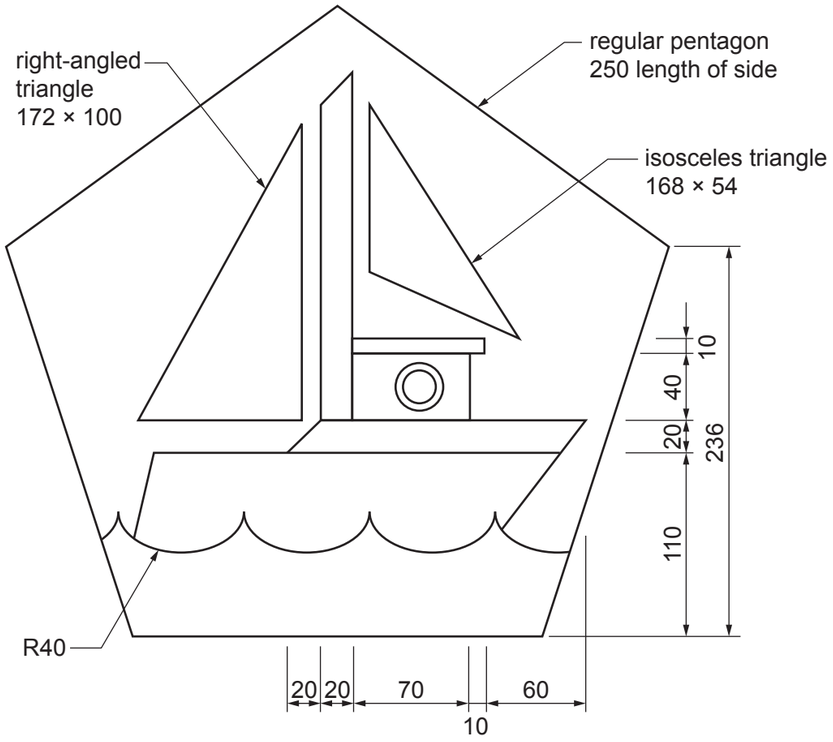
Section A

Answer **all** questions in this section.

A1 A logo for a sailing club is shown below.



Complete the drawing of the sailing club logo to a scale of 1:2 by adding:

(a) the outer pentagon [4]

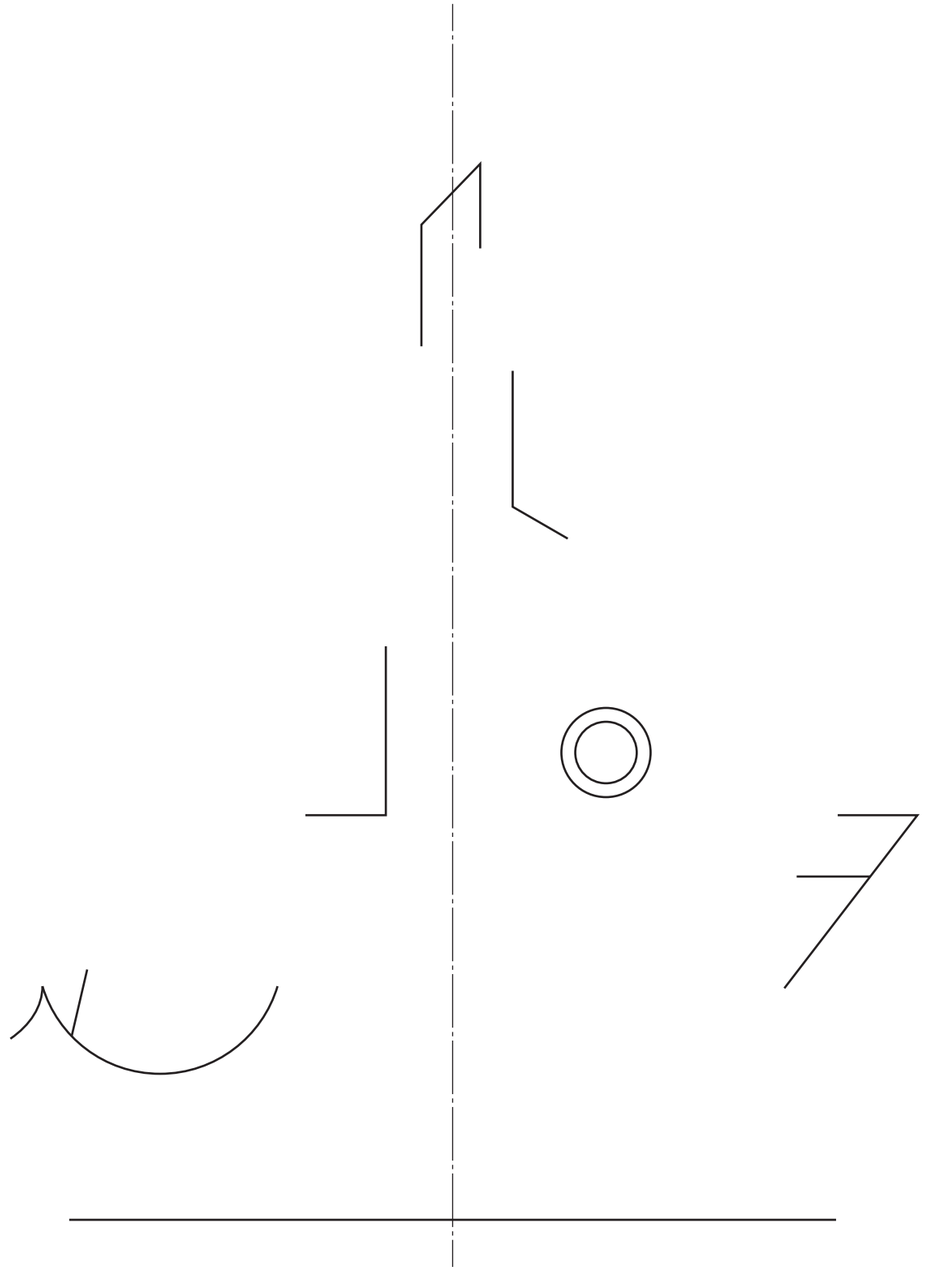
(b) the boat hull and mast [3]

