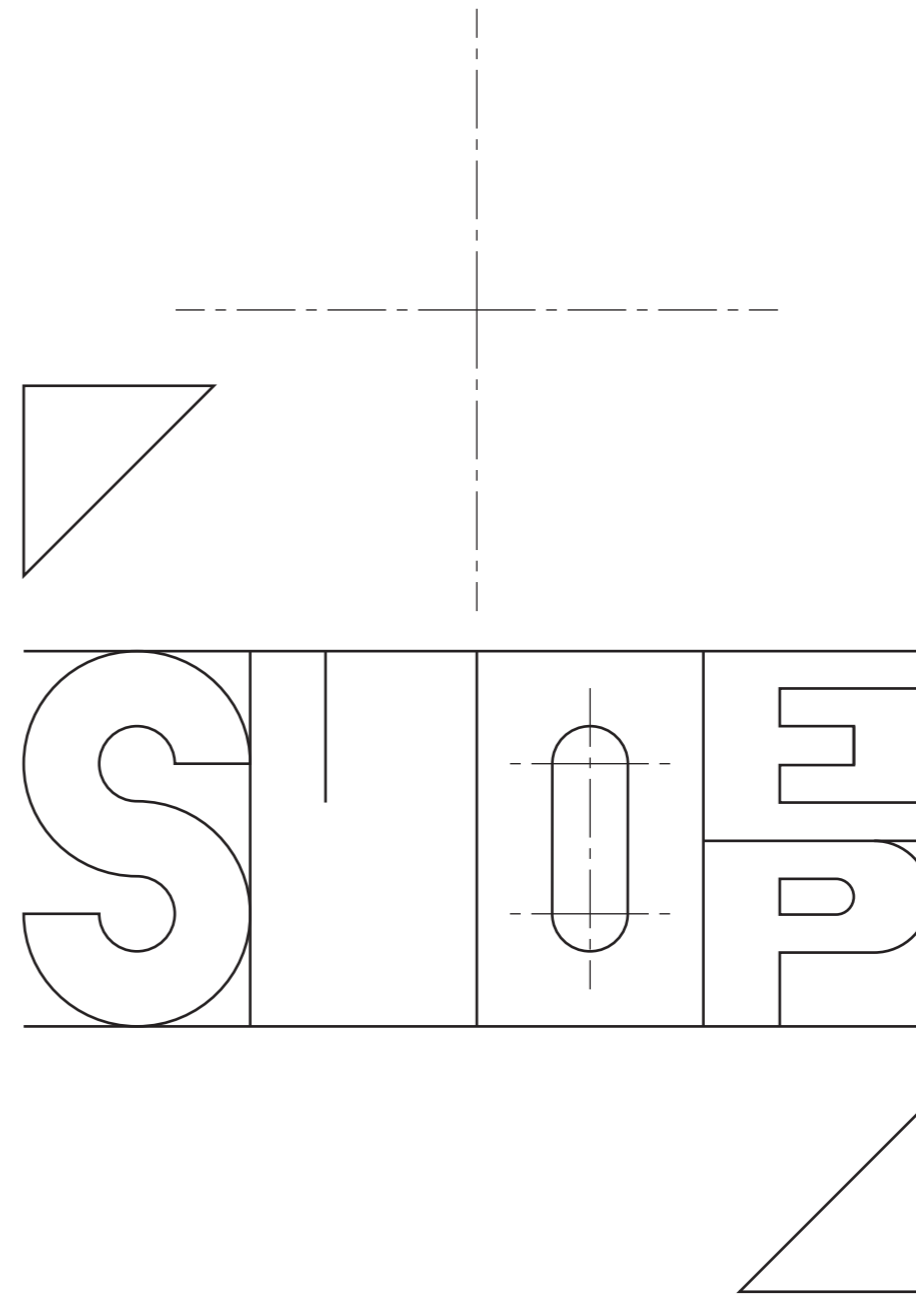
