

Section A

Answer **all** questions in this section.

A1 A darts team in a school has been recently formed. **Fig. 1** shows a design of their logo.

Ellipse above A-A

Major axis 160 mm
Minor axis 110 mm

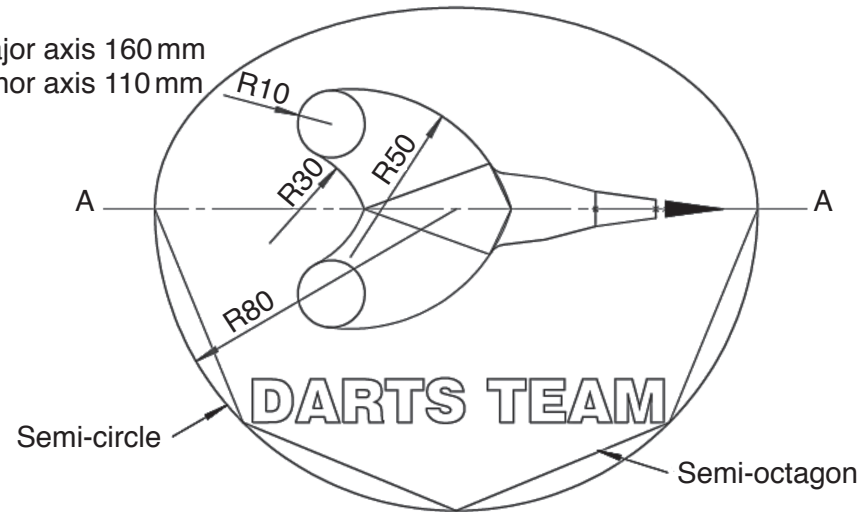
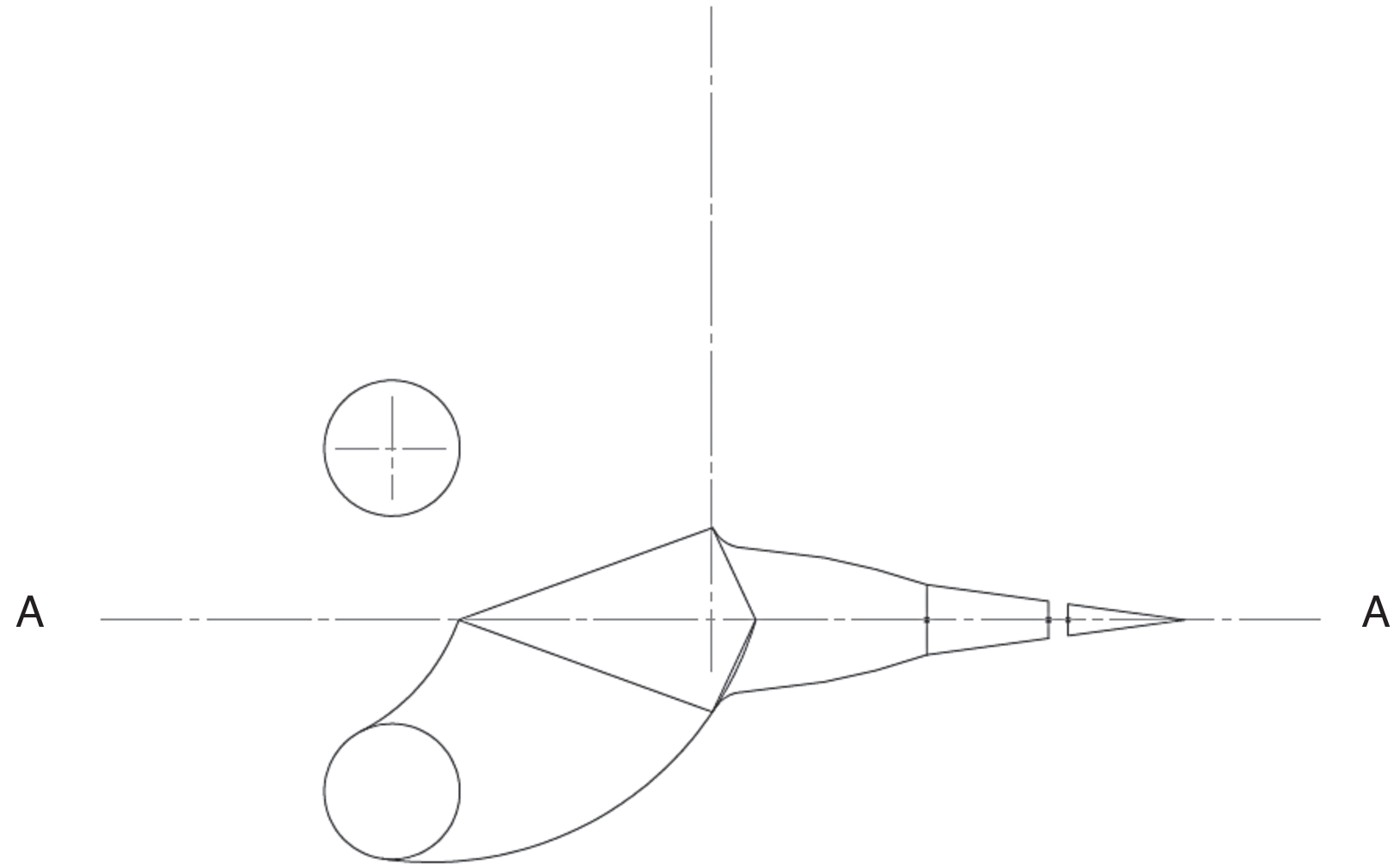


