

AN ROINN OIDEACHAIS
LEAVING CERTIFICATE EXAMINATION, 1972
TECHNICAL DRAWING - COMMON LEVEL - PAPER II
WEDNESDAY, 21st JUNE - MORNING, 9.30 to 12
N.B. Answer either Section A or Section B

Section A (Engineering)

INSTRUCTIONS

- (a) All questions to be attempted.
- (b) Drawings and sketches should be in pencil.
- (c) Where dimensions are omitted they may be estimated.
- (d) Credit will be given for neat and orderly presentation of work.
- (e) Candidates must work on one side of the paper only.
- (f) The Examination Number must appear on each drawing sheet used.

NOTE: Two sets of drawings have been provided for Question 1, one dimensioned in inches and the other in millimetres. Candidates are free to work from either set of drawings. Candidates must indicate the units used.

1. Two views of a hanger casing are shown in Fig. 1. Draw full size the given elevation 'F' and project a plan view. Insert four leading dimensions and state the type of projection used in the solution.

(100 marks)

2. An exploded view of a bell crank assembly is shown in Fig. 2. Assemble the parts together and sketch freehand (on plain drawing paper):-

- (i) an elevation looking in the direction of the arrow 'A'; and
- (ii) a sectional end elevation looking in the direction of the arrow 'B' (the cutting plane of the section should pass through the axis of the pin).

INSTRUCTIONS

- (a) Answer four questions.
- (b) All questions carry equal marks.
- (c) Construction lines must be shown on all solutions.
- (d) Write the number of the question distinctly on the answer paper.
- (e) Candidates working in metric units should write the letter "M" distinctly beside the number of the question on the answer paper.

All dimensions on the question paper are in millimetres with inches in parenthesis.

1. Fig. 1. shows the plan and incomplete elevation of a turret roof. Draw the plan, complete the elevation and develop the surface marked A.

Use a scale of 1 : 50 ($\frac{1}{4}$ in. to 1 ft.).

2. A pair of intersecting triangular prisms are used as a display stand. The axes of the prisms are perpendicular to each other and a plan and elevation are shown in Fig. 2. Draw the assembled solids in isometric projection.

Scale 1 : 10 (1 in. to 1 ft.).

