

Candidate 1 evidence

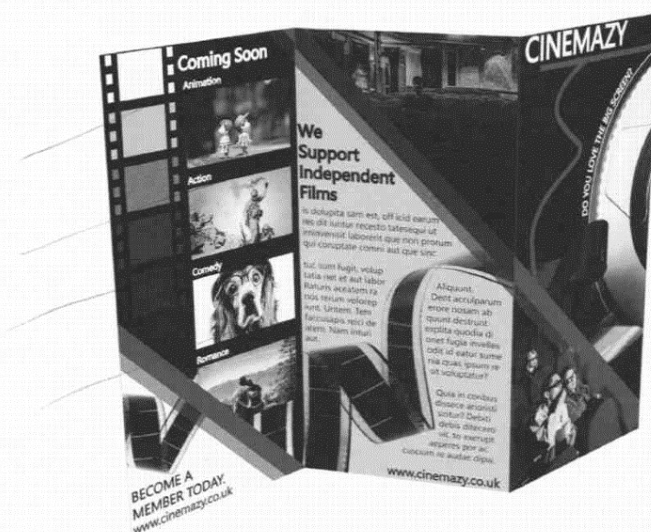
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Total marks — 90

Attempt ALL questions

For questions 1 (a) to (f), refer to the information provided on supplementary sheets 1 and 2.

A three-fold leaflet has been created for the independent cinema, Cinemazy.



1. (a) Describe, giving two examples, how the graphic designer's use of contrast has enhanced the layouts.

2

- The 'Coming Soon' text is white which contrasts with the black background.
- The red hyperlink at the bottom left contrasts with the pure white background.

- (b) Describe, giving two examples, how the graphic designer has created rhythm to enhance the layouts.

2

- Rhythm has been used on the genre headings 'Animation, Action, etc' as they are all white and contrast with the black background. Rhythm has also been used as all headings are white (Cinemazy, Coming soon)

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1. (continued)

- (c) Describe, giving **two** examples, how the graphic designer has used value in the layouts.

2

Value has been used on the graphic of film as it gets darker the lower it is. (Continued on extra space)

- (d) Describe, giving **two** examples, how the graphic designer has created depth in the layouts.

2

Depth has been created through the use of 3D graphics as the twisting tape creates this.

Drop shadow on the photo of people at bottom right also creates depth.

- (e) Describe, giving **two** examples, how the graphic designer has used alignment in the layouts.

2

Alignment has been created as all of the graphics under 'Coming soon' align centrally. 'We support independent films' text aligns on the left.

- (f) Explain, giving **one** example, why the graphic designer has used emphasis in the layouts.

1

Emphasis has been used on the heading 'The biggest' which is the largest text on the page. This creates emphasis through dominance. (See extra space)

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1. (continued)

The graphic designer created the logo for Cinemazy as a vector file and stored it in the cloud.



- (g) (i) Describe **two** advantages of creating the logo in the vector file format. 2

- Vector images are infinitely scale-able, they do not pixelate when enlarged.
- they take up less ^{Storage} space ~~when~~ than they would as raster files.

- (ii) Describe **two** advantages of cloud storage. 2

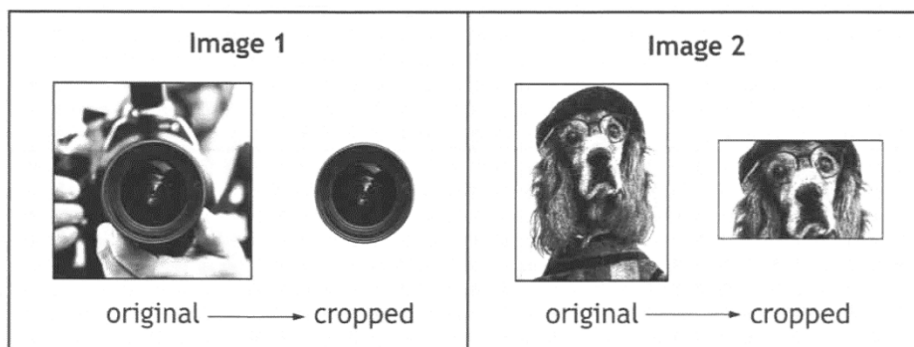
- files can be accessed remotely.
- they can be accessed by multiple people and shared wirelessly.

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1. (continued)

The graphic designer has used cropping to edit the images used in the layouts.



(h) State the name of the crop applied to the images shown above.

2

(i) Image 1 Full Crop

Image 2 Square Crop

(ii) Describe the effects that the two types of cropping have created within the layouts.

2

• Full Crop Creates emphasis on a certain part of an image.
• Square Crop Creates the same emphasis but keeps the detail of the background

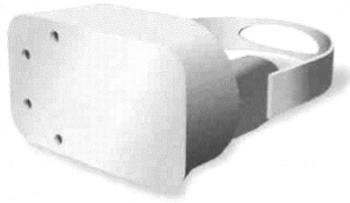
The graphic designer used placeholder text in the preliminary layouts.

