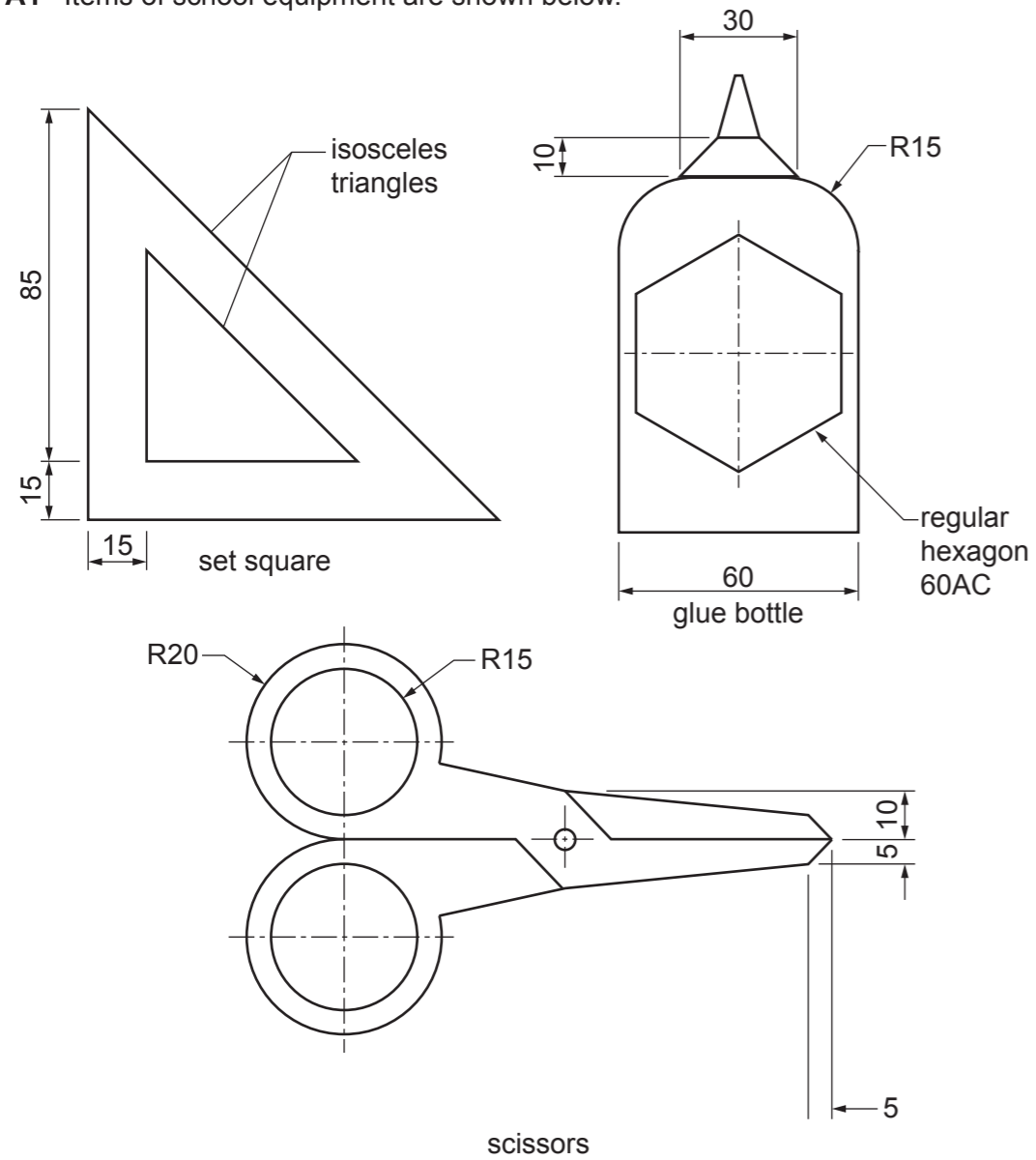


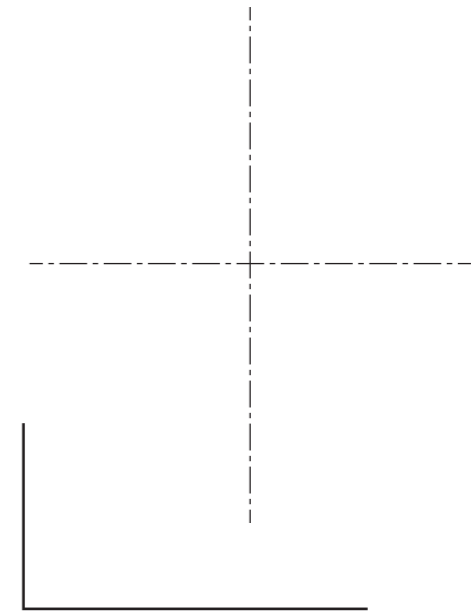
**Section A**

Answer **all** questions in this section.

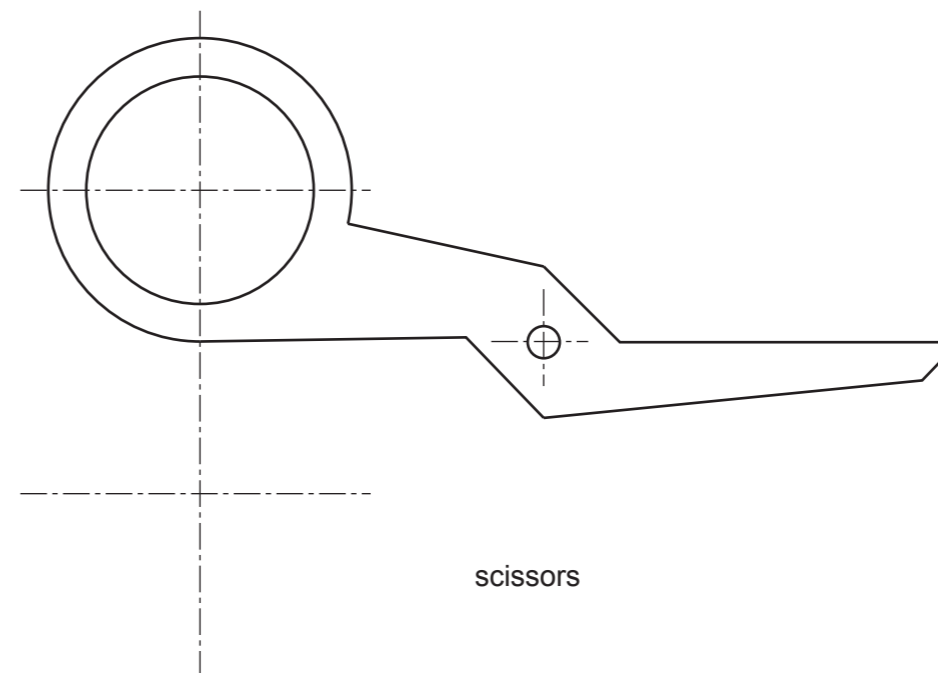
**A1** Items of school equipment are shown below.



set square



glue bottle



scissors

- (a) Complete the full-size drawing of the set square by adding the inner and outer isosceles triangles. [3]
- (b) Complete the full-size drawing of the glue bottle by adding:
  - (i) the outline [2]
  - (ii) the nozzle [2]
  - (iii) the hexagonal label. [3]
- (c) Complete the full-size drawing of the scissors by adding:
  - (i) the missing handle [3]
  - (ii) the missing blade. [2]