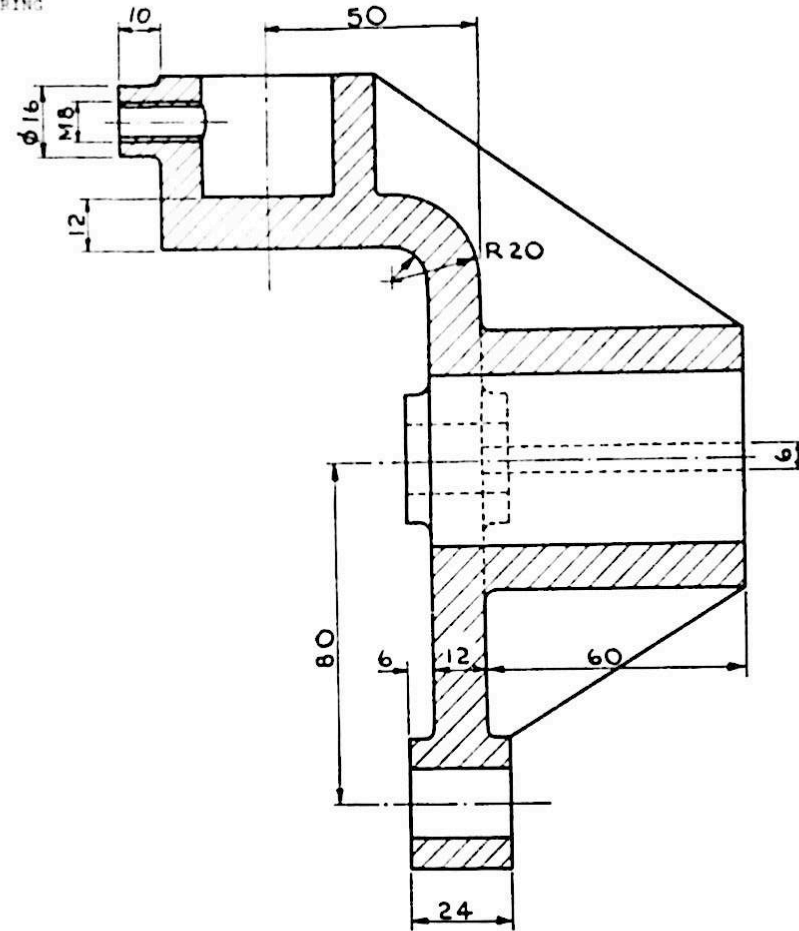
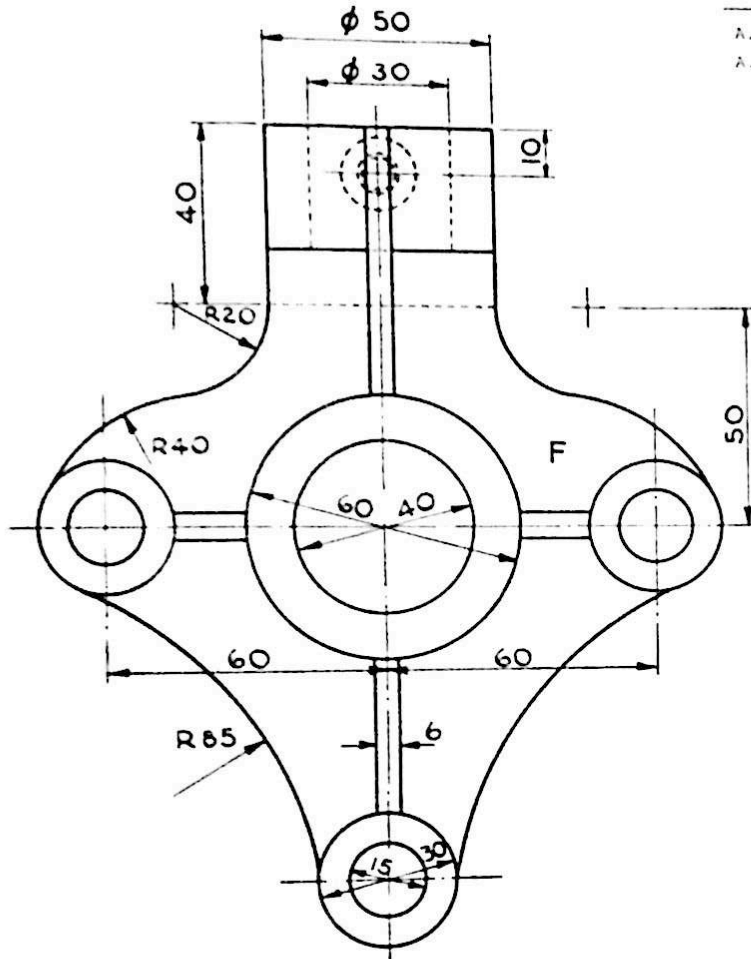
3. Fig. 3. shows the plan and elevation of part of a wall with an opening. To a scale of 1 : 100 ($\frac{1}{8}$ in. to 1 ft.), copy the plan and make a perspective drawing of the wall when the picture plane and the spectator (station point) are in the given positions. The height of the spectator (horizon line) is 2000 mm above ground level.

4. The elevation of a parabolic roof rib, which is made up of 5 pieces, is shown in Fig. 4. The joint lines are normal to the curve. To a scale of 1 : 100 ($\frac{1}{8}$ in. to 1 ft.), draw the elevation of the roof rib.

5. Fig. 5 shows part of the tracery panel for a stained glass window. To a scale of 1 : 10 (1 in. to 1 ft.) draw this pattern, showing clearly the method of finding the centres for the circular arcs.

