Coimisiún na Scrúduithe Stáit
State Examinations Commission

Junior Certificate Examination, 2019

Technical Graphics
Ordinary Level
Section A

(120 marks)

Monday, 17 June
Morning 9:30 - 12:00

Centre Number

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.*

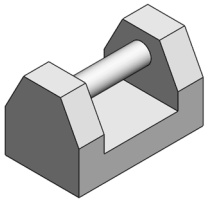
Examination Number:

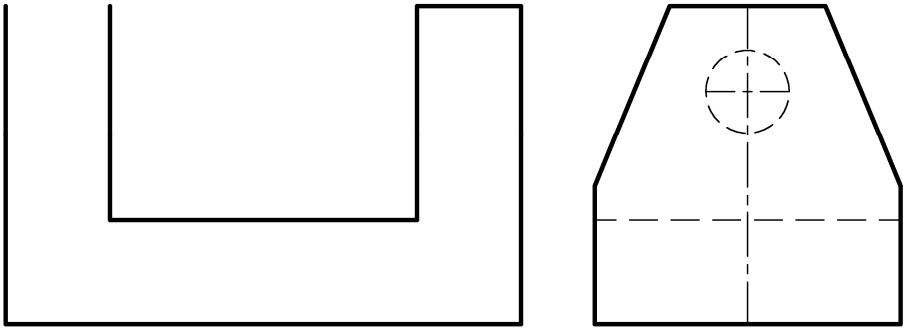
Question	Mark
Section A	
1	
2	
3	
4	
5	
6	
TOTAL	
GRADE	

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

1. Shown is an **incomplete** elevation and end view of a block weight. Also shown is a 3D graphic of the block weight.

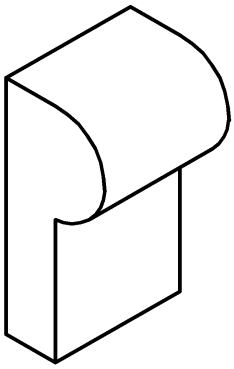
Insert the missing lines in the elevation.





2. In the space provided, make a **freehand pictorial sketch** of the rugby tackle bag shown below.

Colour **or** shade the completed sketch.



3. List **one** advantage and **one** disadvantage of using a laptop computer.

Advantage:

_____

_____

Disadvantage:

_____

_____

4. **Fig. 1** shows a logo for a make-up counter inscribed in the square **ABCD**.

Complete the enlarged logo in the given square **ABCD** in **Fig. 2**.

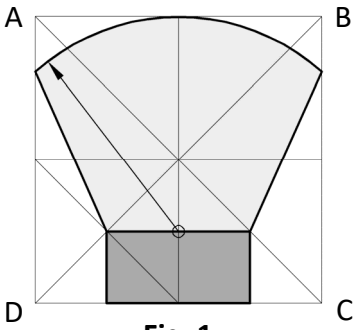


Fig. 1

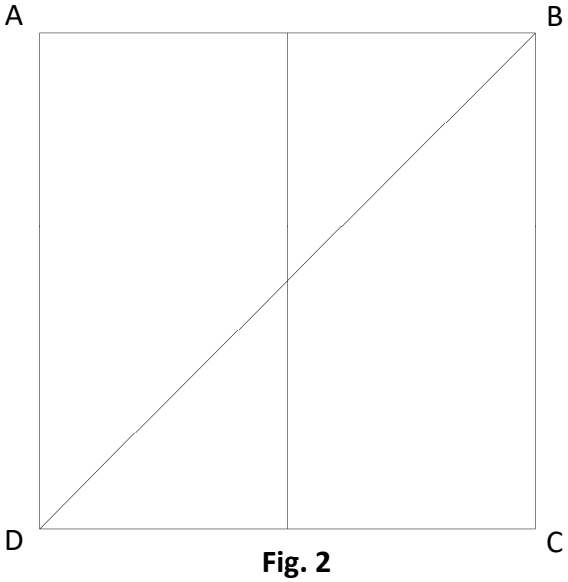


Fig. 2

5. **Fig. 1** shows the outline of a comb, based on an ellipse.

The line **PT** is a tangent to the ellipse at **P**. Locate the focal points in **Fig. 2** and complete the comb by drawing the tangent **PT**.