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**0445/53**

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DC (PQ/SW) 329778/5

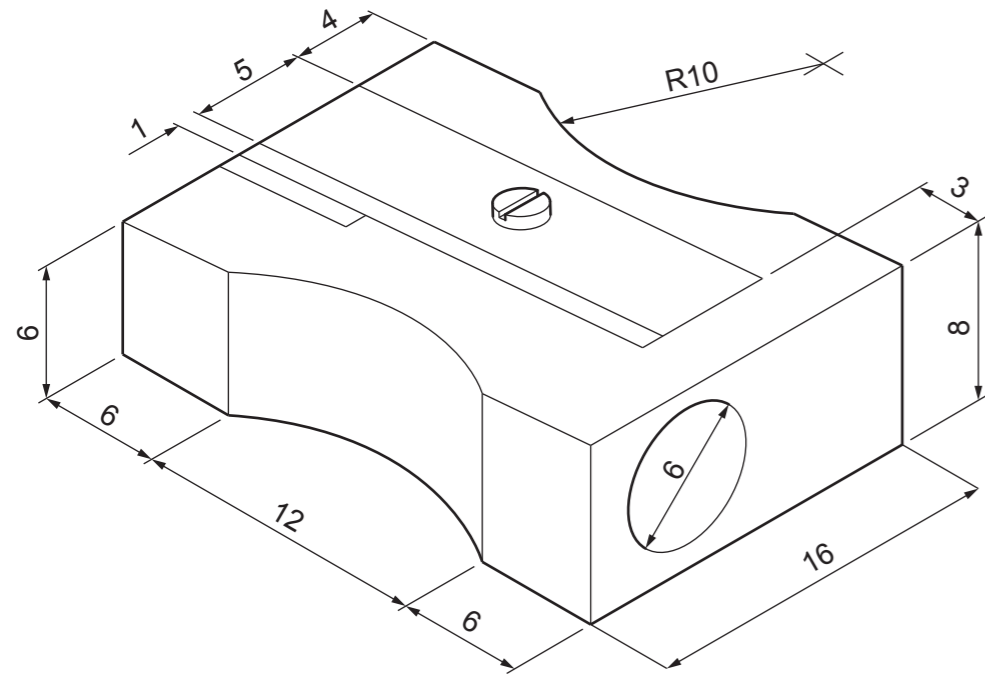


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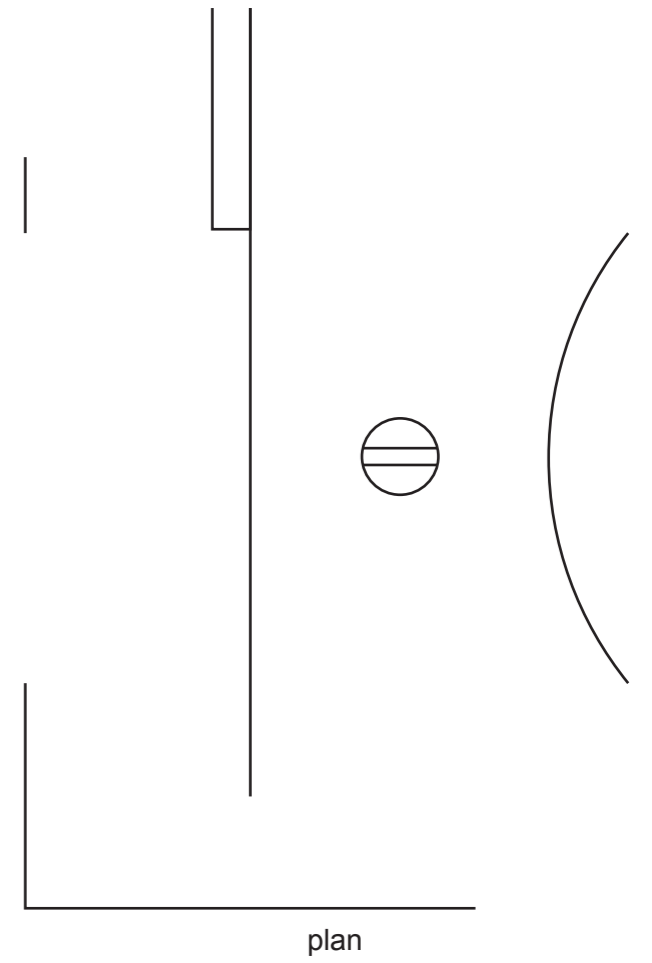
Candidate Name .....

