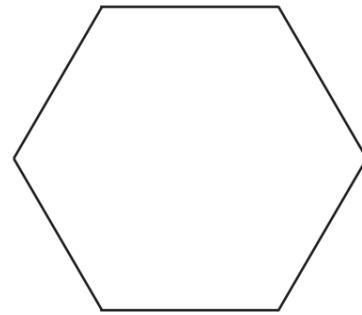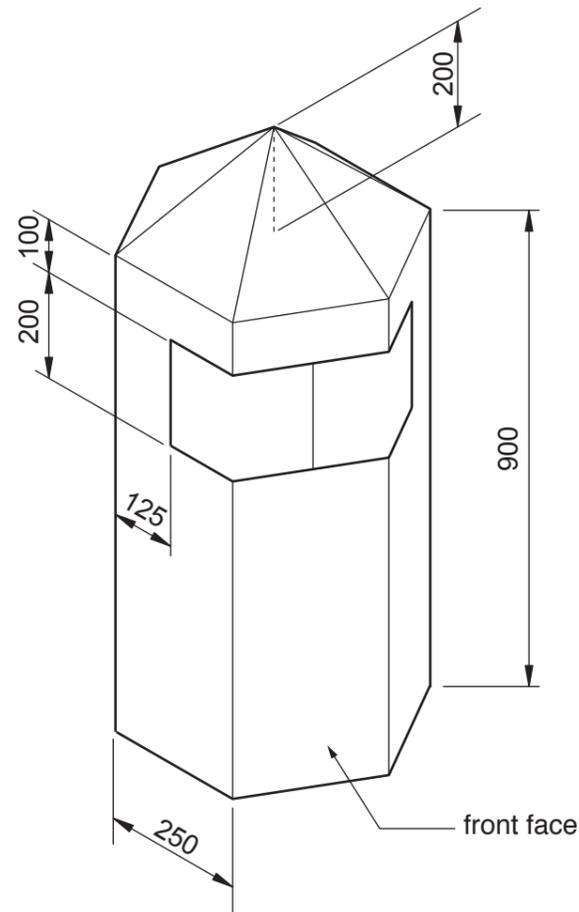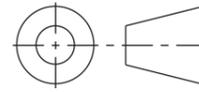**Section B**

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

B4 An isometric view of a litter bin is shown below.

200

100

200

125

900

250

front face

plan

(a) Complete the orthographic views of the litter bin to a scale of 1:10. [13]

front view

side view

(b) The litter bin has a cylindrical steel liner inside which can be removed when emptying the bin.

Complete the pictorial view of the liner below by adding the top ellipse. [7]

(c) The image to the right has been produced using Computer Aided Design (CAD).

(i) State **two** advantages of using CAD to produce the image.

1 ....

2 .... [2]

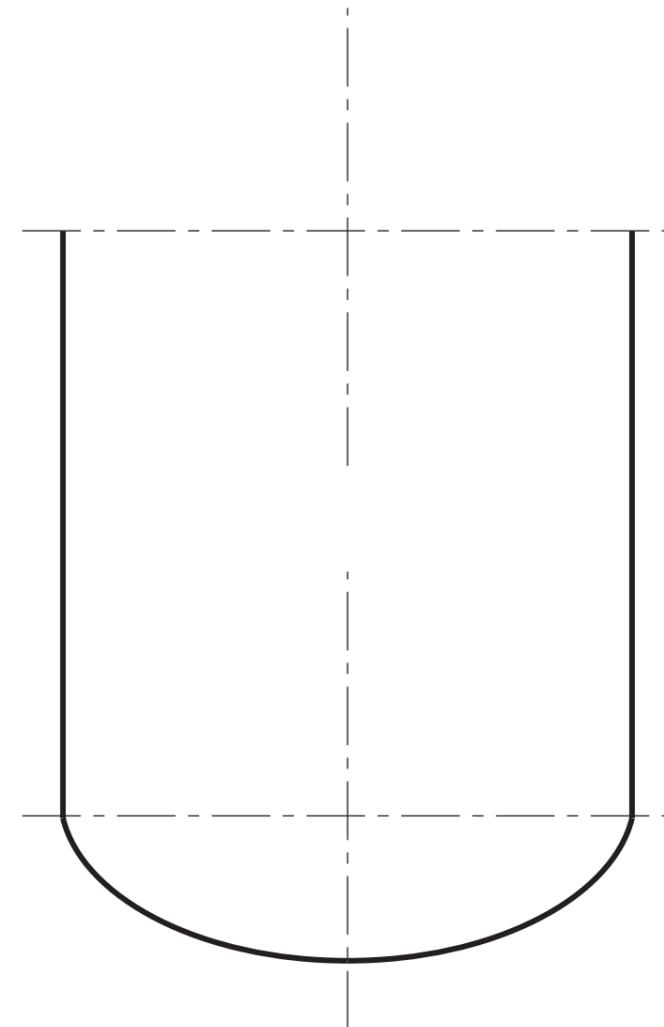**(ii)** A vinyl self-adhesive sticker of the image is to be made using Computer Aided Manufacturing (CAM).