(c) the boat cabin [2]

(d) the rear sail [2]

(e) the front sail [3]

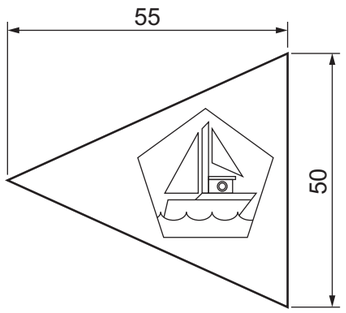
(f) the waves. [3]



For Examiner's use

A2 The sailing club requires some self-adhesive stickers with the logo on.

The sticker design is shown below.



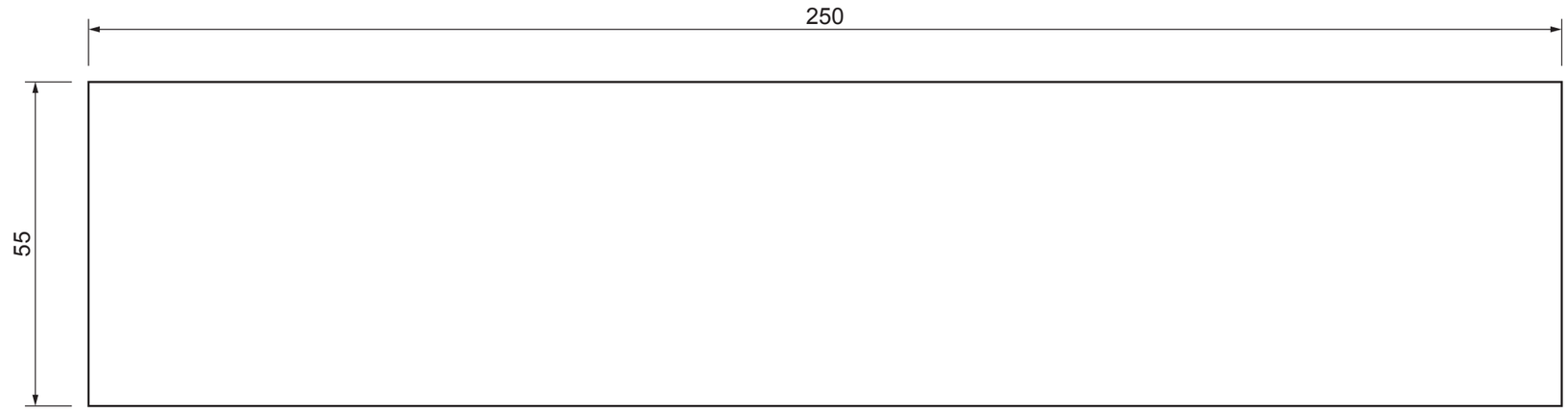
The stickers will be made from self-adhesive vinyl in quantities of 500.