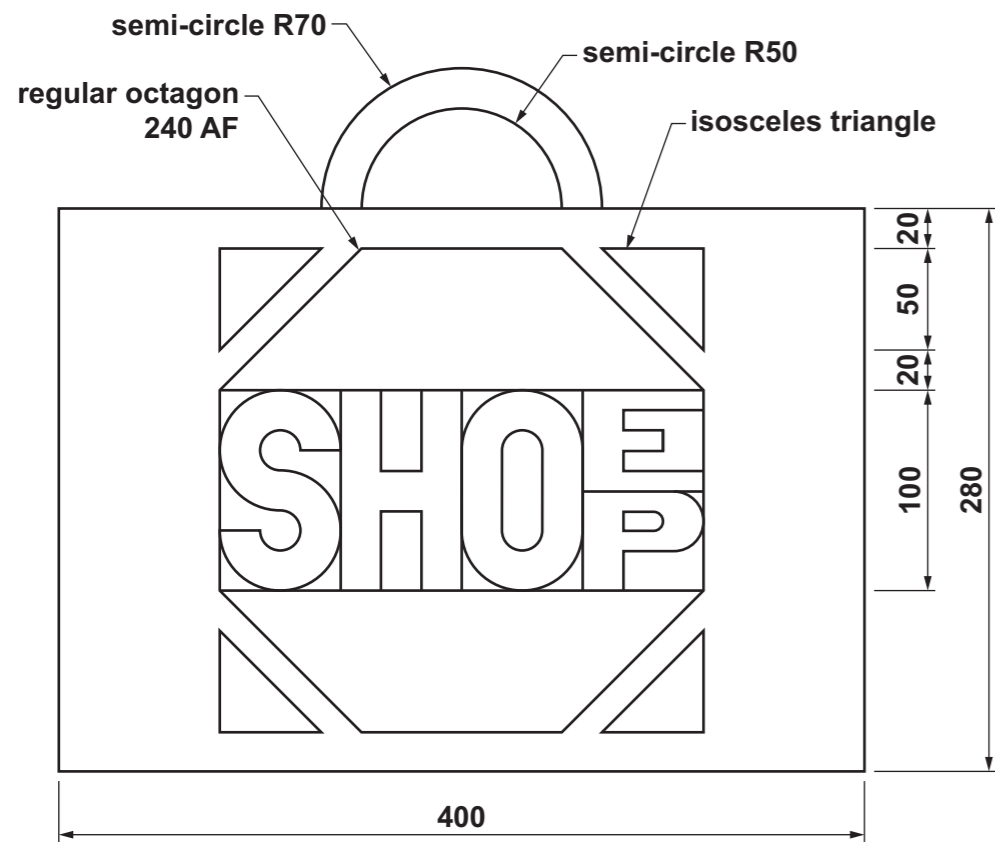