State **one** suitable CAM machine for making the sticker.

.... [1]

BIN
IT

(iii) The manufactured sticker is to be positioned on the **front face** of the litter bin below the opening.

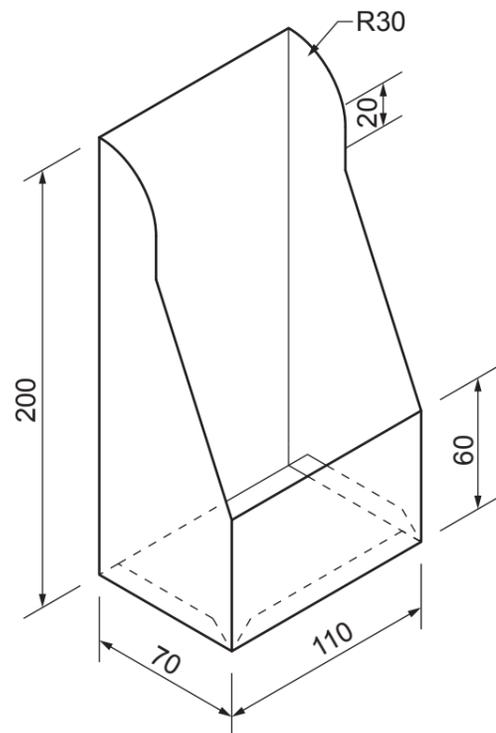State the maximum width & height of the sticker so that it can fit into the space available.

Width ....

Height... [2]

0445/21   May/June 2019   **1 hour**
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Centre Number ....   Candidate Number ....   Candidate Surname ....   Other Names ....   **[Turn over**

B5 A cardboard leaflet holder is shown below.

