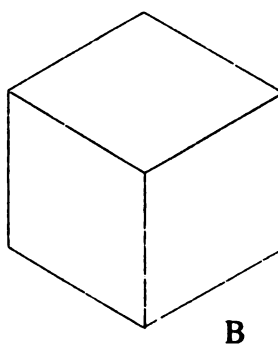
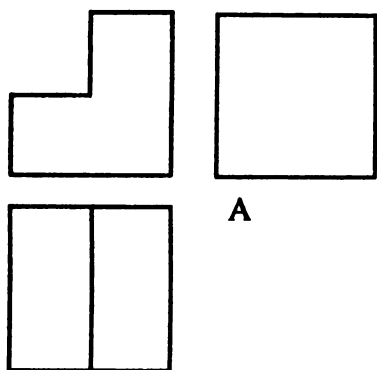


sawn wood  
(cross section)

Write the name of the above symbols

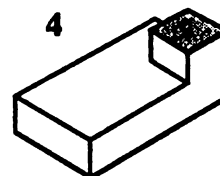
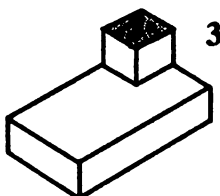
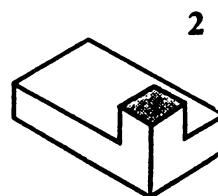
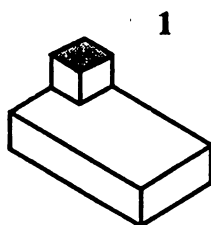
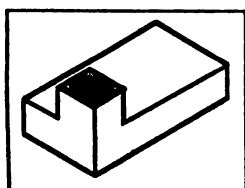
In the boxes show the symbols for the above materials.

13



Complete the side view at 'A' and sketch the pictorial view in the box at 'B'.

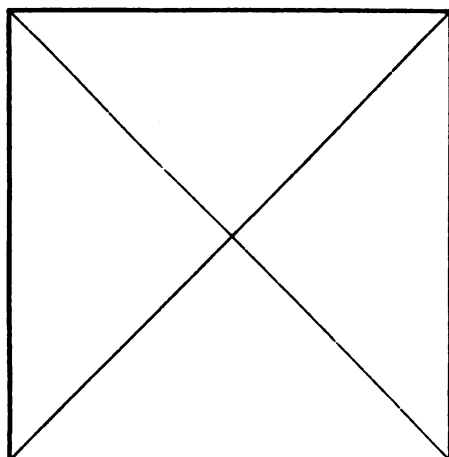
14



Which one is the same as the one in the box ? (please tick)

1	2	3	4
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15



Inscribe an octagon in the square