

AN ROINN OIDEACHAIS.

AN BRAINSE GAIRM-OIDEACHAIS.

CERTIFICATE EXAMINATIONS

for

DAY VOCATIONAL COURSES, 1958.

MECHANICAL DRAWING.

Friday, 20th June—10 a.m. to 12.30 p.m.

INSTRUCTIONS.

1. Either 1A or 1B of the first question in Section A is compulsory.

If 1B is selected, the sketching must be done on the squared paper provided.

2. Not more than four questions may be attempted, two of these must be selected from Section A and two selected from Section B. All attempted questions except 1B may be drawn on one sheet of paper.

3. The number of the question must be distinctly marked by the side of each answer.

4. Work on one side of the paper only.

5. A maximum of 5 marks will be awarded for accuracy and neatness of arrangement in respect of each question.

6. Examination number must be distinctly marked on each sheet of paper used.

SECTION A.

1A. The drawing represents a "Woodwork Joint." Make a dimensioned drawing, giving front elevation (looking in direction of arrow A), end elevation (looking in direction of arrow B), and plan of assembled joint. Drawing should be full size, and all essential dimensions shown.

[25 marks.]

1B. The figure represents a "Metalwork Exercise." Make a freehand workshop sketch of the object in good proportion, showing front elevation (looking in direction of arrow A), end elevation, and plan. All dimensions for making the Exercise must be shown. The use of instruments is not allowed. The sketch must be done on the squared paper supplied.

[25 marks.]

[P.T.O.]

2. The plan and elevation of a cylinder that has been cut by a vertical plane C.D., and by a plane A.B. at 30° to the horizontal are given. Draw the given views and project a side elevation (looking in the direction of arrow C).

[25 marks.]

3. The elevation, plan and side elevation of a sheet metal container are shown in fig. 3. Draw the development of this container.

[25 marks.]

4. The elevation, plan and side elevation of a wedge are shown in fig. 4. Draw full size either an oblique or isometric projection of the wedge.

[25 marks.]

SECTION B.

5. Draw the outer square (full size) as shown in fig. 5. Construct the inner square so that its area is half that of the outer square. Construction must be clearly shown.

[25 marks.]

6. The figure represents a design for a wrought-iron trellis. Draw the design to a scale of 1 inch represents 1 foot. The construction necessary to obtain the centres of the curves, to be shown clearly in each case.

[25 marks.]

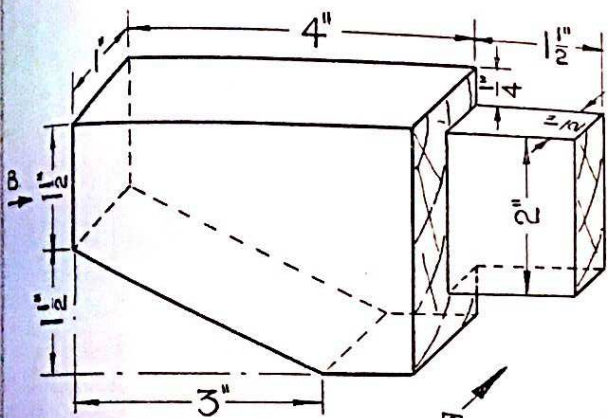
7. The diagram represents the plan of a motor cycle's wheels. The front wheel has been turned through an angle of 45° . The distance between the wheel centres is $4\frac{1}{2}$ feet. Draw the plan to a scale of 1 inch represents 1 foot. Show the new position of the bicycle when the front wheel has moved around the curve to the position "A".

[25 marks.]

