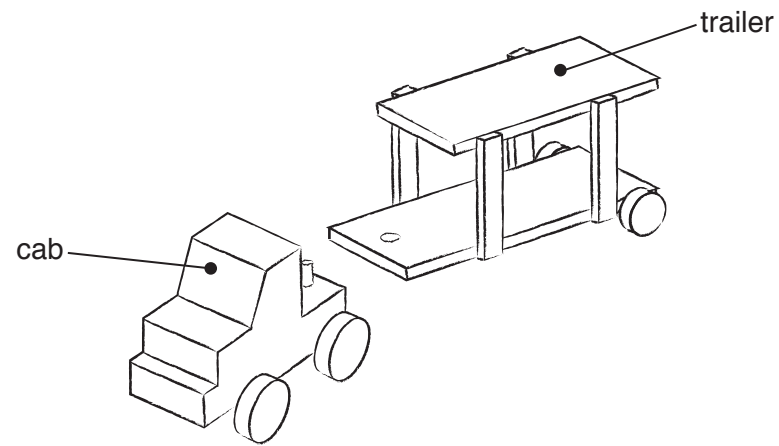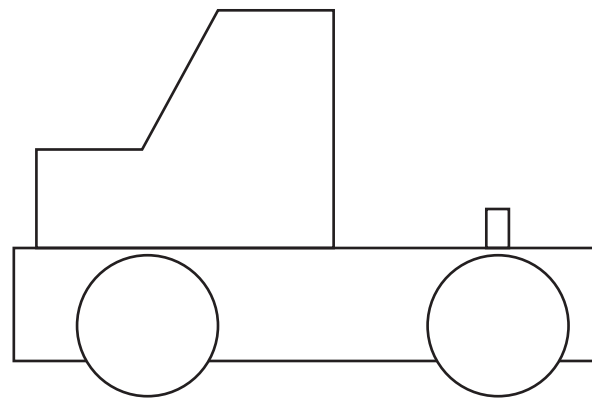**Section A**
Answer **all** questions in this section.
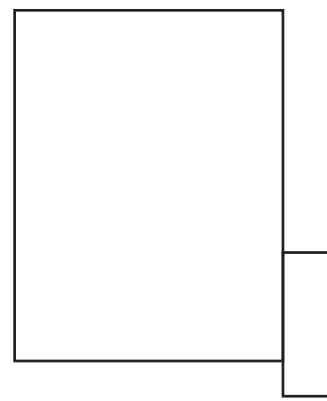
A1 A sketch of a model of a car transporter is shown below.
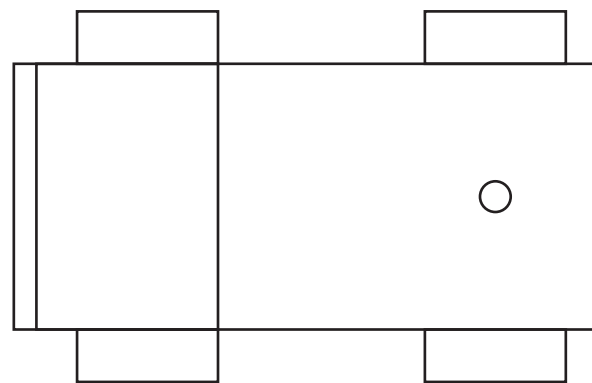
trailer

cab

Complete the orthographic views of the cab of the car transporter shown below. [6]

side view

end view

plan
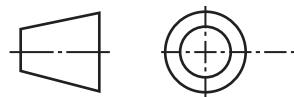
A2 The trailer is to be redesigned to include a mechanism that allows the top of the trailer to lower. A model of the mechanism is made from four strips of card shown below.
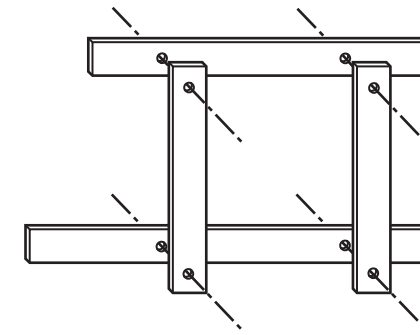
(a) Sketch and name a method of fastening the strips of card together. [2]

(b) Complete the schematic drawing below to show the path of point A as the line X – Y moves from a vertical to a horizontal position. [4]
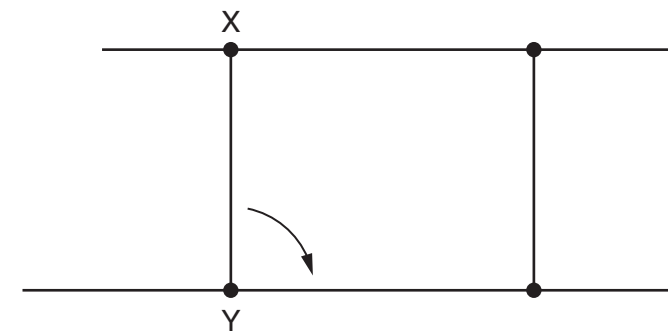
X   A

Y

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Sheet 1 of 2

A3 Car shapes cut from foam board sheet are added to the trailer of the car transporter.