**[Turn over**

**A2** A pencil sharpener is shown below.

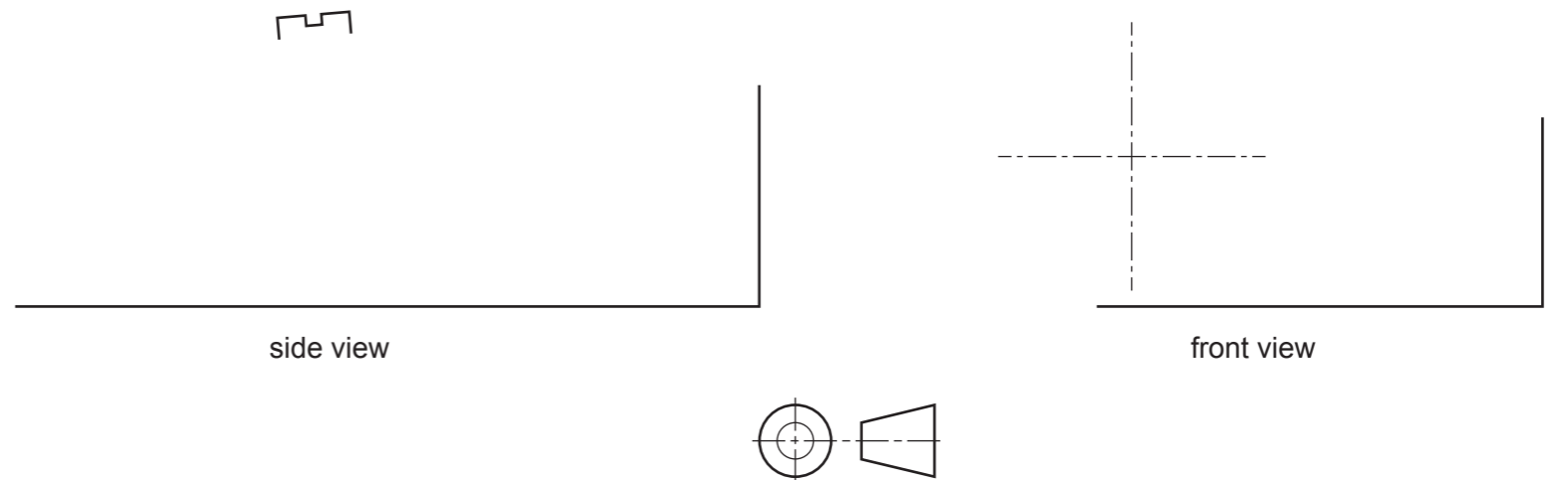
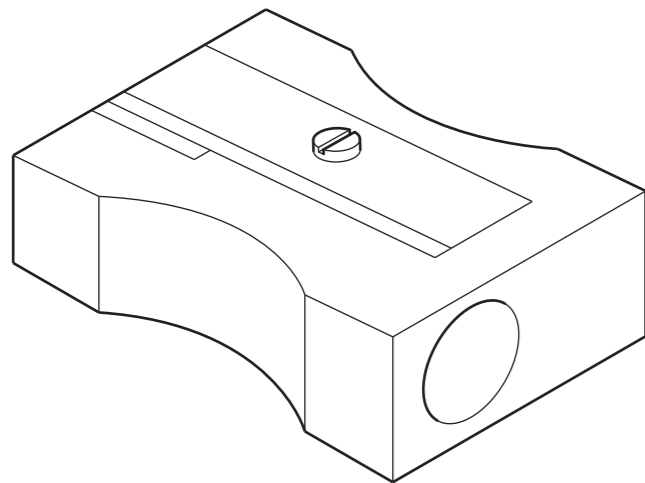


Complete the full size orthographic views of the pencil sharpener to a scale of 5:1. [7]



