



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Junior Certificate Examination 2008

Technical Graphics
Higher Level
Section A
(120 marks)

Monday, 16 June
Morning 9:30 - 12:30

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:

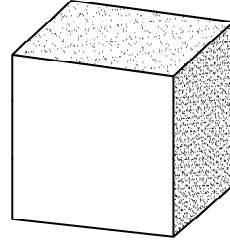
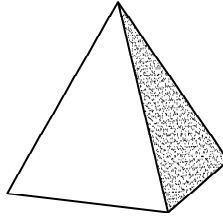
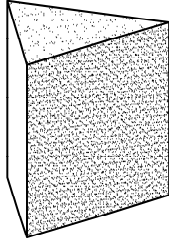
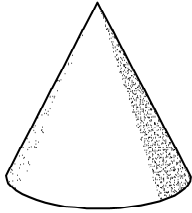
Centre Number

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

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

- 1.** Fill in the label for each solid by selecting from the list below.

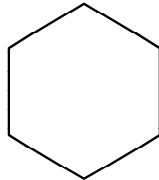
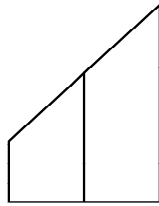
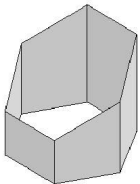
Cube	Prism	Cone	Pyramid
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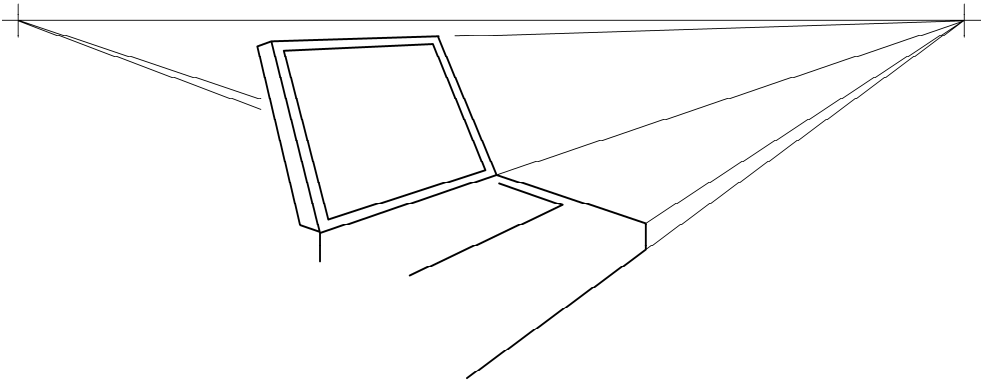
1. _____ 2. _____ 3. _____ 4. _____

- 2.** The figure shows the plan, elevation and a small sketch of an open desk tidy. Draw the development of the sides of the desk tidy.

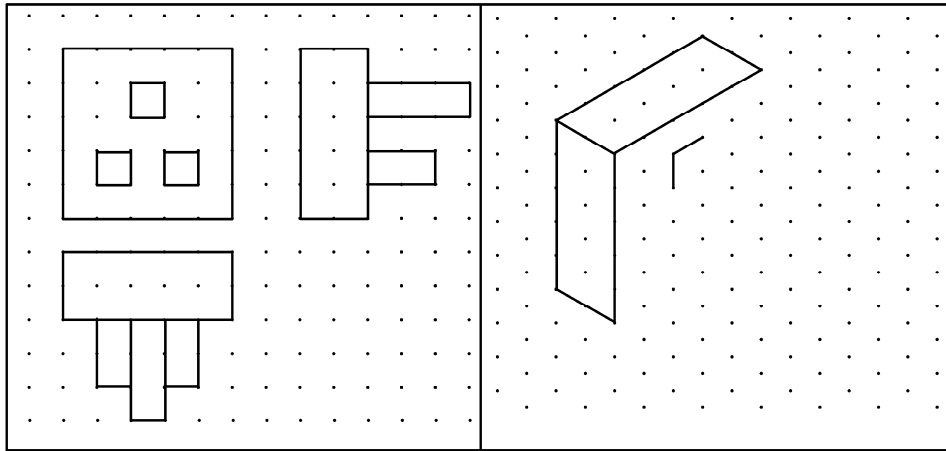
Note: It is not necessary to include the base.



