



Junior Certificate Examination 2006

Technical Graphics
Higher Level
Section A (120 marks)

Monday 19 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:

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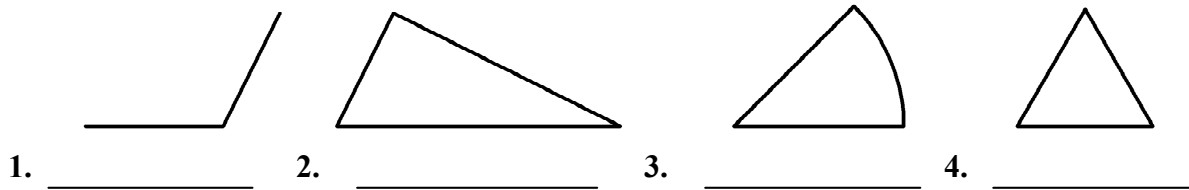
Centre Number

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

1.

Fill in the label for **each** diagram by selecting from the given table.

Table			
Equilateral	Obtuse	Scalene	Sector

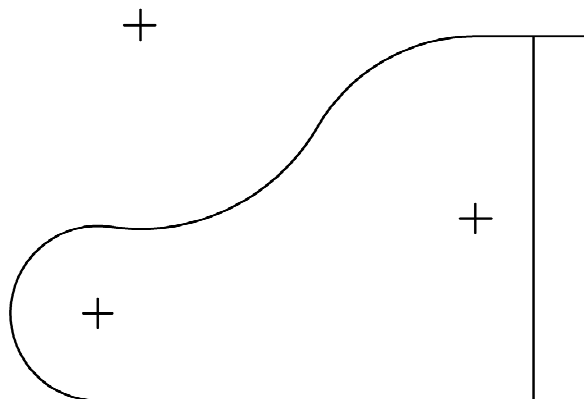


2.

The diagram shows the plan of a grand piano consisting of arcs and lines.

The centres of the arcs are also shown.

Show **all** the points of contact.



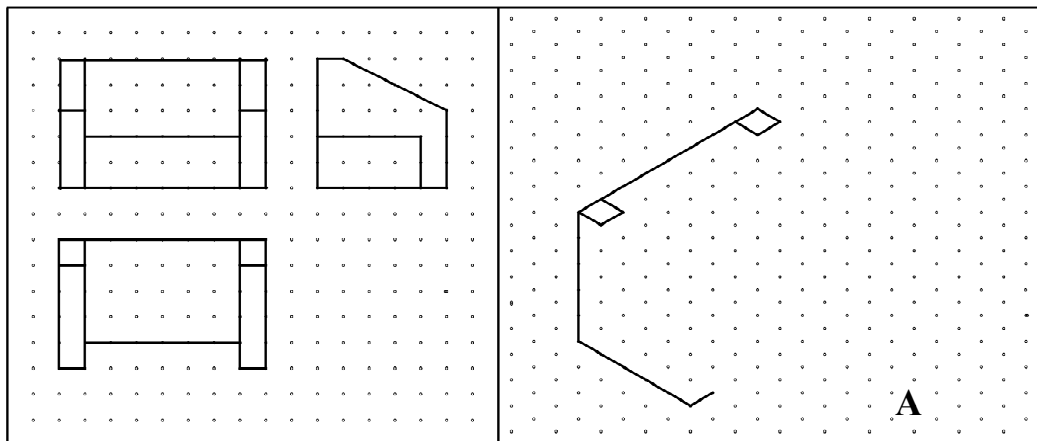
3.

A and **B** are the locations of two houses which are to be connected to the water main **L**.

Find a connection point **P** on line **L** so that the angle APB is 90° .



4. The square grid shows the elevation, plan and sectional end view of a sofa. Complete the pictorial sketch **A** of the sofa.



5. The pictograms shown are from the departure lounge of an airport. What activity does each pictogram suggest ?



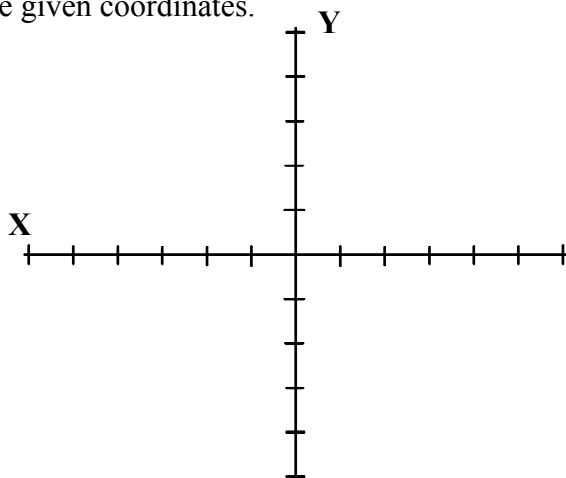
6. The **X** and **Y** axes shown are marked at intervals of 10 units. Draw the figure **ABCD** using the given coordinates.

A (-30,30)

B (40,30)

C (20,-20)

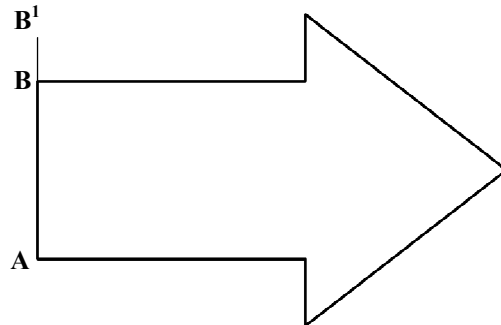
D (-50,-20)



7.