Section A

Answer **all** questions in this section.

A1 The side view of a carrier bag from a shoe shop is shown below.



An incomplete drawing of the side view of the carrier bag is shown to the right. Draw to a scale of 1:2:

- (a) the bag outline and handle [3]
- (b) the design on the side of the bag [5]
- (c) the missing lettering. [3]

A2 (a) The design on the side of the carrier bag is to be produced using a computer. State **one** way the lettering can be modified other than by changing the size.

..... [1]

(b) The design is to be printed using thermochromic ink. Describe how thermochromic ink works.

.....

 [2]

0445/52 Oct/Nov 2021 **1 hour**
 © UCLES 2021 DC (KS/CB) 200329/3

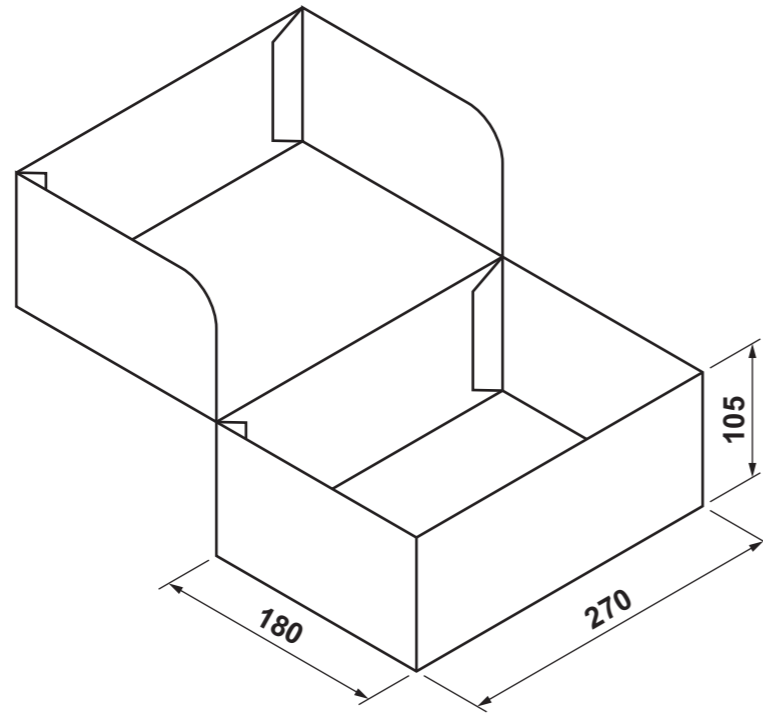
Centre Number Candidate Number Candidate Name **[Turn over]**

For Examiner's use

A3 A shoe box is shown below.

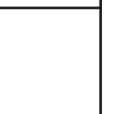
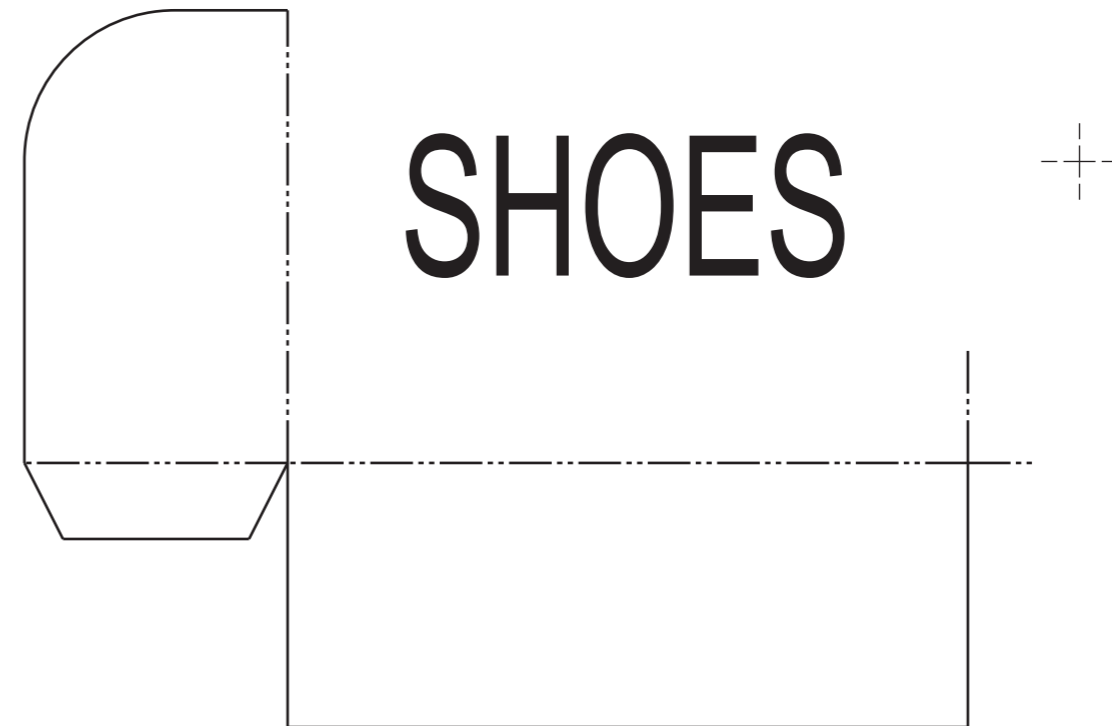