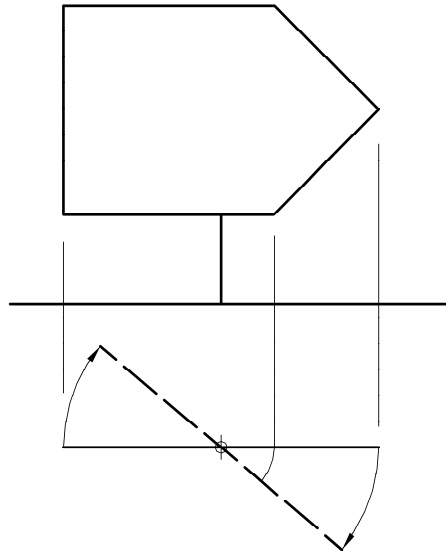
- 3.** The figure shows the incomplete perspective drawing of a laptop computer. Complete the perspective drawing of the laptop computer.



4. The elevation, plan and end view of a plugtop are shown on the square grid. Complete the pictorial sketch of the plugtop. Colour **or** shade the completed sketch.



5. Complete the elevation of the given road sign in its rotated position, as shown by the broken line in plan.



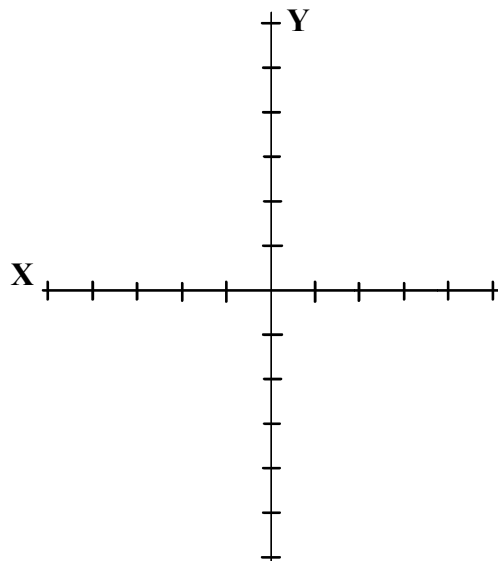
6. The X and Y axes shown are marked at intervals of 5 units.

Draw the triangle **ABC** using the following coordinates:

A (5, -20)

B (-15, 15)

C (20, -10)

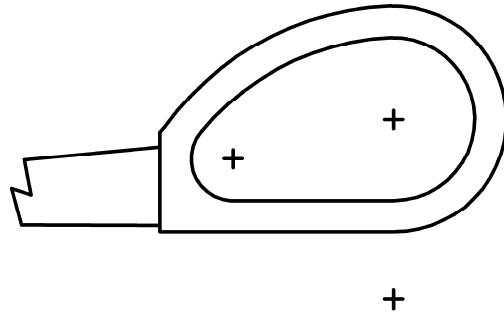


7.

The figure shows a portion of the handle of a scissors.

The centres of the arcs are shown.

Show clearly all points of contact.