(a) Name a suitable method of printing the logo design onto self-adhesive vinyl.

..... [1]

(b) The stickers will be cut from strips of self-adhesive vinyl. One of the self-adhesive vinyl strips is shown below.

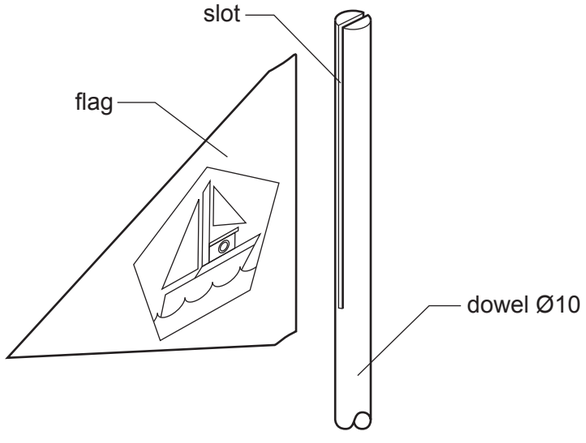
Show how the stickers would be laid out onto the self-adhesive vinyl strip to maximise the number that can be cut from the material. [2]



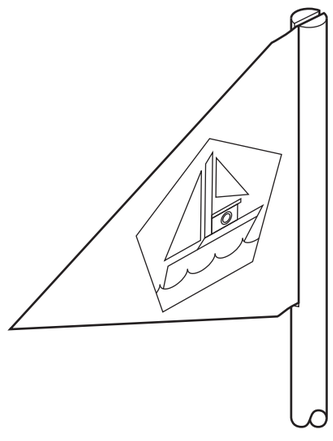
self-adhesive vinyl strip

A3 Flags will be made with the logo printed onto them.

The flags will be made from thin card and attached to Ø10mm dowel using a slot method as shown below.



flag and slotted dowel



assembled flag

(a) State **one** suitable type of adhesive to join the card flag to the wooden dowel.

..... [1]

(b) An alternative method of attaching the flags to the dowel is required.

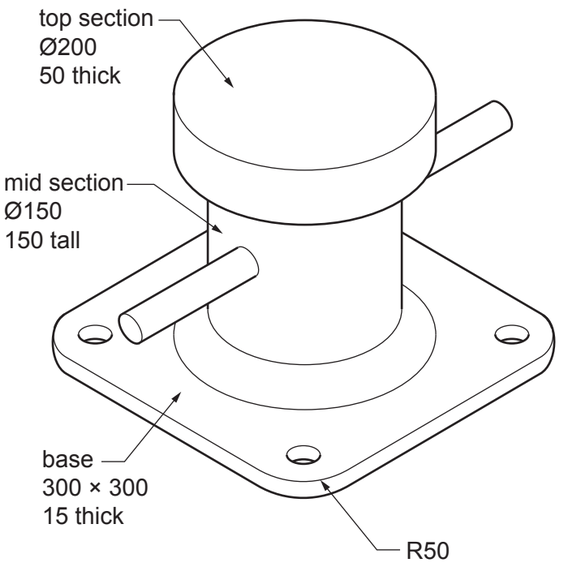
The method must allow the flags to rotate freely on the dowel without sliding off.

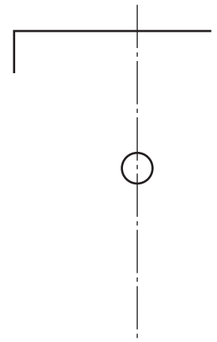
Sketch an alternative method of attaching the flags to the dowel in the space below. [4]

