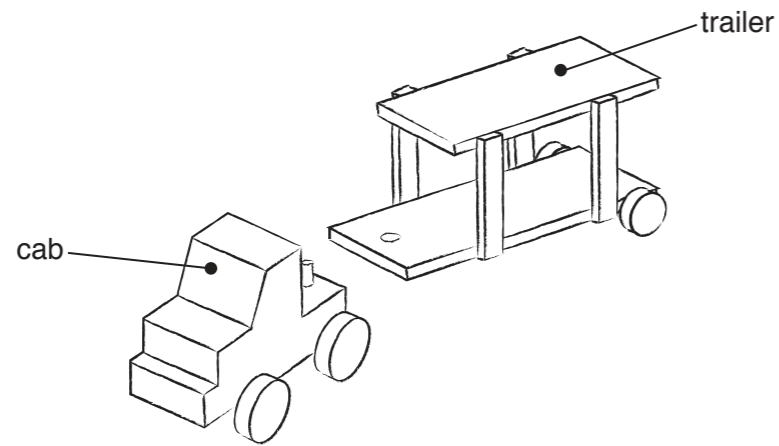


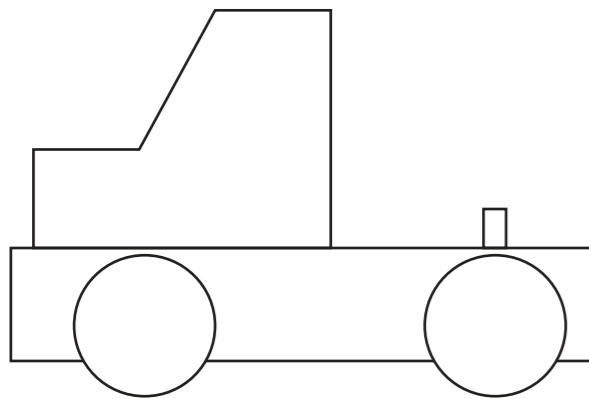
**Section A**

Answer **all** questions in this section.

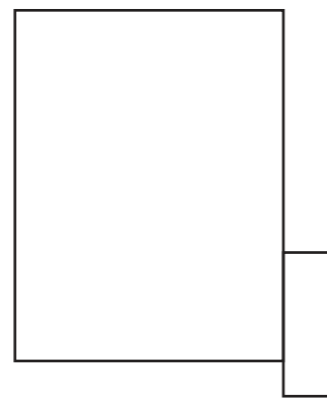
**A1** A sketch of a model of a car transporter is shown below.



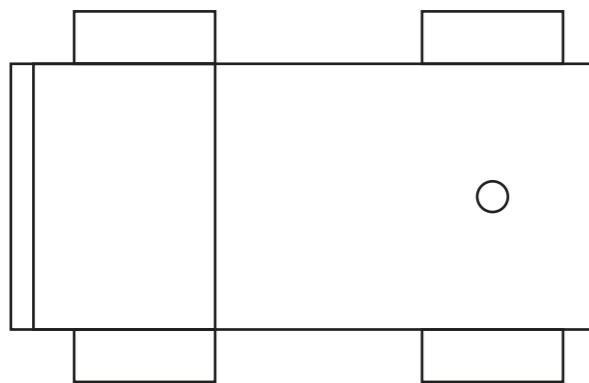
Complete the orthographic views of the cab of the car transporter shown below. [6]



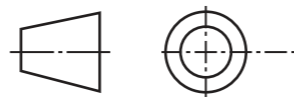
side view



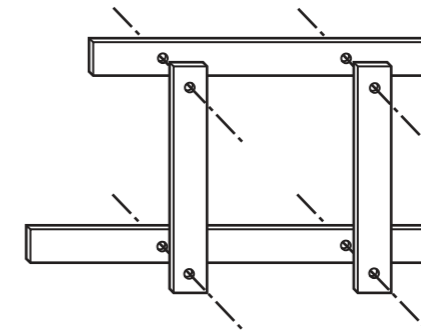
end view



plan

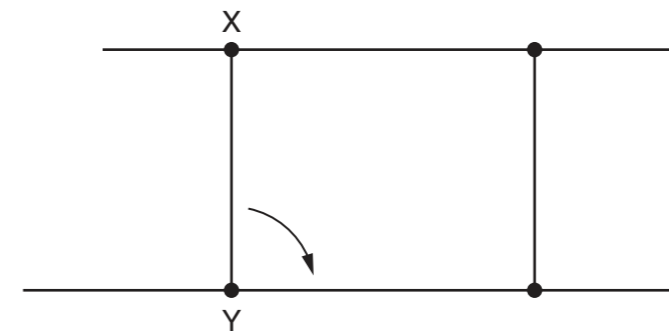


**A2** The trailer is to be redesigned to include a mechanism that allows the top of the trailer to lower. A model of the mechanism is made from four strips of card shown below.