closed shoe box



open shoe box

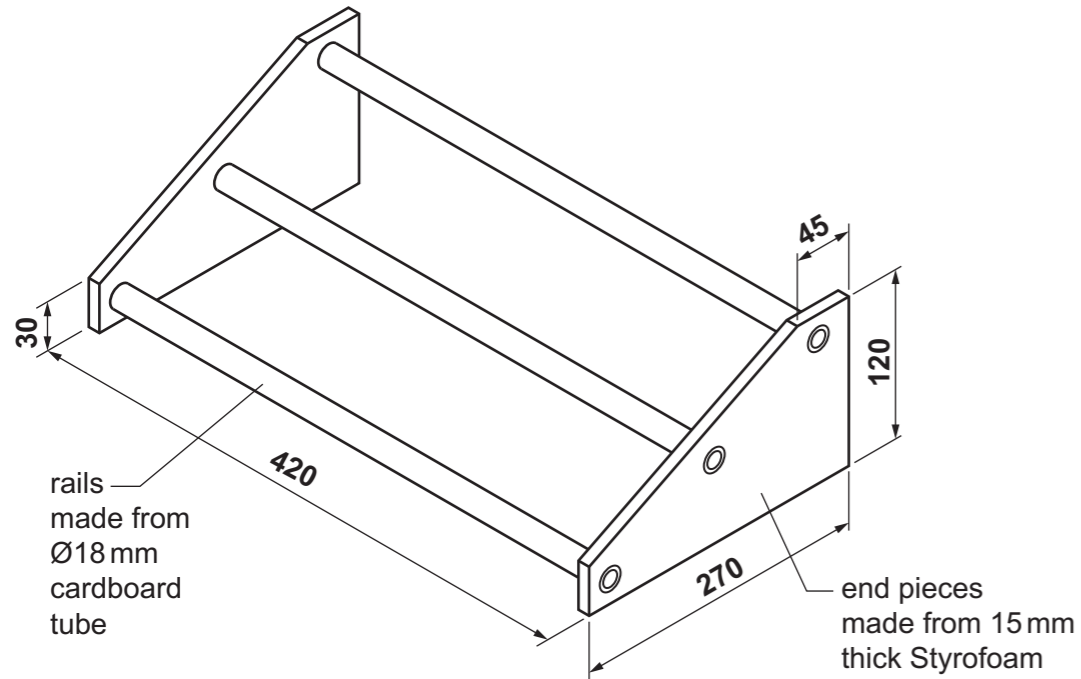
Complete the development (net) of the shoe box to a scale of 1:3. [11]



Section B

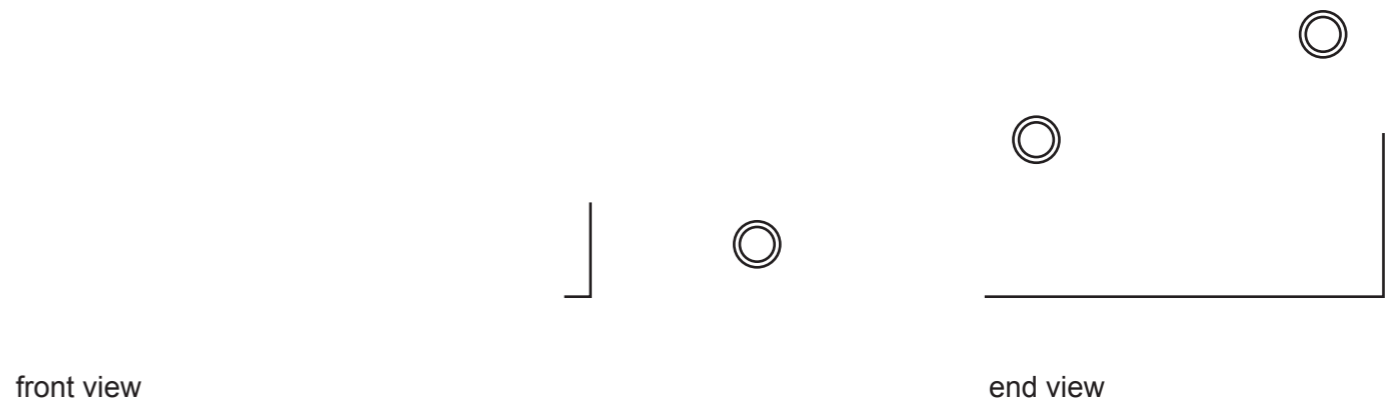
Answer **one** question, **either** question **B4** or **B5**, from this section.