Orthographic views of one of the car shapes are shown below.
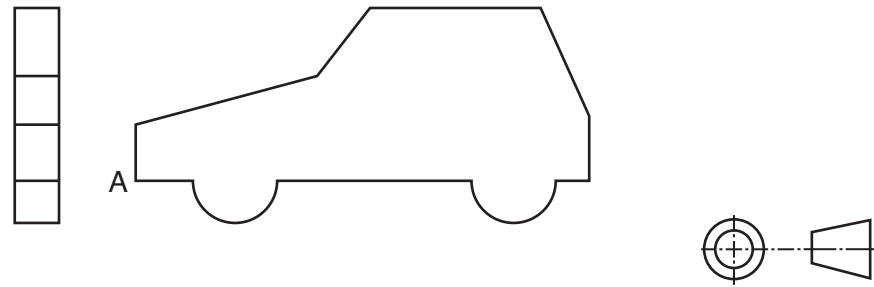
(a) Construct a 2 : 1 isometric drawing of the car shape from the given start point **A**.
Sizes should be taken from the orthographic views. [7]

(b) State **two** reasons why foam board is a suitable material for the car shape.

1. .... [1]

2. .... [1]

(c) Describe how a computer could be used to search for and capture a car shape.

Search for ....

....

.... [2]

Capture ....

....

.... [2]
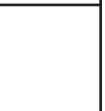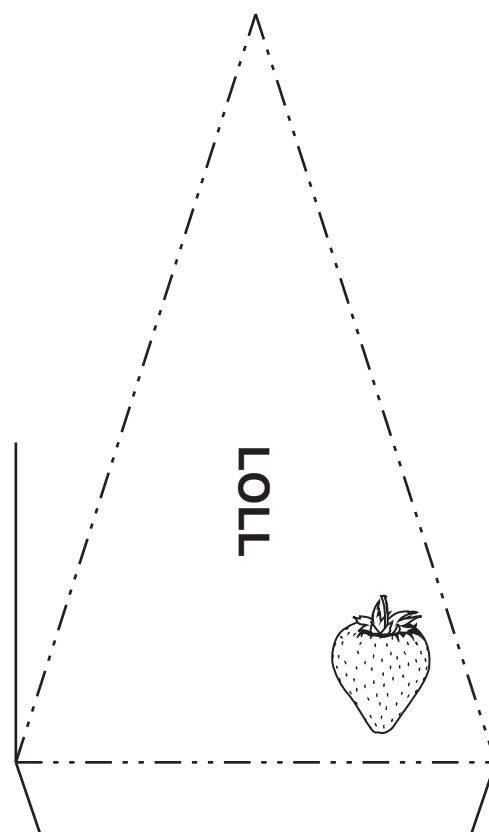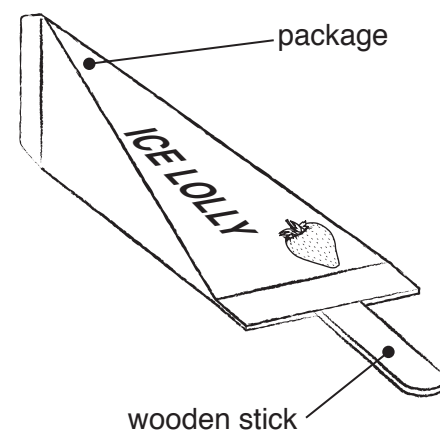
↓

A

Section B

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

B4 A sketch of a package for an ice lolly is shown on the right.

    (a) Complete the full size drawing of the development (net) of the package for the ice lolly below by:

        (i) adding the missing surfaces; [8]

        (ii) adding the missing glue tabs; [4]

        (iii) completing the name ICE LOLLY. [3]

package

ICE LOLLY

wooden stick

LOLL

(b) Describe the printing method used to produce 10 000 colour copies of the package for the ice lolly.

....

....

....

....

....

....

....

....

.... [6]

**(c)** Name and justify the choice of a colour for the fruit shape on the package for the ice lolly.

....