6. Fig. 6. shows the plan of a hipped lean-to roof which has a pitch of 35°. To a scale of 1 : 50 ($\frac{1}{4}$ in. to 1 ft.), draw the plan and elevation of this roof. Find the true shape of the surface marked A and also find the dihedral angle between the surfaces B and C.

7. In Fig. 7 is shown the incomplete elevation of a moulded segmental arch and also the true shape of the moulding of the vertical part A. The elevation of the mitre between A and B is a straight line. Find the true shape of the moulding of the segmental part B and also the true shape of the mitre between A and B. Scale 1 : 10 (1 in to 1 ft.).

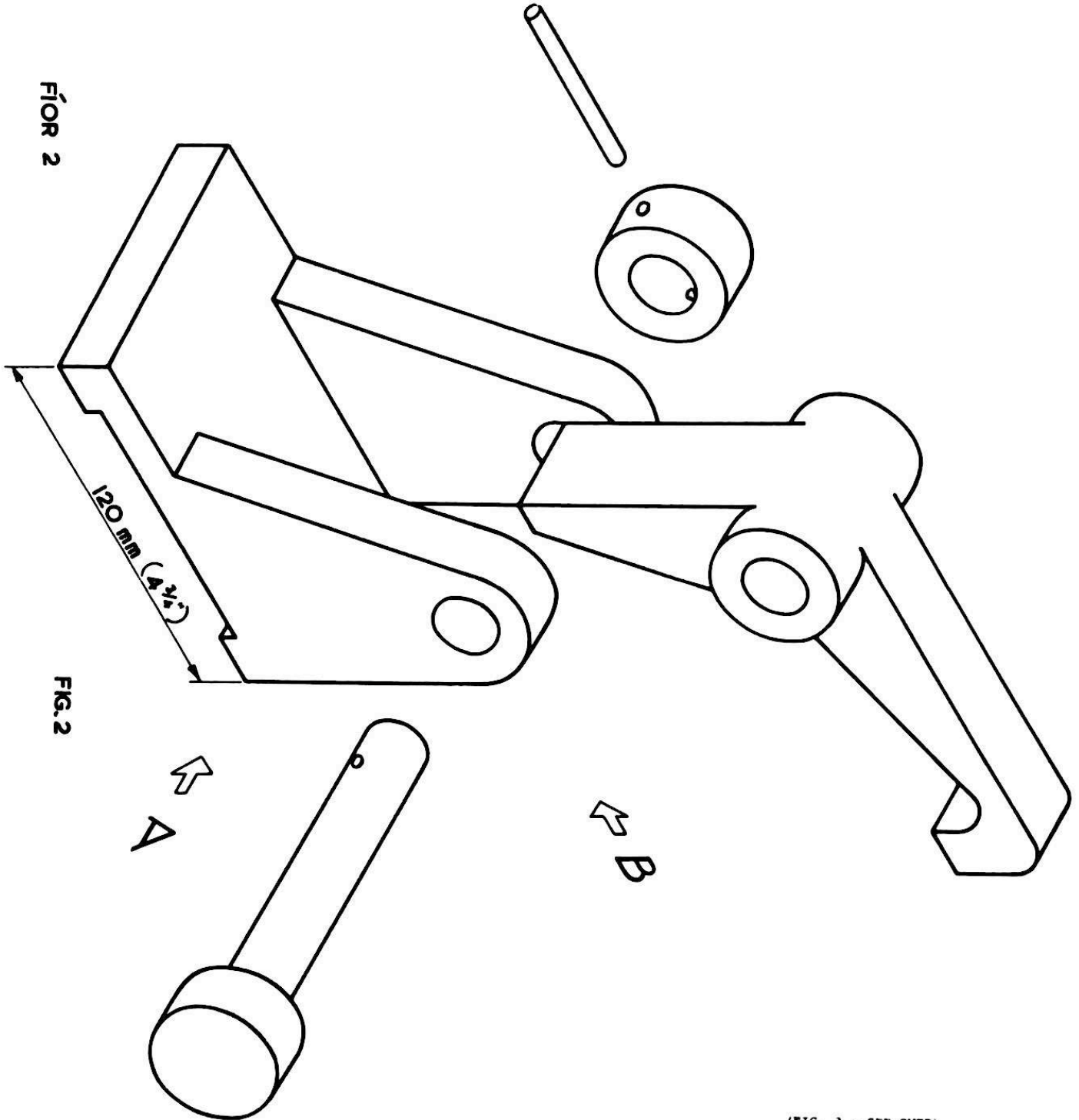


<p>FÍOR I</p>	<p>NA TOISÍ GO LEIR IN MILLIMÉADAIR.</p>	<p>TÁ NA TOISÍ IN ORLAÍ AR AN TAOBH EILE.</p>	
<p>FIG I</p>	<p>ALL DIMENSIONS ARE IN MILLIMETRES.</p>	<p>DIMENSIONS IN INCHES ON THE REVERSE SIDE.</p>	

LÍNÍOCHT TEICNIÚIL

M 118 (L 2)