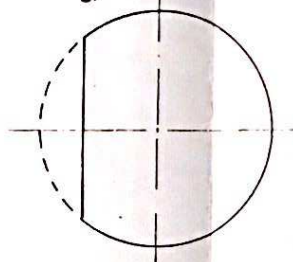
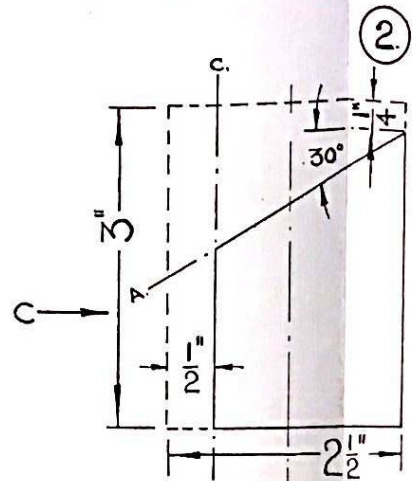
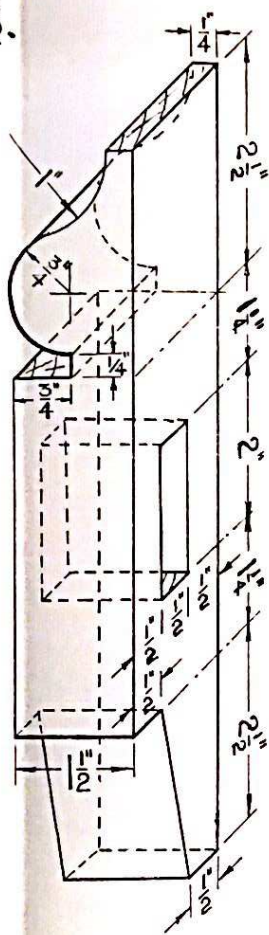
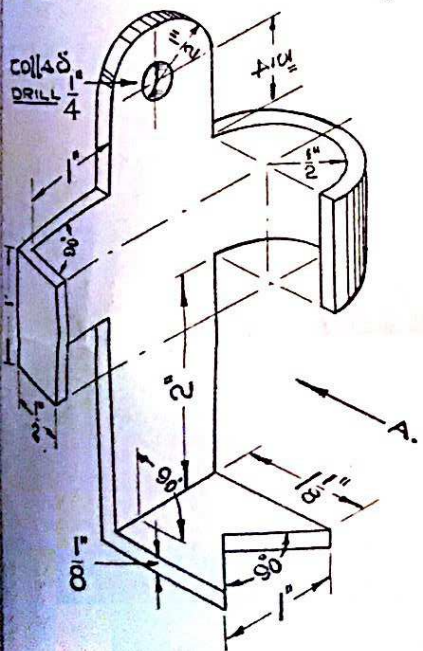
8. The diagram shows a disc of 2" radius. It rotates about the point O as indicated. Draw the disc (full size) as shown, and also its new position when having rotated 60° . Measure the height the disc has risen above the line A.B. and insert this dimension on your drawing.

[25 marks.]

1A

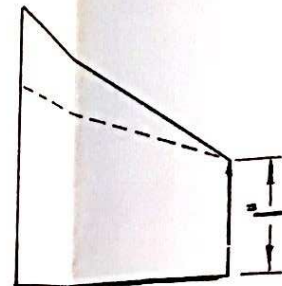
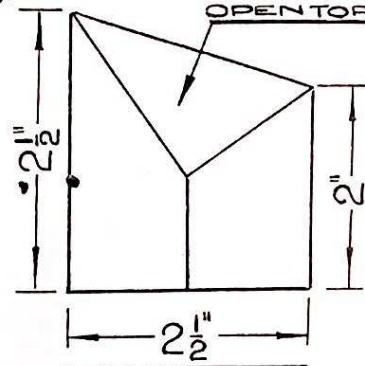


1B

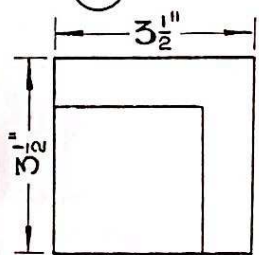


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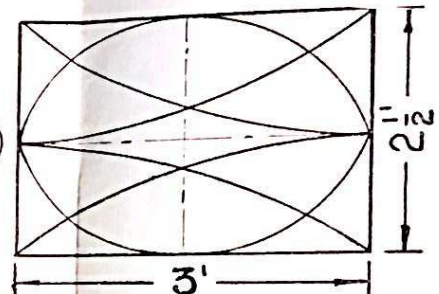
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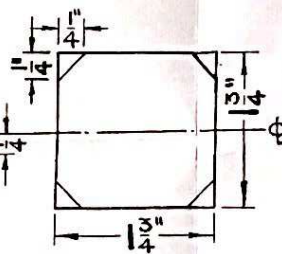
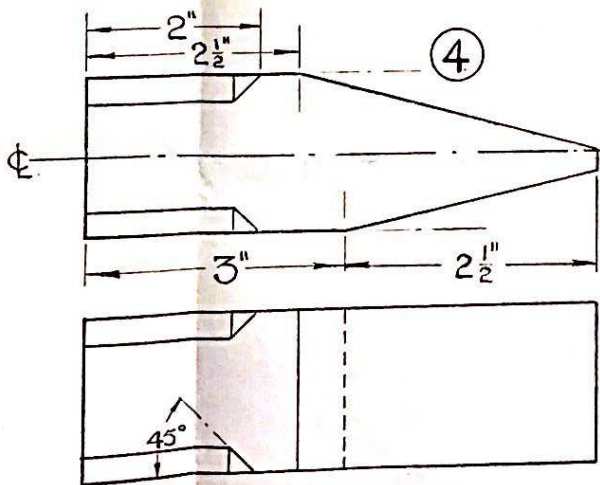
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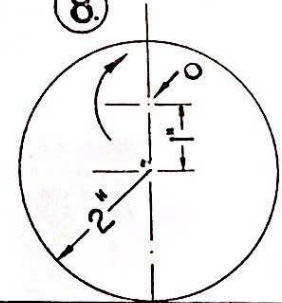
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4



8



7