....

.... [2]

(d) Draw and name another symbol that should be added to the package for the ice lolly. [2]

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B5 A package for a toy is shown on the right.

(a) On the start lines below complete the estimated two-point perspective drawing of the package for the toy. [15]

clear plastic cover

semi-circular tab

card

VP1 ┼

┼ VP2
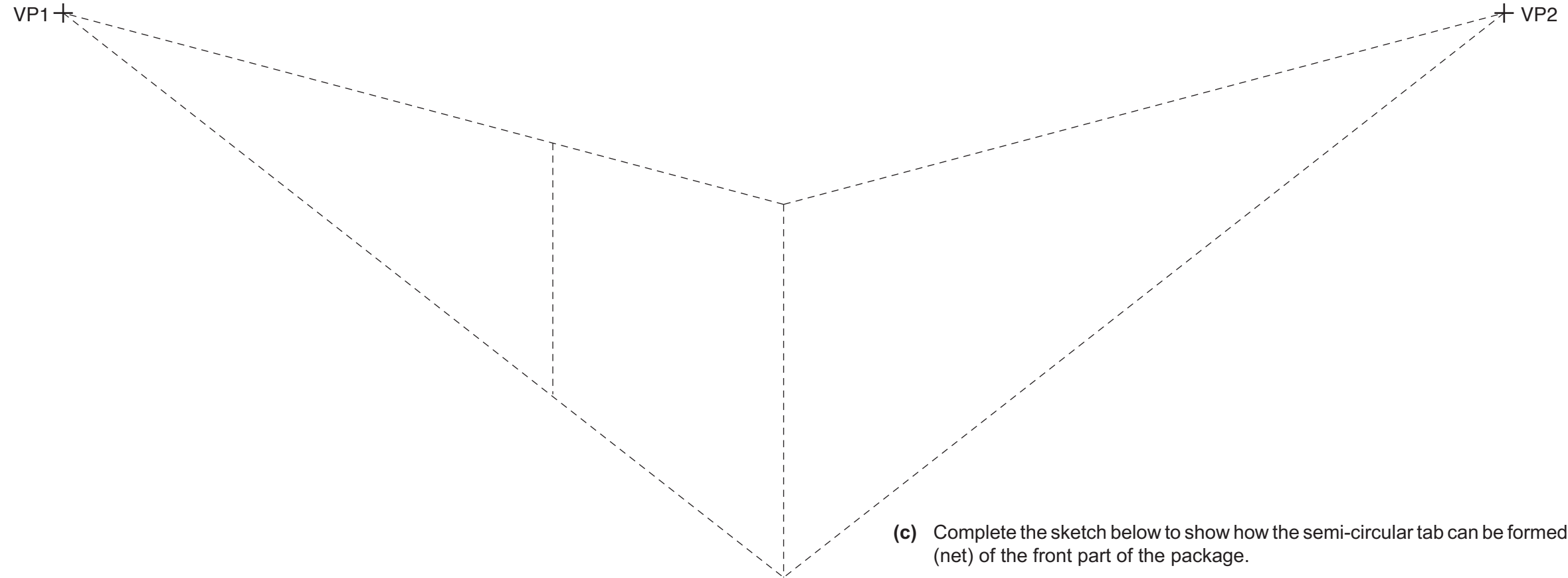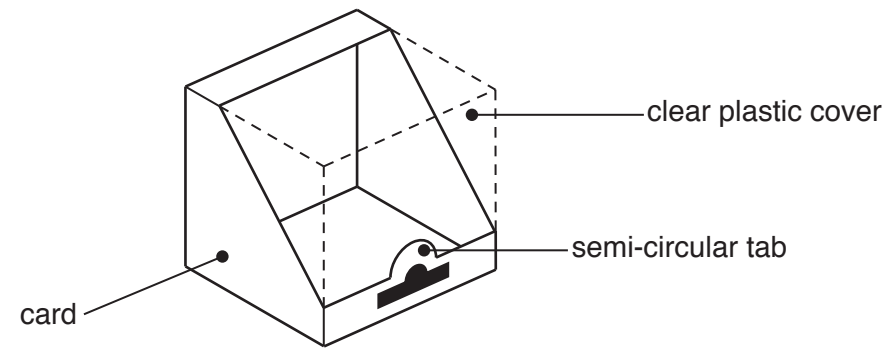
(c) Complete the sketch below to show how the semi-circular tab can be formed in the development (net) of the front part of the package. [4]

(b) Use sketches and notes to show a method of making the clear plastic cover. [6]