CUID II (A) INNEALTÓIREACHT
PART II (A) ENGINEERING

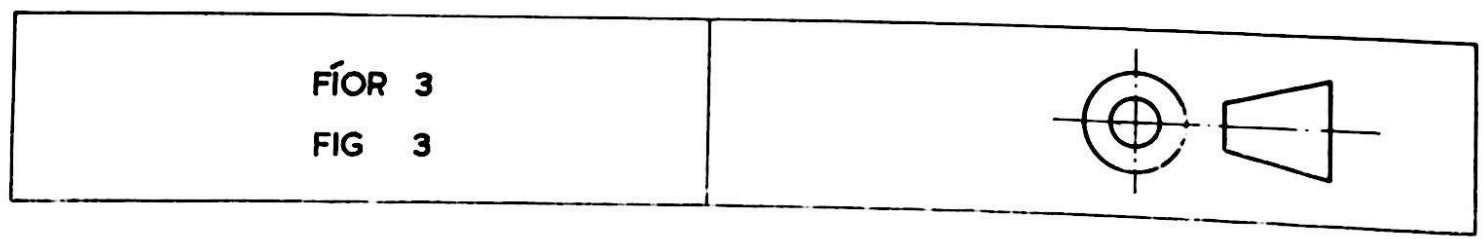
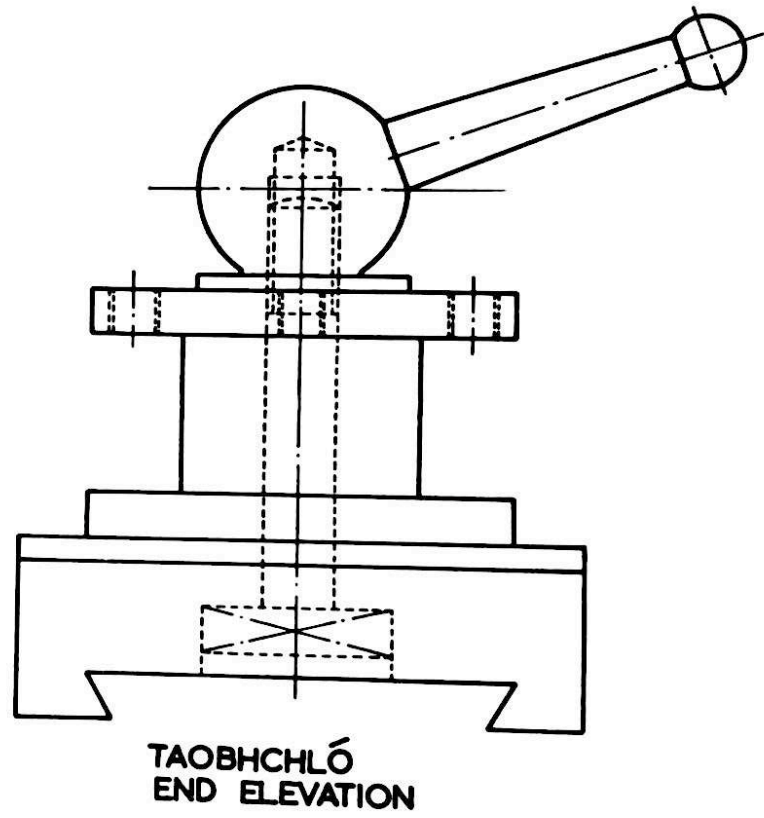