B4 A model of a shoe rack is shown below.



(a) Complete the orthographic views of the shoe rack below to a scale of 1:3 by adding:

- (i) the missing lines to the end view [5]
- (ii) the missing lines to the front view [4]
- (iii) the hidden detail to the front view. [2]



(b) (i) State **two** properties of Styrofoam that make it suitable for the model of the shoe rack.

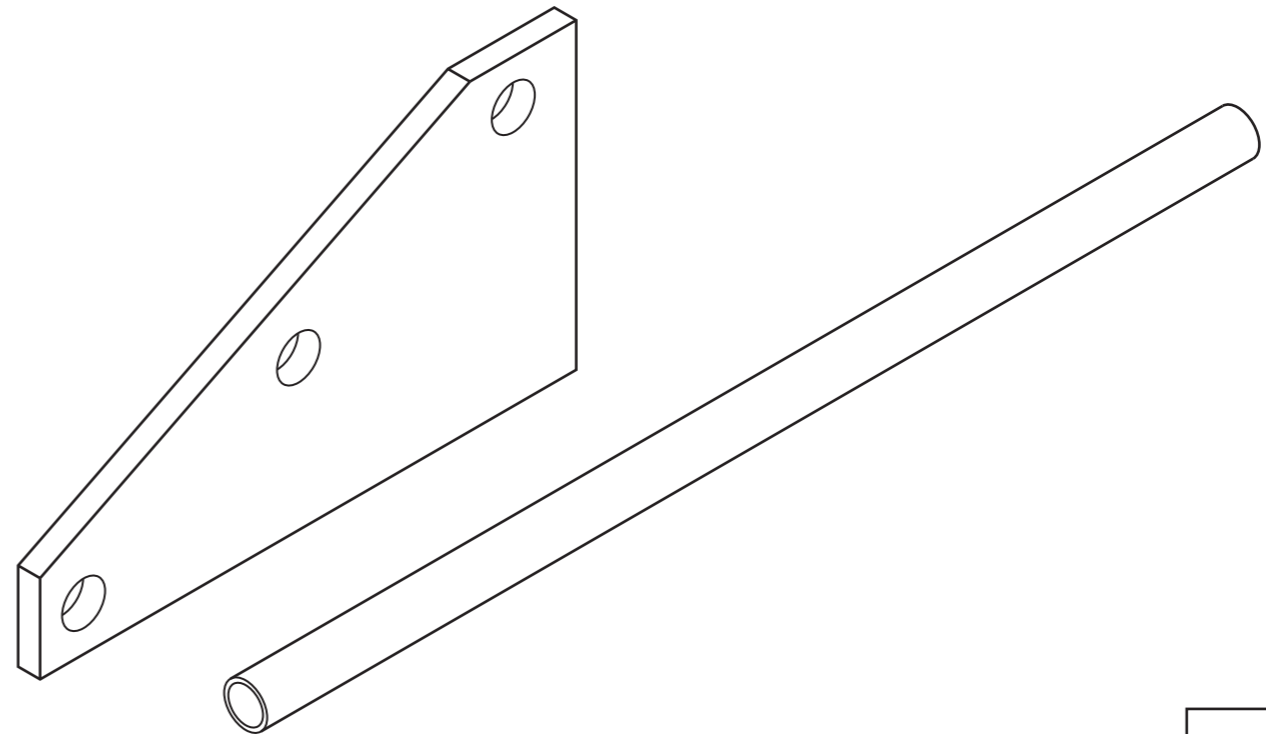
- 1
- 2 [2]

(ii) Explain the purpose of making a model.

-
- [2]

(d) A prototype of the shoe rack is to be made using aluminium tubes for the rails and hardwood for the two end pieces. One of the tubes and one of the end pieces are shown below.

- (i) Render the end piece to look like hardwood. [3]
- (ii) Render the rail to look like polished aluminium tube. [4]



(c) The model of the shoe rack is made by hand using workshop tools. Complete the table below by naming **one** tool/item of equipment used for each stage of the making process.