**A3** The pencil sharpener will be made from aluminium.

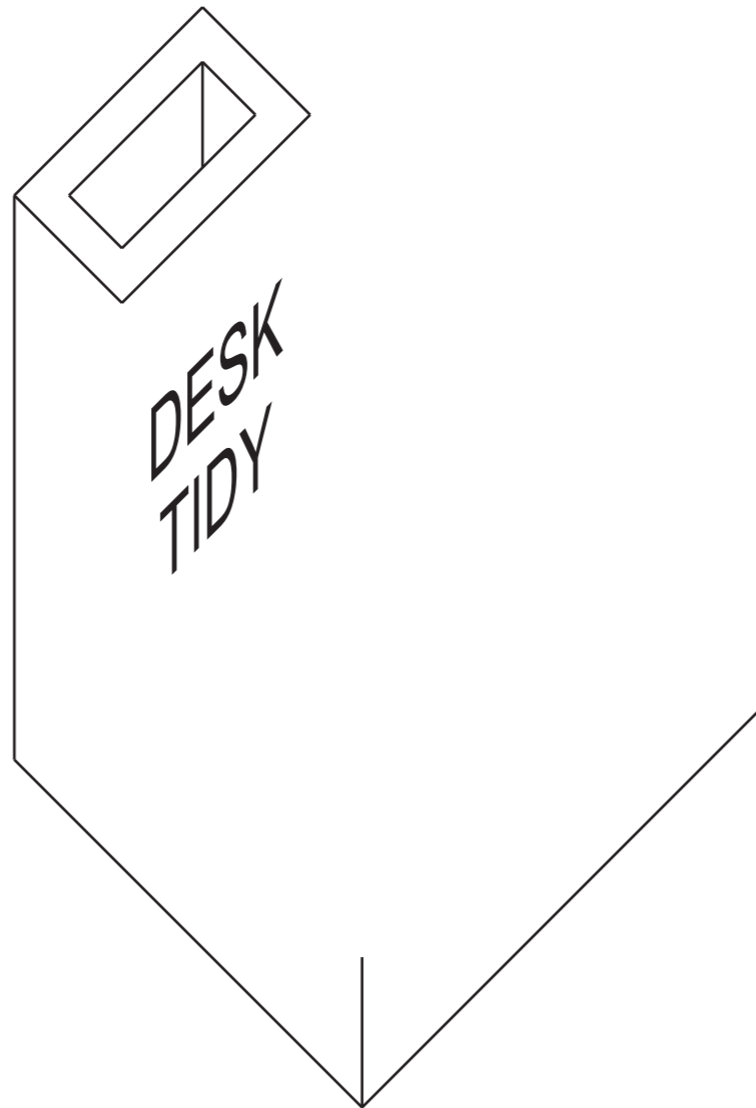
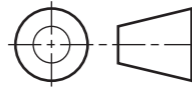
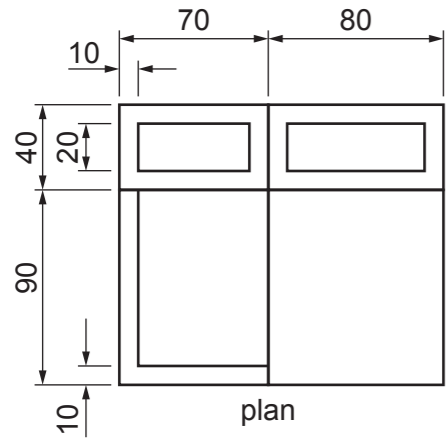
Render the pencil sharpener to look like aluminium. [3]



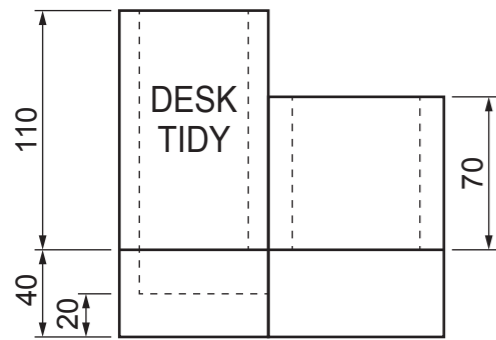
**Section B**

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

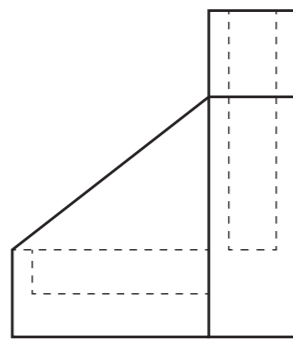
**B4** Orthographic views of a desk tidy are shown below.



planometric view



front view



side view

(a) Complete the planometric view of the desk tidy to a scale of 1:2. [12]

(b) The lettering on the desk tidy is to be replaced with an image.

(i) Explain **one** reason why an image would be used instead of text.