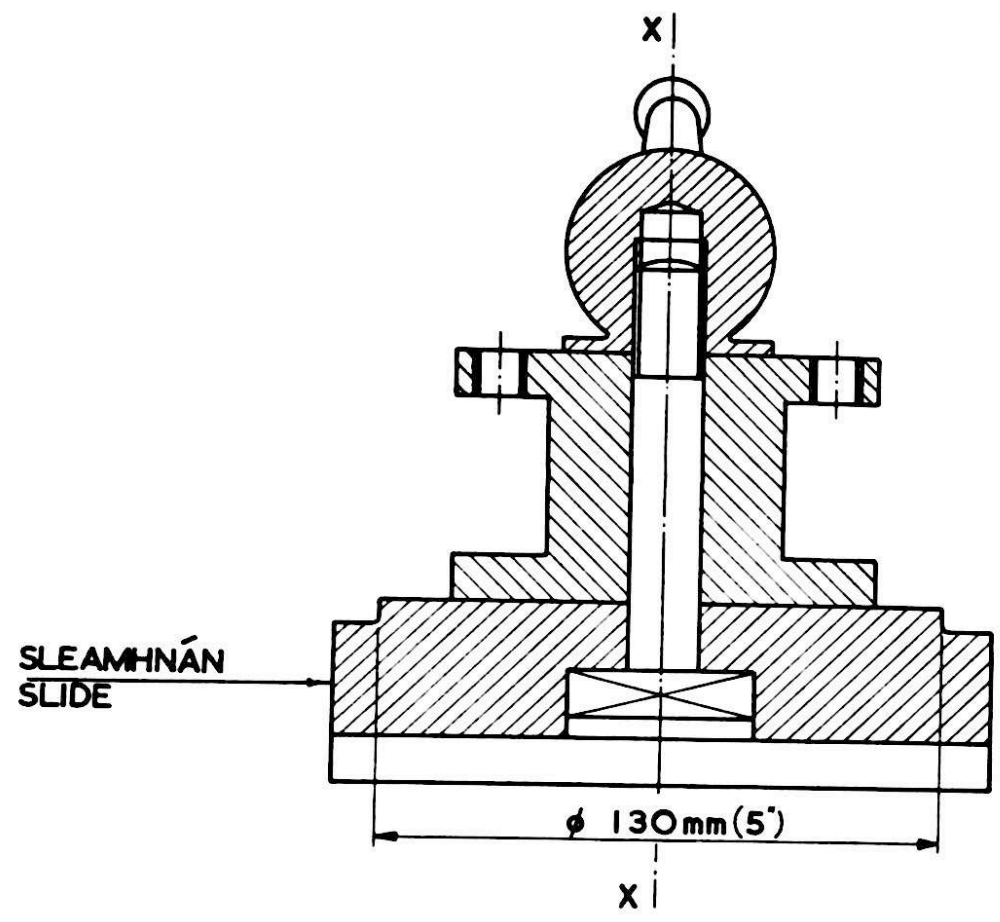


FÍOR 2

FIG. 2

(FIG. 3 - SEE OVER)
(FÍOR 3 - FÉACH THALL)