The figure shows a direction arrow.
Draw a similar arrow with height **AB**
increased to **AB¹**.

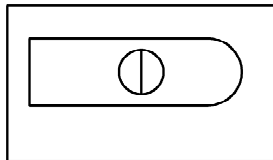
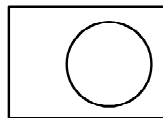
Colour **or** shade your answer.



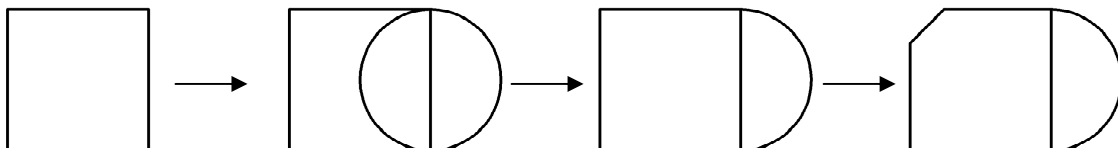
8. The elevation, plan and end view of a pencil sharpener are shown.

Draw a **freehand** pictorial sketch of the sharpener in the space provided.

Colour **or** shade your sketch.



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

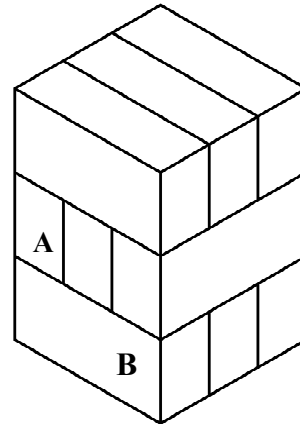


Commands used: _____

- 10.** The figure shows a wooden puzzle consisting of identical blocks.
State the number of blocks in contact with the blocks marked **A** and **B**.

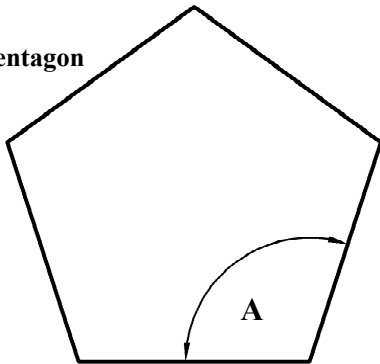
Block **A** is in contact with _____ other blocks.

Block **B** is in contact with _____ other blocks.

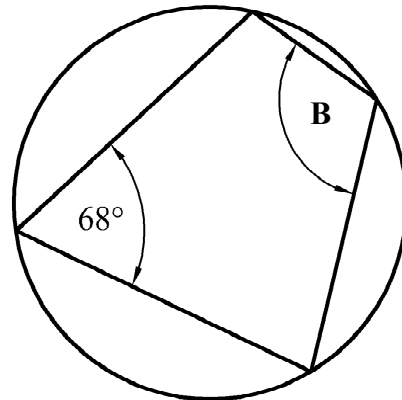


- 11.** State the measure of the angles marked **A** and **B**.

Regular pentagon

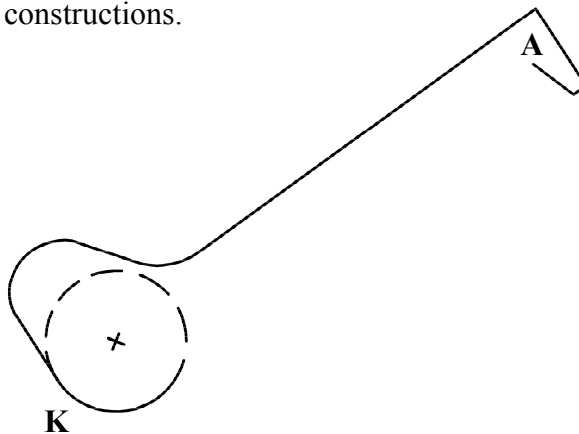


A = _____



B = _____

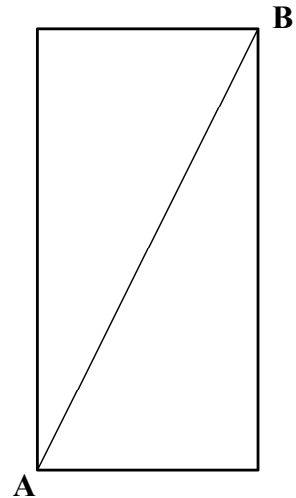
- 12.** The figure shows an incomplete logo for a hurling club.
Complete the logo by constructing a tangent from point **A** to circle **K**.
Show all constructions.



13.

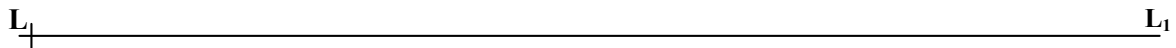
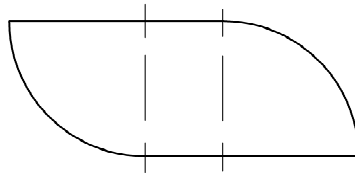
The rectangular sheet shown is to be folded flat along its diagonal **AB**.

Draw the sheet in its folded position.



14.

Starting at point **L**, show the perimeter of the given figure along the line **LL₁**.



15.

The rectangle **B** represents a battery meter on a mobile phone.

The sketch shown at **A** indicates that the phone is fully charged.

Divide the meter shown at **B** to indicate when the phone is 80% charged.

Shade **or** colour the completed diagram.