.....  
 ..... [2]

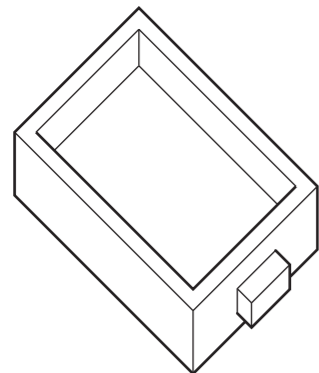
(ii) Sketch a design for a suitable image for the desk tidy. [2]

(iii) Explain how a computer could be used to help create an image for the desk tidy.

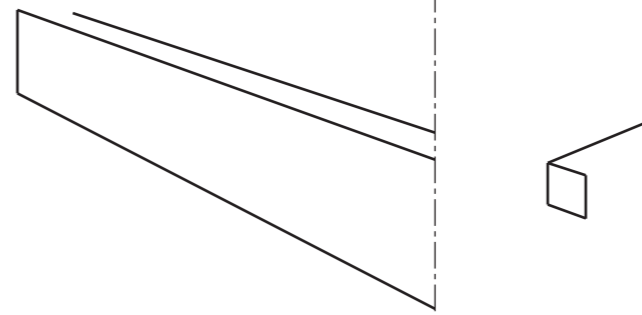
.....  
 ..... [2]

(c) A drawer is to be added to the desk tidy.

The drawer is shown below:



Complete the estimated two-point perspective view of the drawer. [7]



estimated two-point perspective view

**0445/53**

May/June 2024

**1 hour**

DC (PQ/SW) 329778/5



Centre Number ..... Candidate Number .....

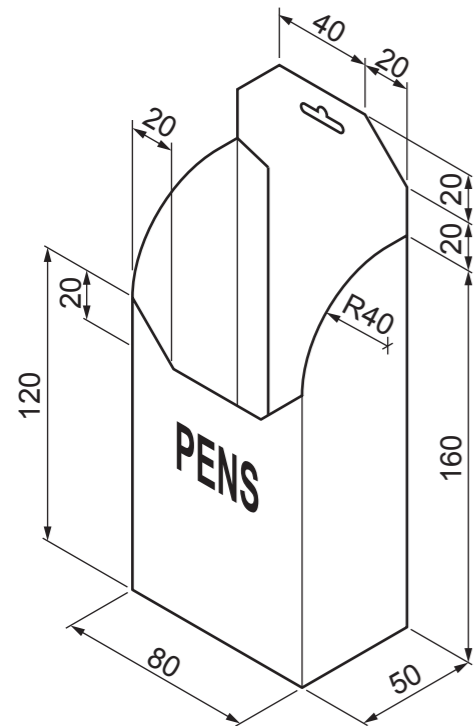
Candidate Name .....

**[Turn over**

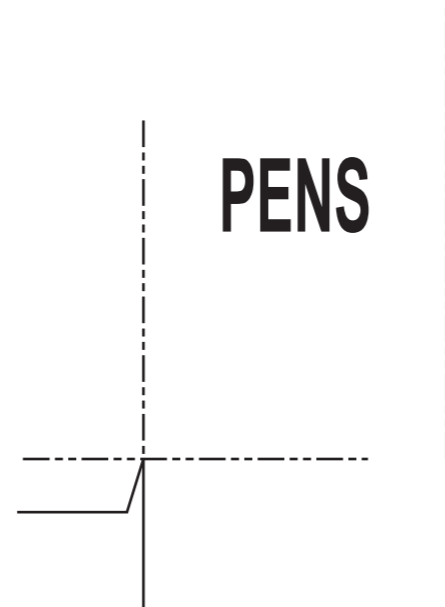
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**B5** A design for a container for pens is shown below.

The container is made from thin card.



(a) Complete the development (net) of the container for pens to a scale of 1:2 [10]



development (net)



(b) A prototype of the container for pens will be made by hand.

Complete the table to show the processes and tools/items of equipment that would be used to make the prototype. [3]

Process	Tools/items of equipment
Drawing out the development (net)	Pencil, rule and compass
Cutting out the development (net)	
	Scoring tool and rule
Gluing the development (net) together	

(c) Once the prototype has been made, the container for pens will be produced in larger quantities.

(i) Name **one** item of CAD/CAM equipment that could be used to produce a batch of 30 developments (nets).