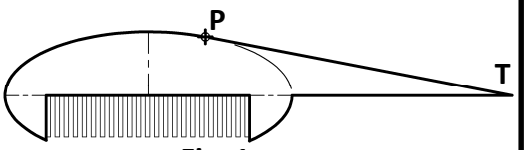


Fig. 1

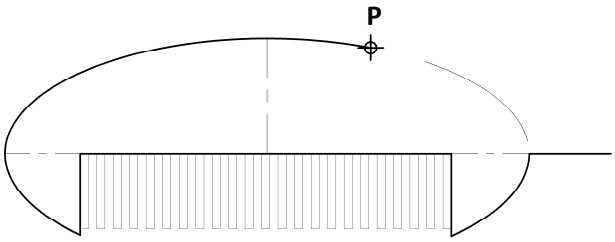
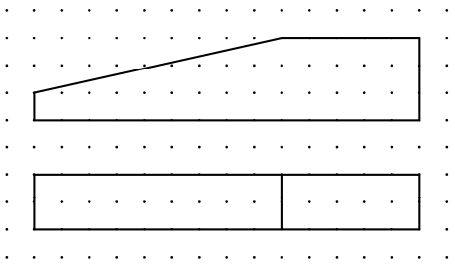


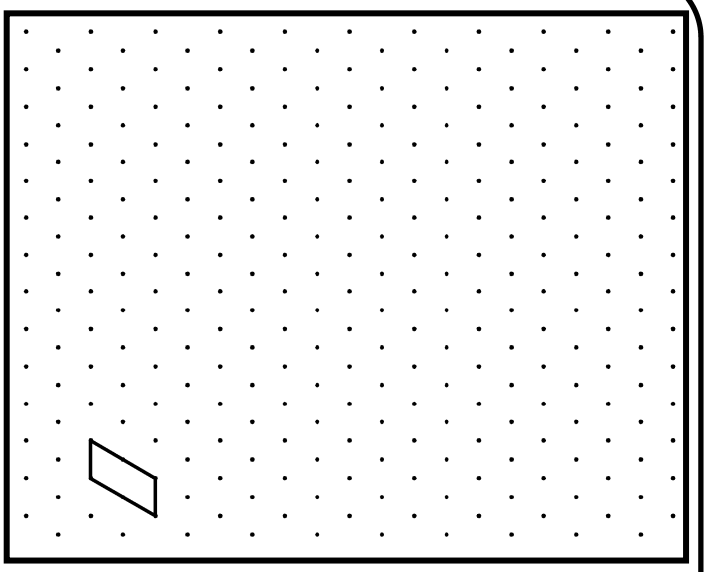
Fig. 2

6. The elevation and plan of a door wedge are shown.

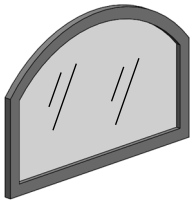
Make a well-proportioned **freehand sketch** of the wedge in the space provided.

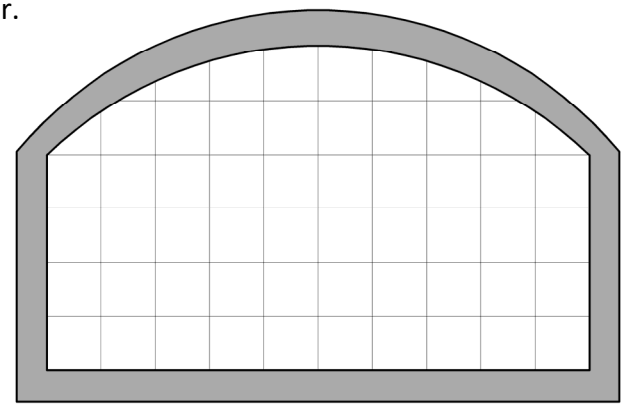
Colour **or** shade the completed sketch.





7. The outline of a hall mirror is shown.
Also shown is a 3D graphic of the mirror.





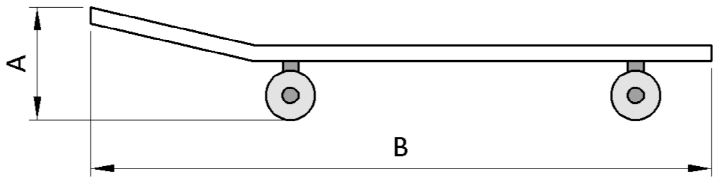
Write down the area of the glass in square units.