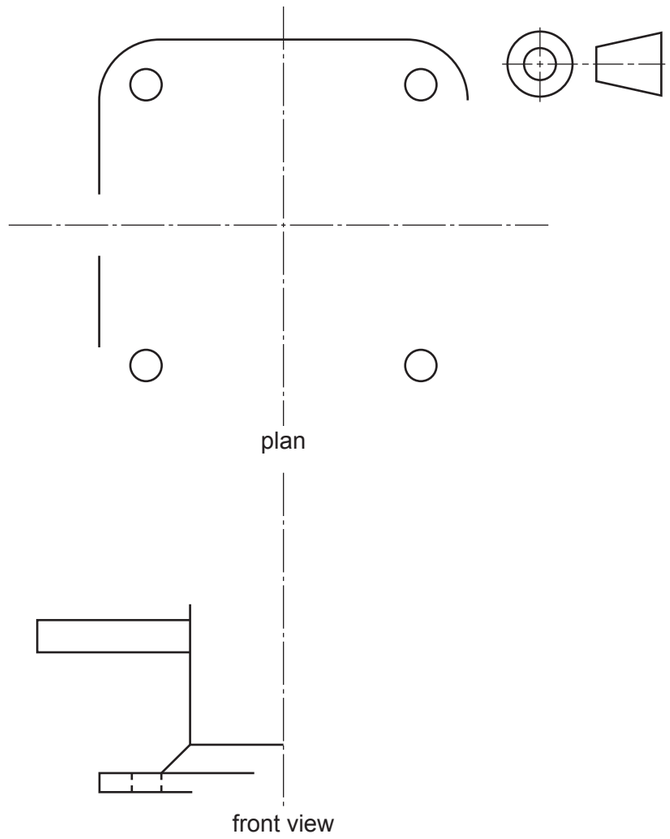
Section B

Answer **one** question, **either** Question **B4** or **B5**, from this section.

B4 A mooring cleat for sailing boats is shown below.



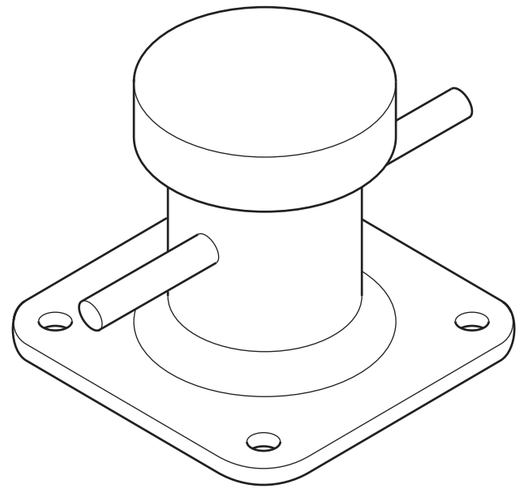

side view



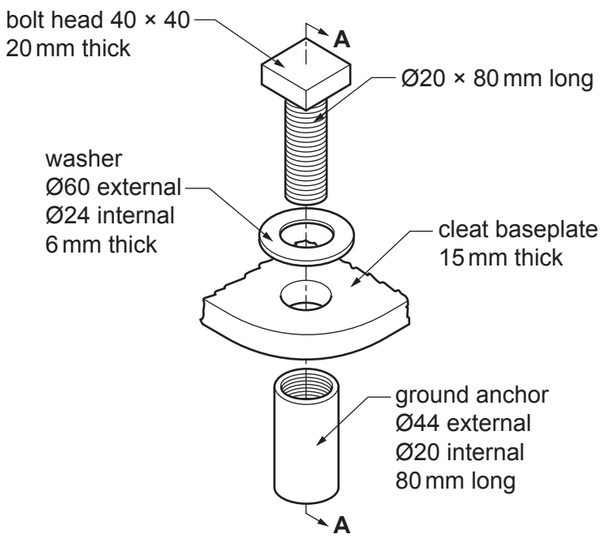
(a) Complete the orthographic views of the mooring cleat to a scale of 1:5. [15]

(b) The mooring cleat is made from stainless steel.

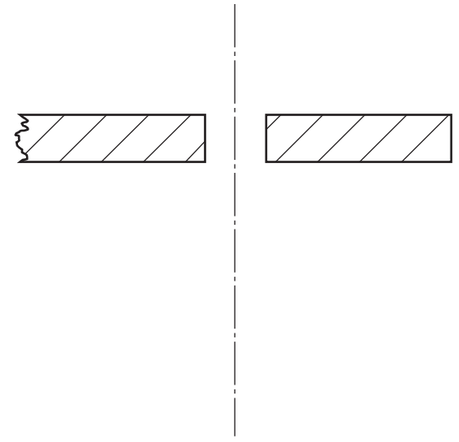
Render the mooring cleat below to look like stainless steel. [4]



(c) The mooring cleat is secured to the ground using a steel bolt and ground anchor as shown below.