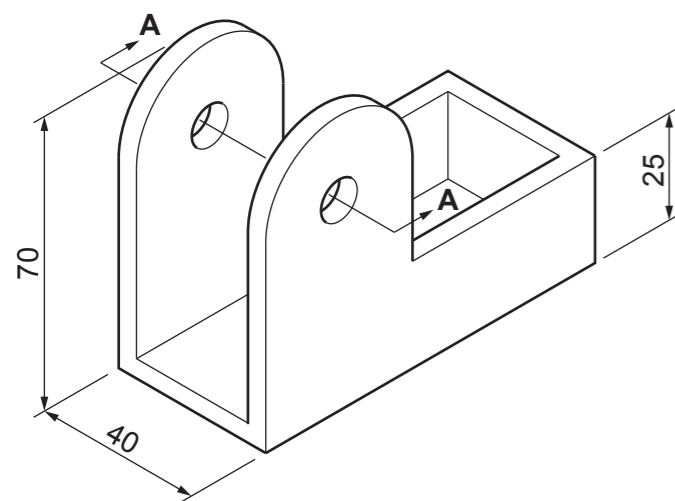
..... [1]

(ii) Name a suitable method of producing the developments (nets) in quantities of 10 000.

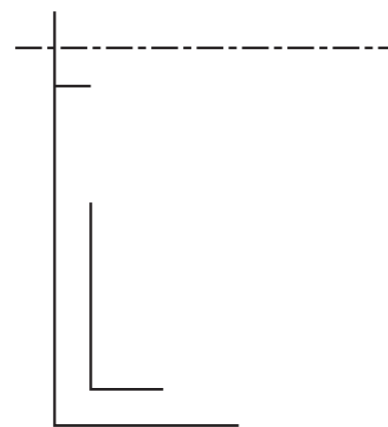
..... [1]

(d) A tape dispenser is shown below.

The tape dispenser is made from 5 mm thick acrylic.

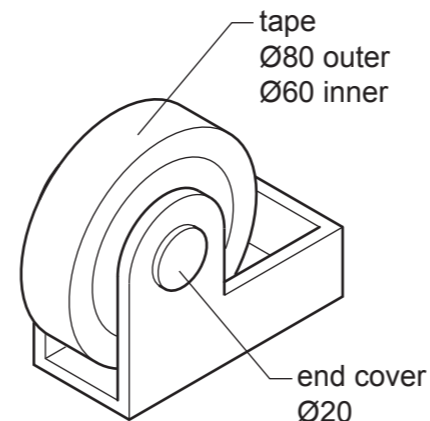


Complete the full size sectional view A-A of the tape dispenser. [7]



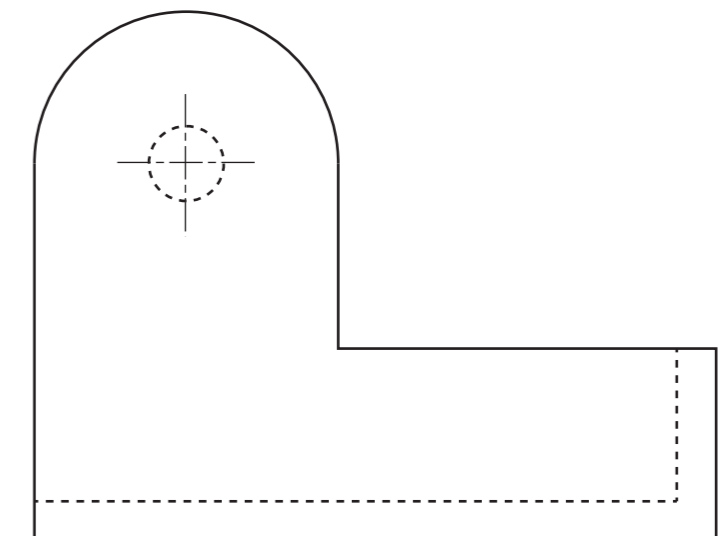
sectional view A-A

(e) A roll of tape fitted into the tape dispenser is shown below.



Complete the full size side view of the tape dispenser by adding the roll of tape and end cover.

Include hidden detail. [3]



side view