1 square = 1 square unit.

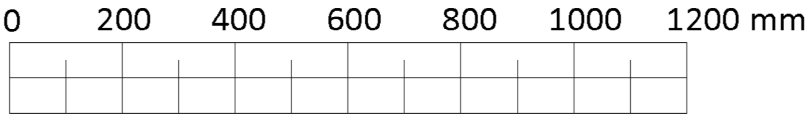
Area of the glass = _____ square units.

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

A: _____



B: _____



9. **Fig. 1** shows a set of blocks.

Choose the correct elevation for **Fig. 1** from the options shown in **Fig. 2** below.

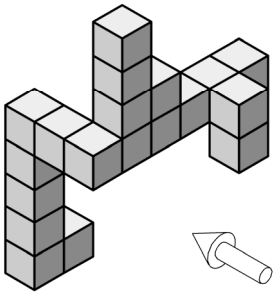


Fig. 1

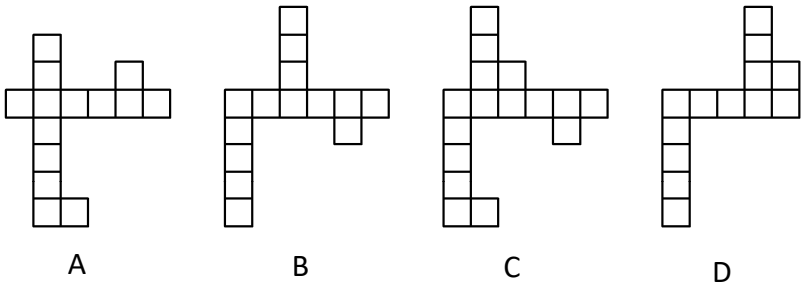


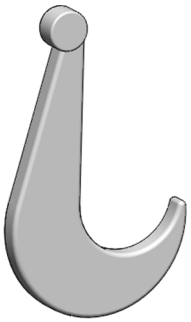
Fig. 2

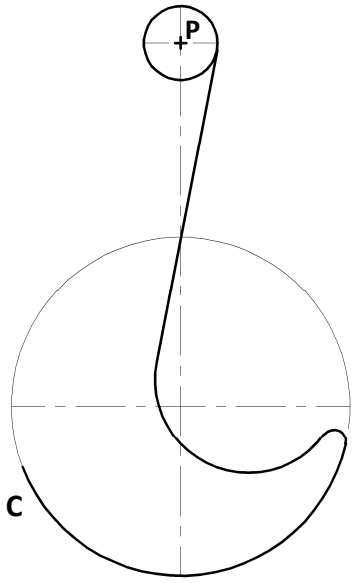
Answer:_____

10. The figure on the right shows the incomplete outline of a hook.
Also shown is a 3D graphic of the hook.

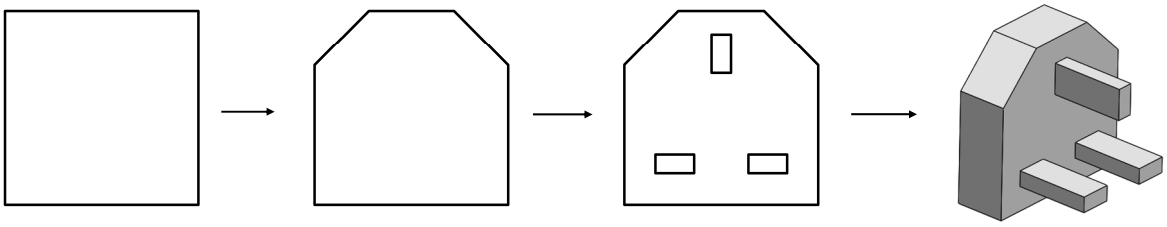
Complete the drawing of the hook by constructing a tangent from the centre-point **P** to the circle **C**.

Show all construction and the point of contact for this tangent.