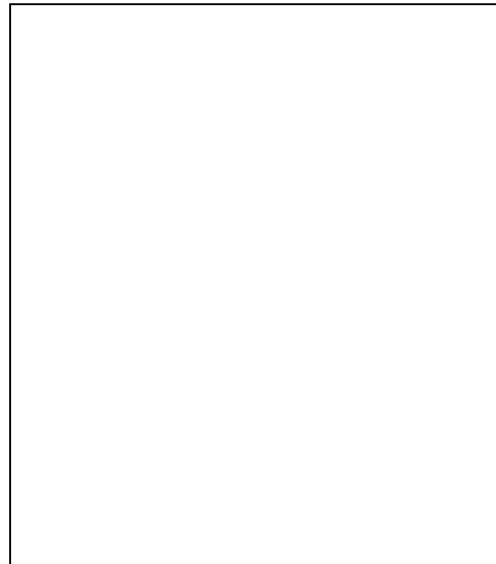
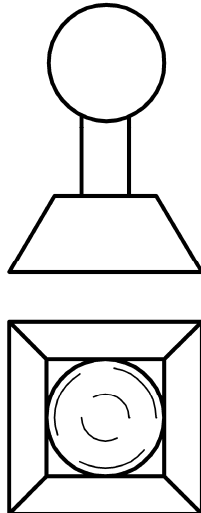


8.

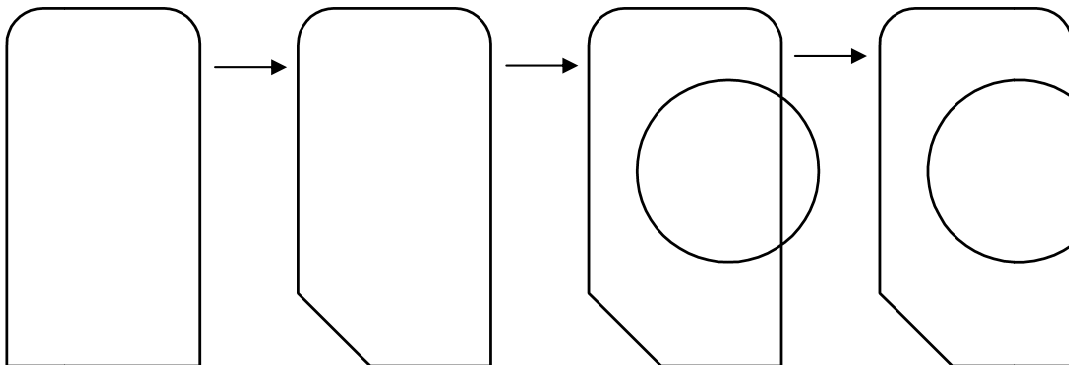
The elevation and plan of a computer joystick are shown.

In the space provided, draw a **freehand pictorial sketch** of the joystick.

Colour **or** shade the sketch.

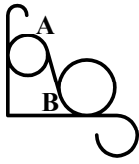


9. List the CAD commands used to edit the figure as shown in the sequence below.



CAD Commands:

10.



The sketch above shows the design of a bracket for a hanging basket.

Complete the portion of the bracket shown at **Fig. 1** by constructing a tangent from **A** to **B**.

Show all constructions.

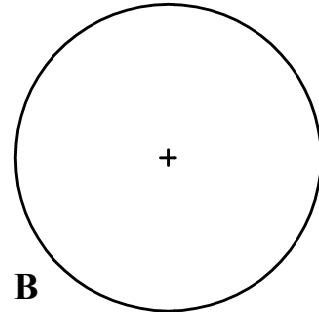
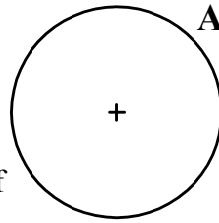


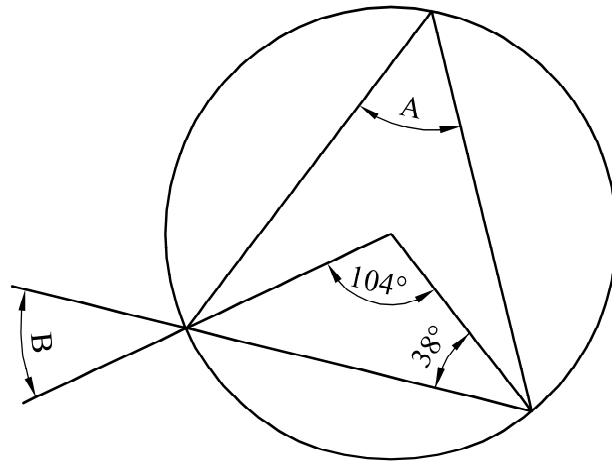
Fig. 1

11.