R30

20

200

60

110

70

(a) Complete the development (net) of the leaflet holder to a scale of 1:2. [10]
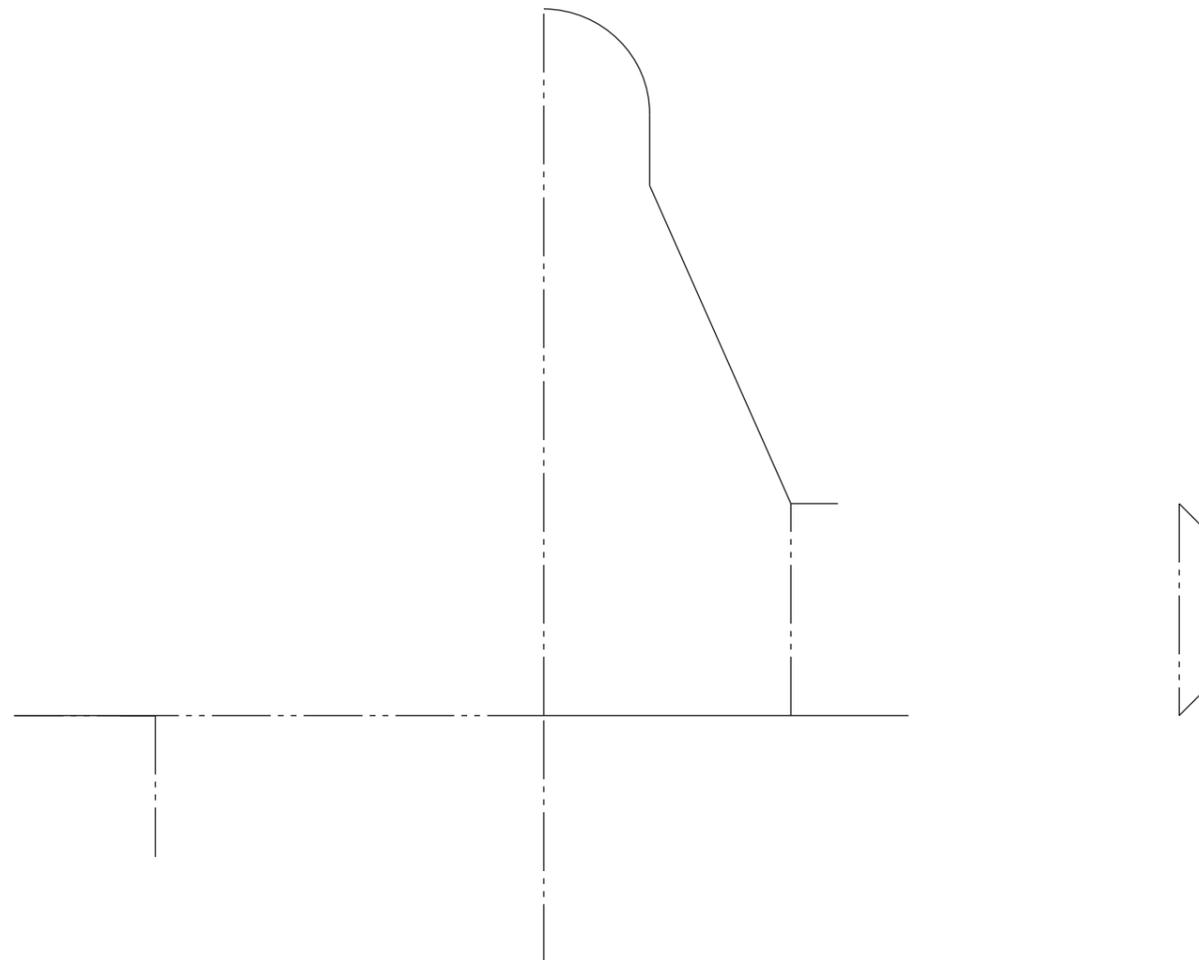
(b) Complete the table below to show **one** tool or item of equipment you would use to produce a prototype of the leaflet development (net).

Process	Tool / item of equipment
Marking out the development (net) on card	
Scoring the fold lines	
Cutting out the development (net)	

[3]

(c) The leaflet holders are to be produced in quantities of 5 000.

  (i) State a suitable adhesive for joining the development (net) together.

  .... [1]

  (ii) Explain **one** advantage of using a die cutter to manufacture the developments (nets).

  ....

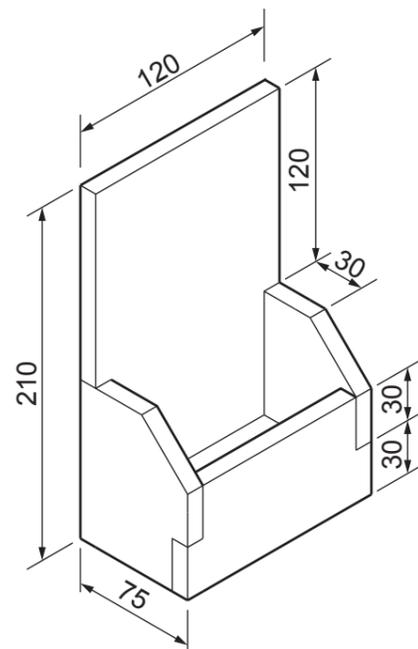 ....

  .... [2]

Another leaflet holder is shown to the right.

The leaflet holder is made from 15 mm thick MDF.

120

120

30

210

30 30

75

(d) To a scale of 1:3, complete the table by drawing the parts needed to make the leaflet holder. [9]

Base	Sides × 2	Back	Front