(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]



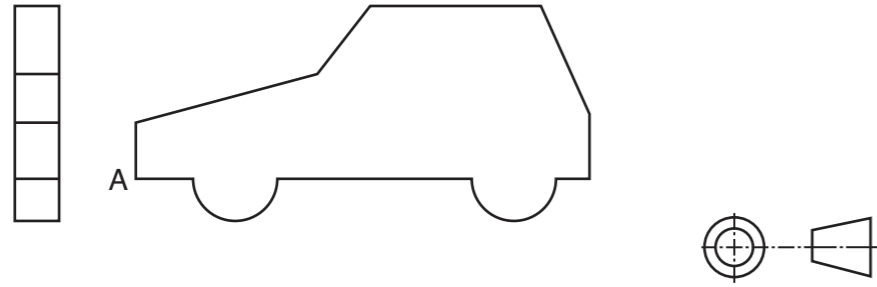
For  
Examiner's  
use

**0445/22** May/June 2017 **1 hour**  
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Centre Number ..... Candidate Number ..... Candidate Surname ..... Other Names ..... **[Turn over**

**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 .....

.....

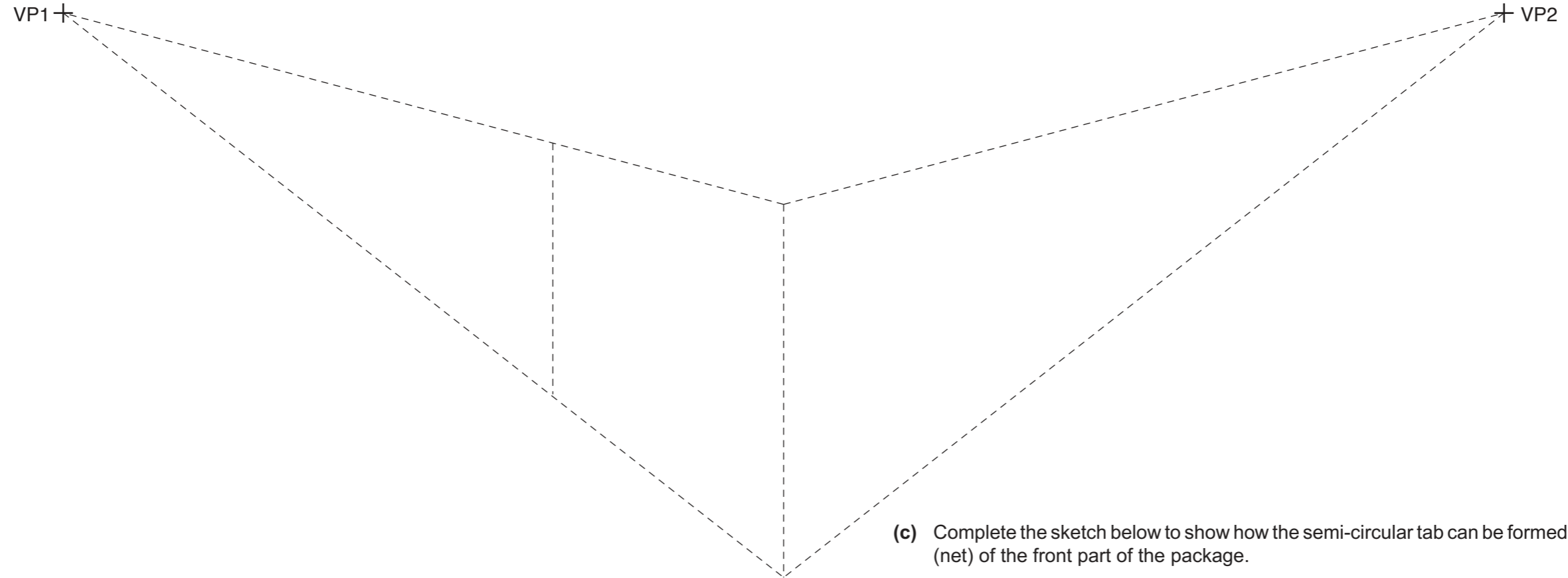
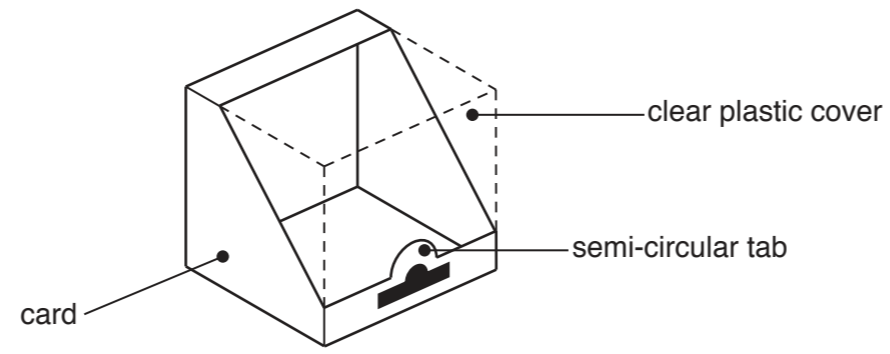
..... [2]





**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]



**(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]