Making process	Tool/item of equipment
Cutting the Styrofoam end pieces to shape
Smoothing the edges of the Styrofoam end pieces
Securing the cardboard rails into the Styrofoam end pieces

[3]

0445/52 Oct/Nov 2021 **1 hour**
© UCLES 2021 DC (KS/CB) 200329/3

Centre Number

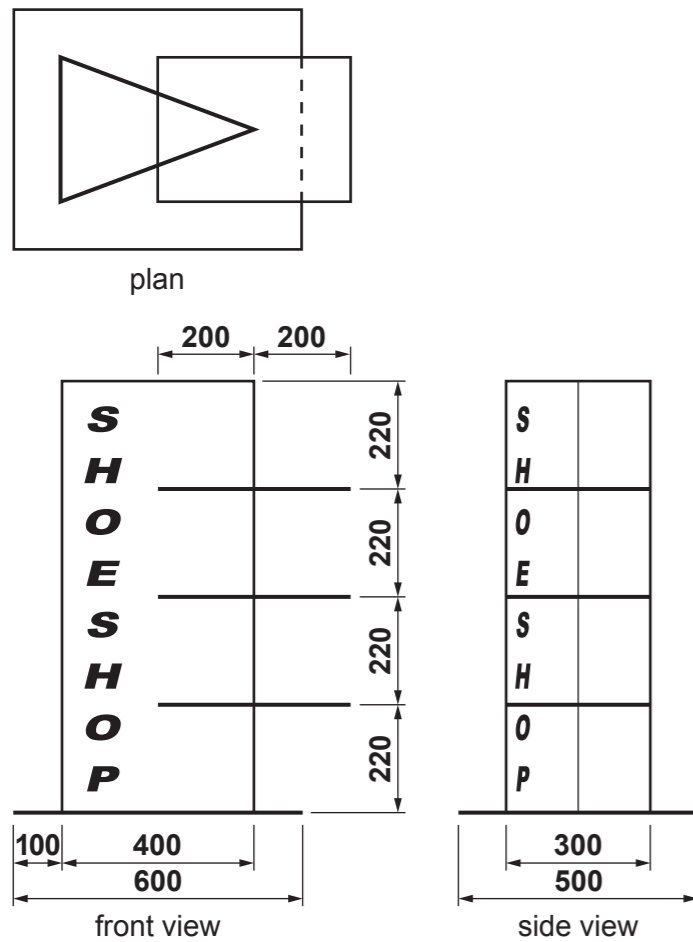
Candidate Number

Candidate Name

[Turn over

For Examiner's use

B5 Orthographic views of a display stand for shoes are shown below. The display stand is made from 5 mm corrugated card.



(a) Complete the isometric view of the display stand to a scale of 1:10.
Ignore the thickness of the material. [14]

(b) The display stand is to be manufactured in quantities of 1000.

(i) State a suitable method of cutting and creasing the corrugated card. [1]

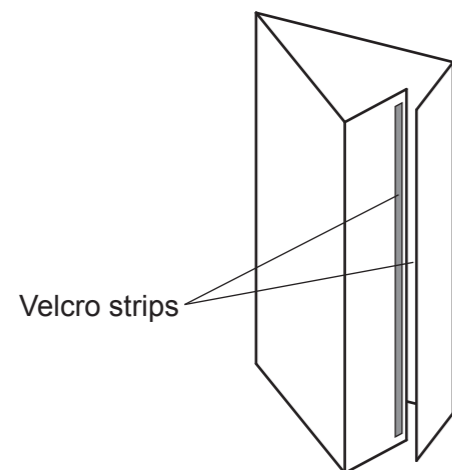
..... [1]

(ii) The SHOESHOP text is to be produced on a computer and added to the display stand after it has been assembled.

Describe **one** method of transferring the lettering from the computer to the display stand.

..... [3]

(c) The triangular section of the display stand is held together by Velcro strips as shown below.
Use sketches and notes to show an alternative method of temporarily securing the two edges of the display stand together without the use of adhesives. [3]



(d) The table below shows the sales of the most popular footwear in the shop over one month.

In the space below draw a bar chart to show the sales of each shoe type. [4]

Shoe type	Number sold
Trainers	148
Boots	110
Wedges	134
Sandals	92
Slippers	76