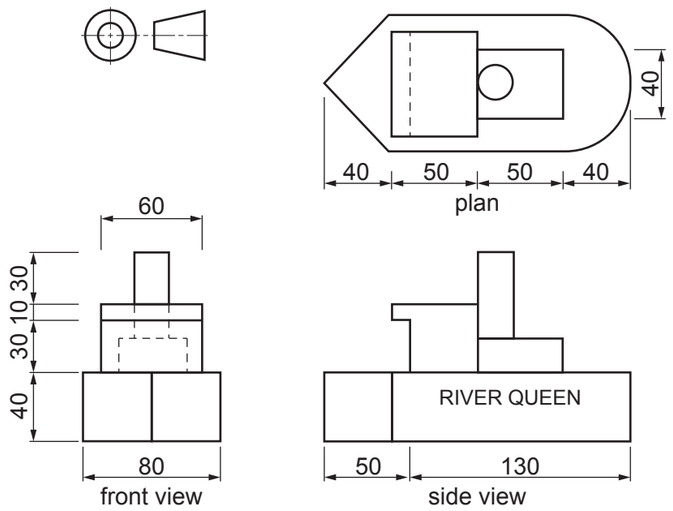
Complete the sectional view of the assembled steel bolt and ground anchor to a scale of 1:2. [6]

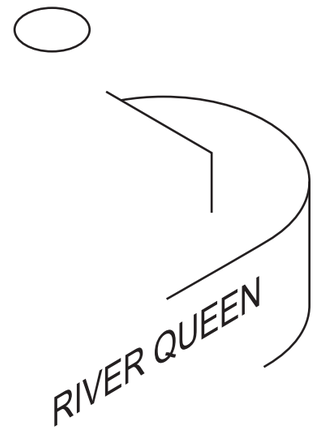

sectional view **A–A**

For Examiner's use

Centre Number ..... Candidate Number ..... Candidate Name ..... **[Turn over**

B5 Orthographic views of a toy boat are shown below.



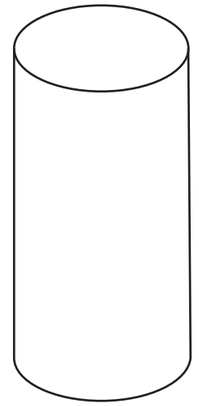


isometric view

(a) Complete the isometric view of the toy boat to a scale of 1:2. [12]

(b) The toy boat is made from blocks of softwood glued together.

The funnel of the toy boat is shown below.



Render the funnel to look like softwood. [3]

(c) The lettering on the side of the toy boat is spray painted on using a stencil.

Describe how the stencil could be produced using CAD/CAM and used to apply the lettering to the toy boat.

.....

.....

.....

.....

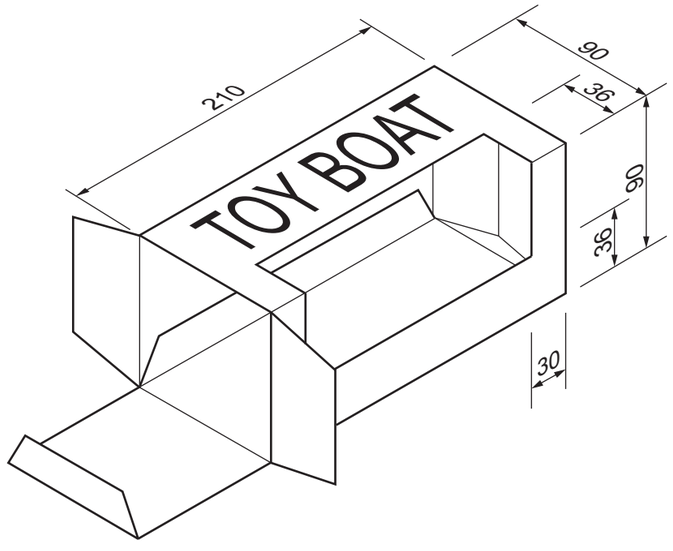
.....

.....

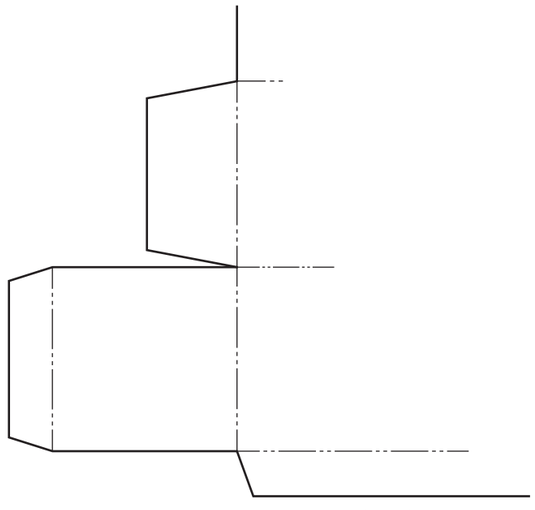
.....

..... [3]

(d) A package for the toy boat is shown below.



Complete the development (net) of the toy boat package to a scale of 1:3. [7]



development (net)