Write down the measure of the angles marked **A** and **B**.

A = _____

B = _____

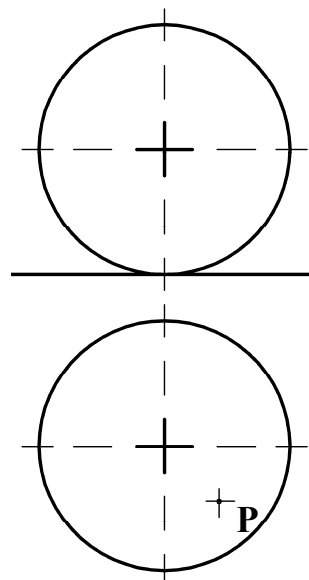


12.

The figure shows the plan and elevation of a football.

The position of the valve **P** is shown in plan.

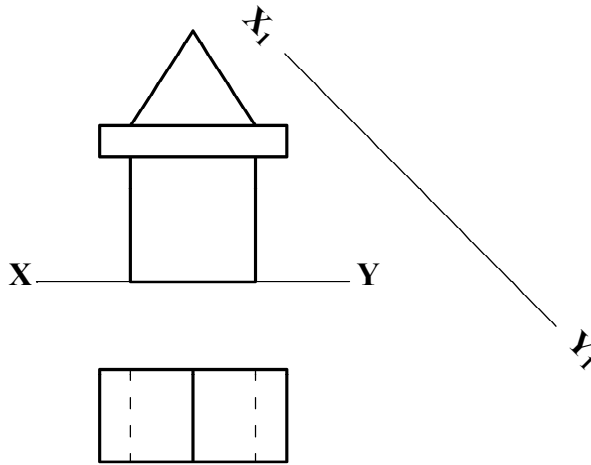
Locate the position of the valve in elevation.



13.

The figure shows a plan and elevation of wooden playing blocks.

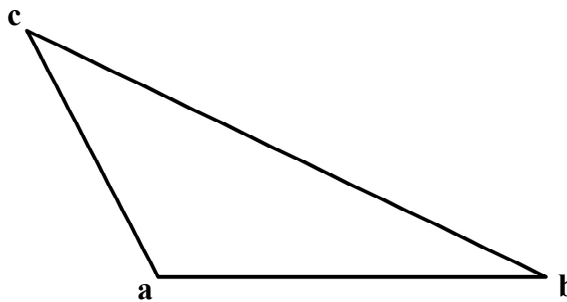
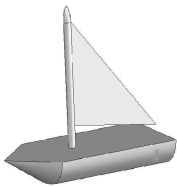
Project an auxiliary elevation of the blocks on the X_1Y_1 line shown.



14.

The figure shows a triangular sail **abc** of a boat. Also shown is a small sketch of the boat.

Draw a rectangular sail equal in area to the triangular sail **abc**. Show all construction lines.

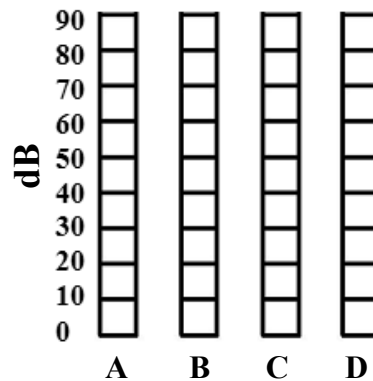


15.

The figure shows the graphic equaliser of a music amplifier, which measures in decibels (dB).

Shade the figure to indicate the following decibel levels:

- A - 20 dB
- B - 70 dB
- C - 40 dB
- D - 80 dB



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