Fig. 1

Complete the full size view of the logo started on the right by:

- (a) Drawing the semi-circle R80 below A-A. [1]
- (b) Constructing the semi-octagon inscribed in the circle. [2]
- (c) Constructing the R30 and R50 arcs to be tangential to the R10 circle above A-A. [4]
- (d) Constructing the semi-ellipses above A-A. [6]



A2 Complete the words DARTS TEAM by adding the **two** missing letters. All the letters must be to the same height, spacing and style as those given. [4]

DA TS TE M

6902/02 Oct/Nov 2021 **1 hour**
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Centre Number Candidate's Number Candidate's Surname Other Names **[Turn over]**

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A3 The darts team design was turned into a shield for a monument and displayed at the school using two stands to keep it upright shown in **Fig. 2**.

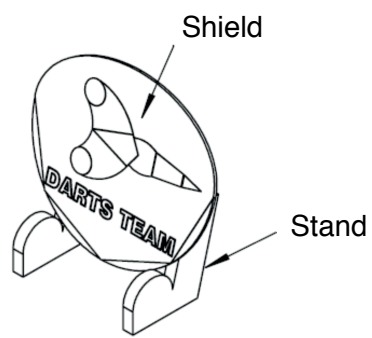
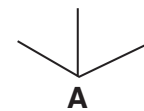
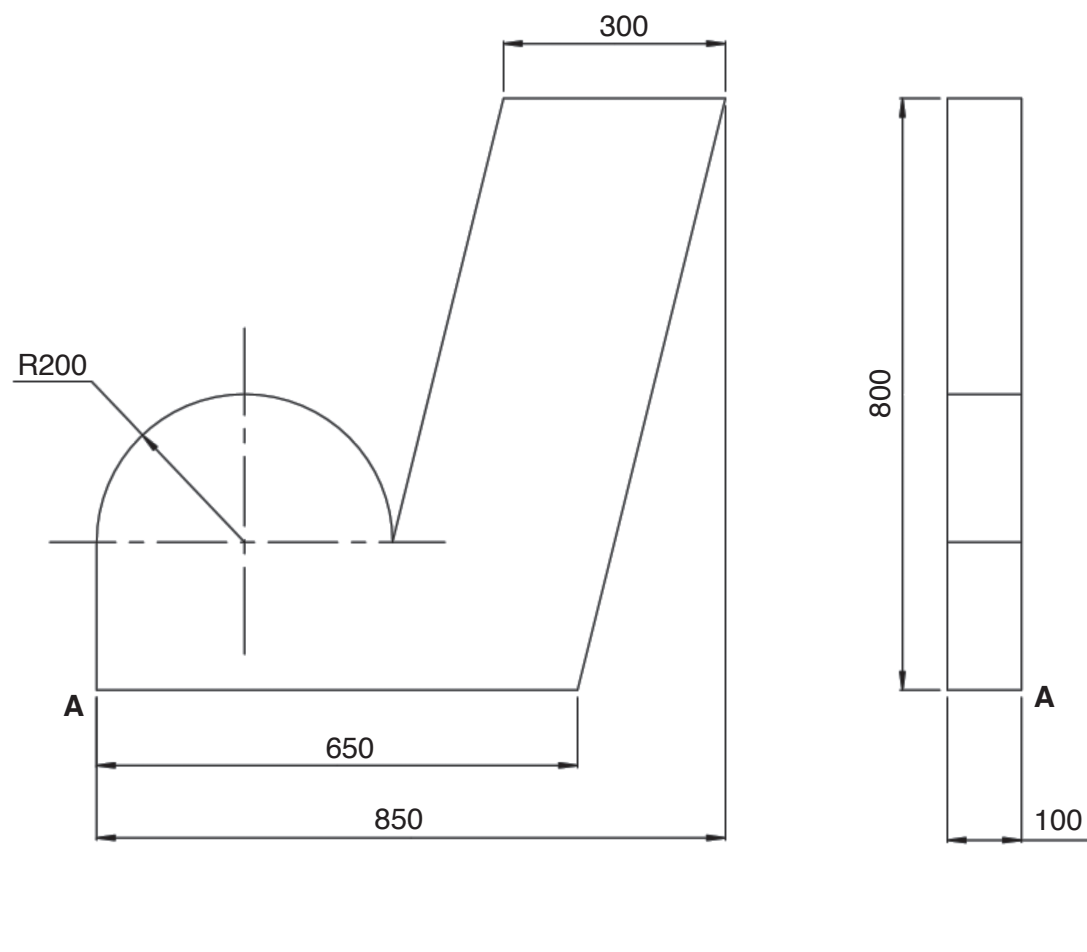
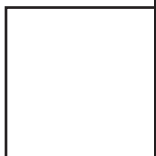


Fig. 2

Orthographic views of one of the stands is shown below.



In the space to the right draw a full size isometric view of the stand to a scale of 1:10. Use the foreground A for a start. [8]



Section B

Answer **either** question **B4** or **B5**.

B4 Fig. 3 shows a darts container made from card to be presented to winners of a tournament.

- (a) From the given orthographic views draw a full size development (net) of the body of the container. Include a circular base and a gluing tab. [19]

The starting line B-B has been drawn for you.

- (b) The darts are to be held in a vertical position. In the box given on the right sketch a design of an insert to support three darts. [6]