11. Write down **any two** CAD commands used to create the drawing of the plug.



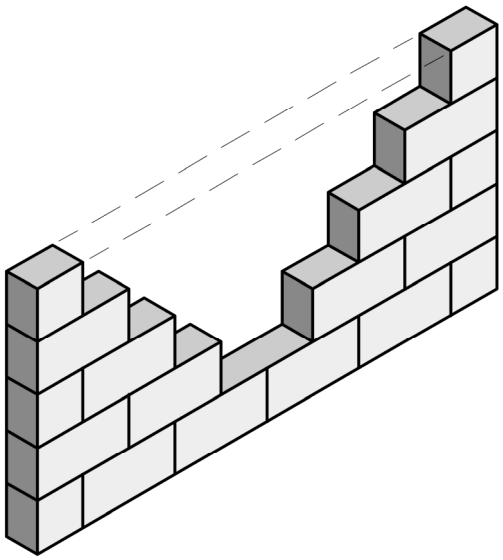
Any **two** CAD commands: _____

_____

12. The figure shows an incomplete block wall construction.

Write down the number of blocks required to complete the wall, as shown by the broken lines.

It will require _____ blocks to complete the wall construction.



13. **Fig. 1** shows the design for a glamping logo.
The design is constructed using **50°** and **65°** angles.

Fig. 2 shows an **incomplete** drawing of the logo. Complete the logo by drawing a line at **50°** at point **A** and at **65°** at point **B**.

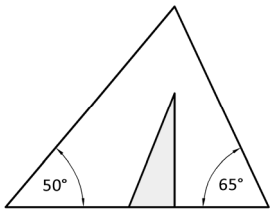


Fig. 1

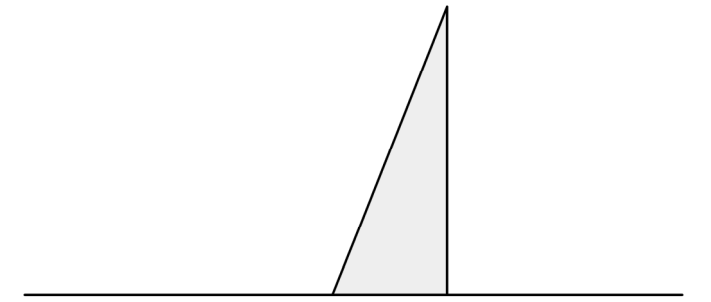
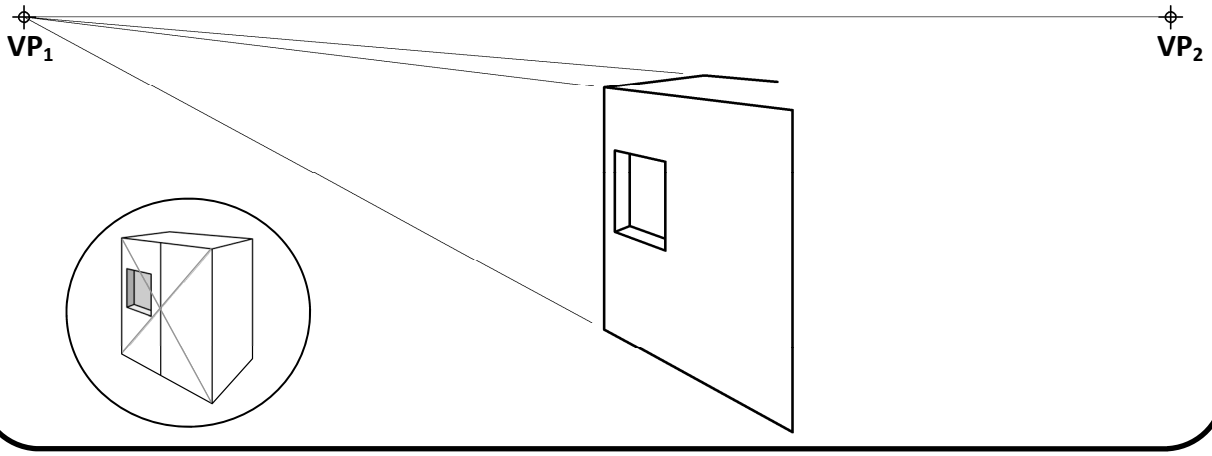


Fig. 2

14. The figure shows an **incomplete** two point perspective drawing of a kitchen fridge.
A small 3D graphic of the fridge is also shown.

Complete the perspective drawing of the fridge.



15. **Fig. 1** shows an outline drawing of a xylophone.

Complete the drawing of the xylophone in **Fig. 2** showing **all** construction.

Colour **or** shade the completed drawing.

Fig. 1

Fig. 2

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