LÍNÍOCHT TEICNIÚIL
CUID II (A) INNEALTÓIREACHT
PART II (A) ENGINEERING

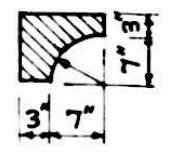
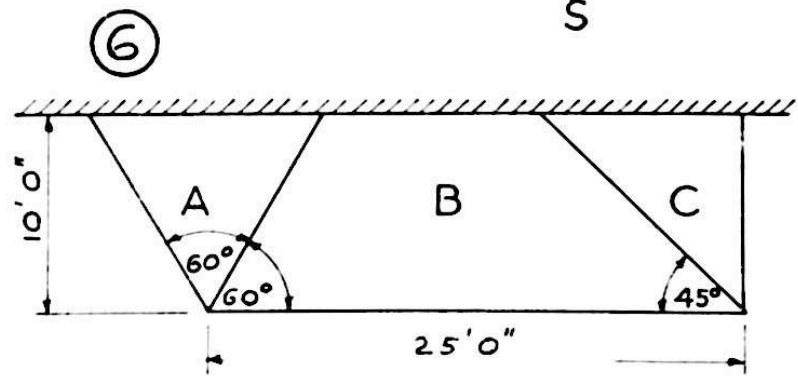
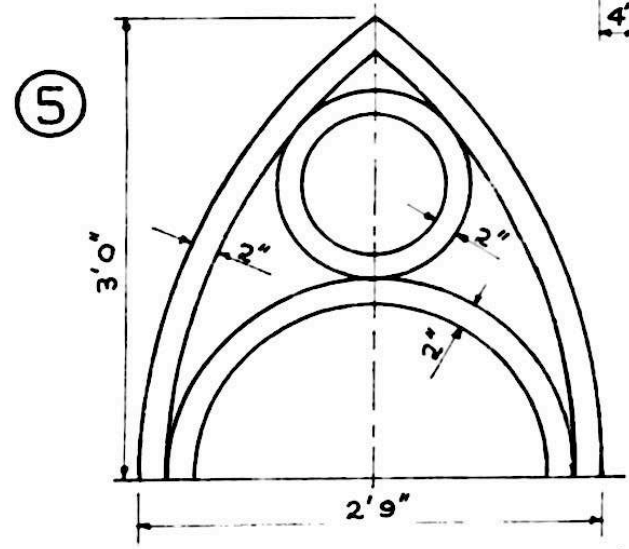
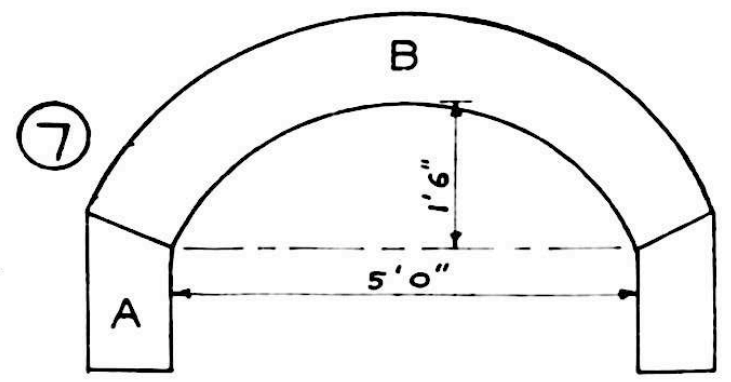
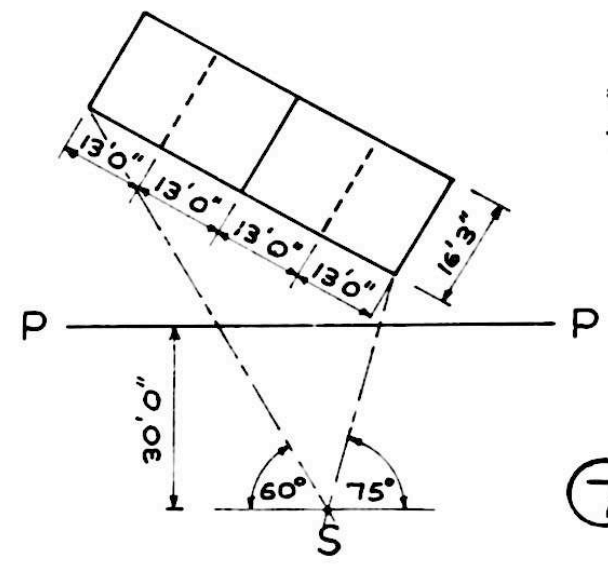
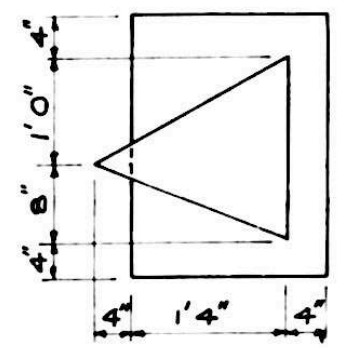
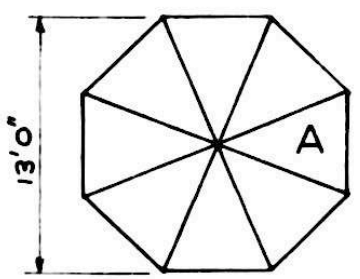
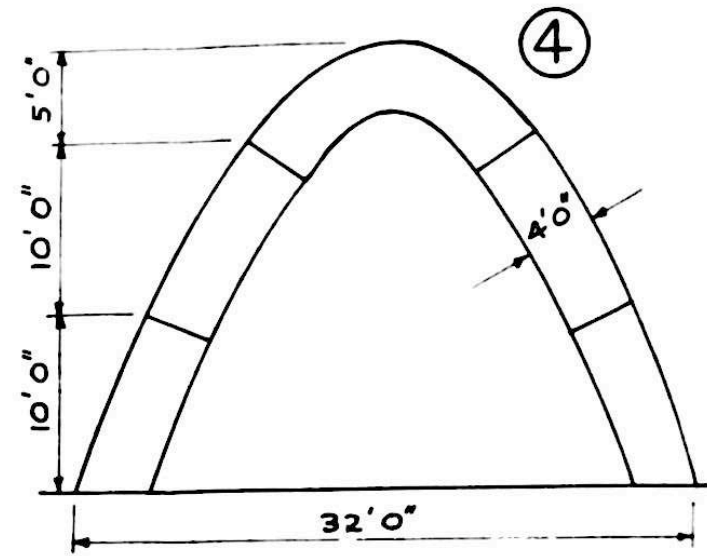