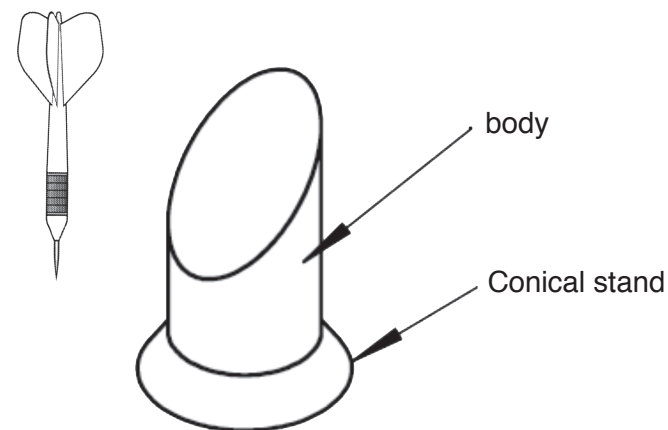
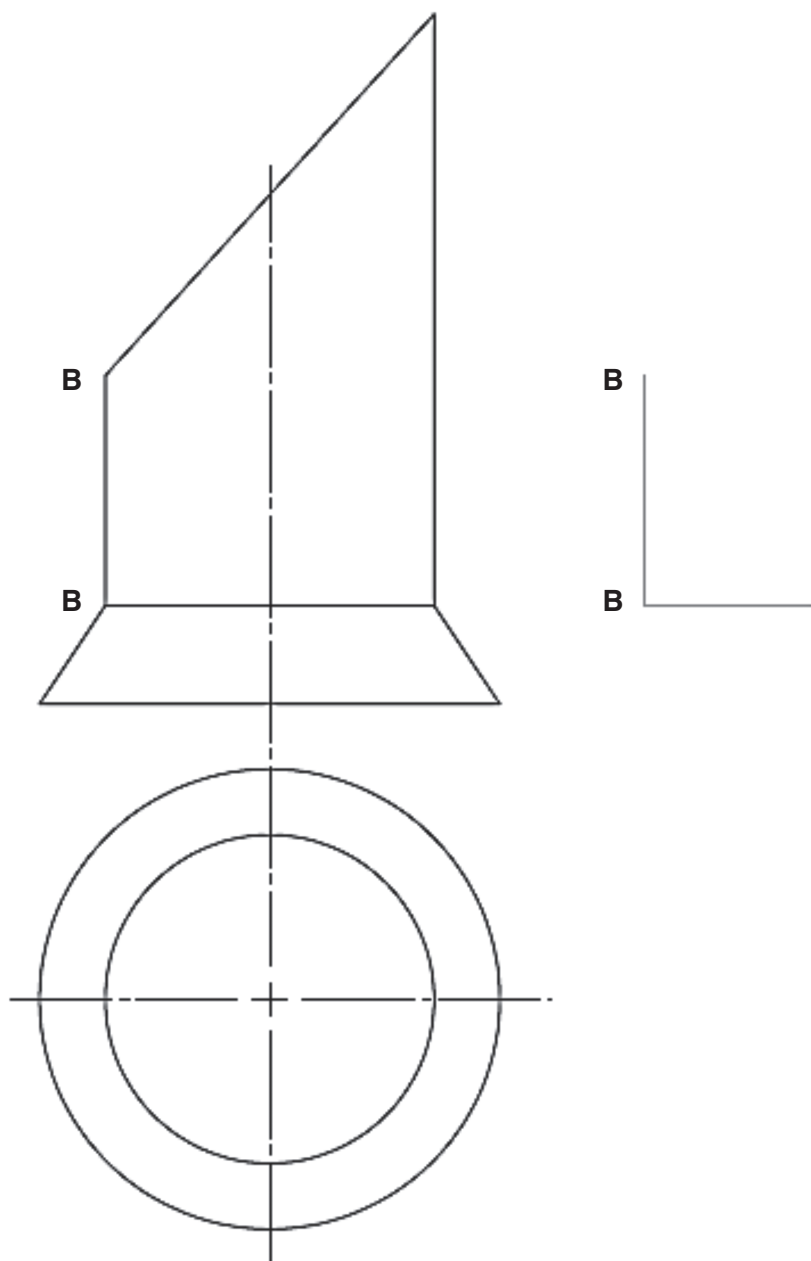


Fig. 3



Answer part (b) here.

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B5 Fig. 4 shows an isometric view of a trophy that was won by the darts team in a tournament.

Draw:

(a) A front elevation looking in the direction of FE.

Use the corner C to start the elevation. [15]

(b) An end elevation looking in the direction EE. [10]