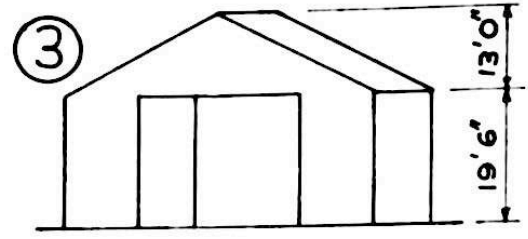
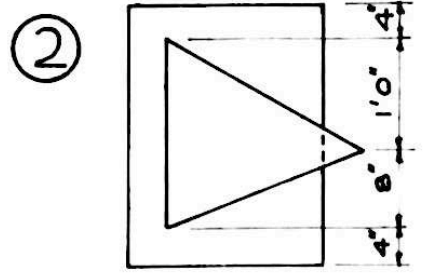
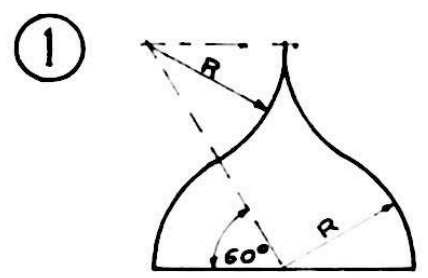


An Roinn Oideachais

LÍNÍOCHT TEICNIÚIL

Cuid II (b)
Part II (b)

Foirgníocht
Building



Na toisí go léir i dtroighí agus orlaí
All dimensions are in feet and inches

Tá na toisí i milliméadair ar an taobh eile
Dimensions in millimetres on the reverse side