(i) Explain one advantage to the graphic designer of using placeholder text.

1

It allows the designer to see what the graphic would look like with certain fonts.

2. A tech company is developing a new virtual reality (VR) headset. A prototype is shown below.



Bottom-up modelling was used to create the VR headset components.

- (a) Describe the process of bottom-up modelling.

2

- Each part is made individually
- They are then assembled at the end
- Finishes/materials are then added

For questions 2 (b), c (i) and c (ii), refer to the information provided on supplementary sheet 3.

- (b) Explain the purpose of the detail view D.

1

It gives whoever reading it a clear view of the joining method of the parts.

- (c) (i) State the name of the type of section shown at A-A.

1

Stepped Section

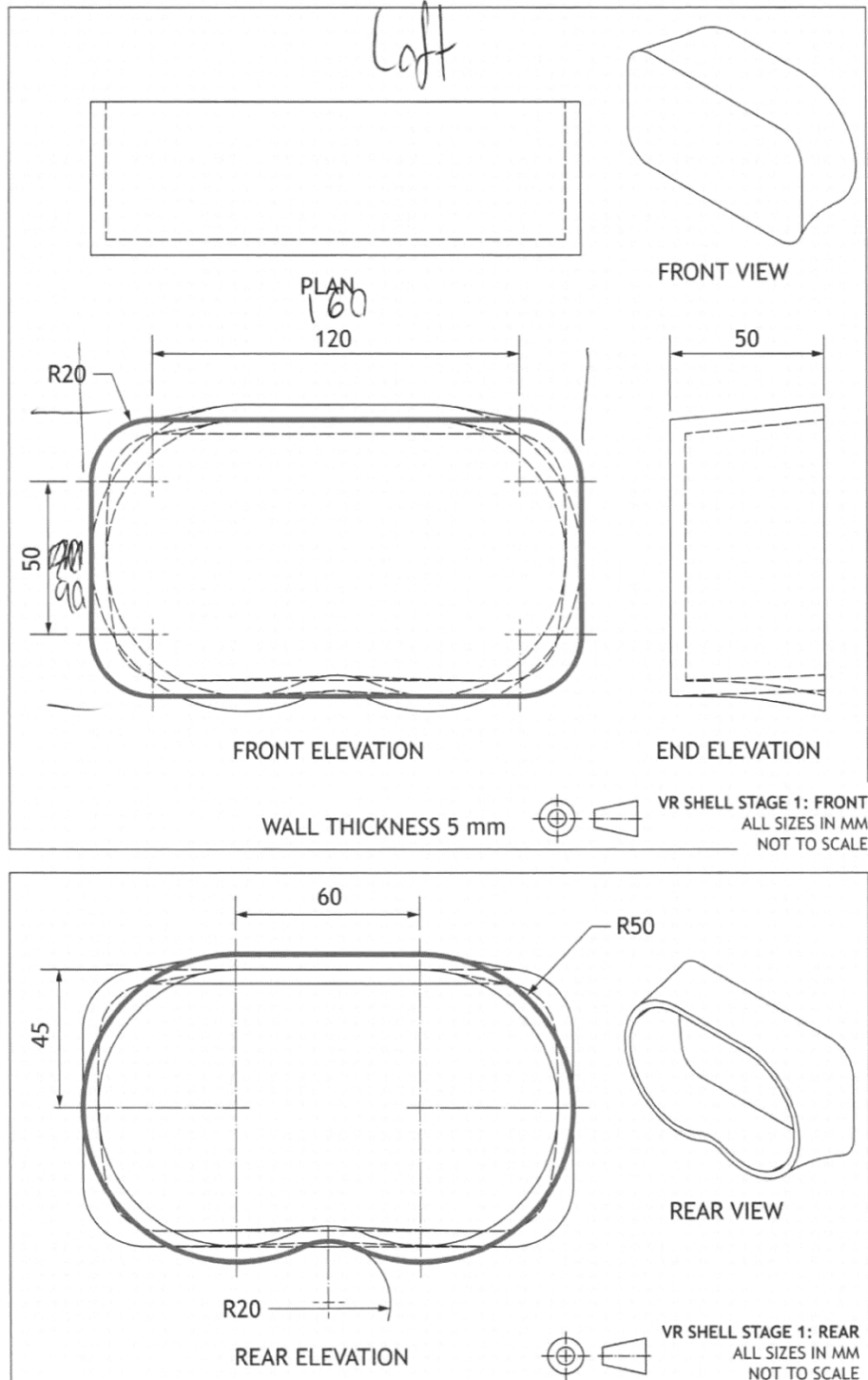
- (ii) State the name of the type of section shown at C.

1

revolved Section

2. (continued)

Two drawings of stage 1 of the VR headset are shown below. The drawing at the top is an orthographic showing the front elevation, end elevation and plan. The second drawing is also of stage 1 of the VR headset shown from the rear to make the profile easier to see.



2. (continued)

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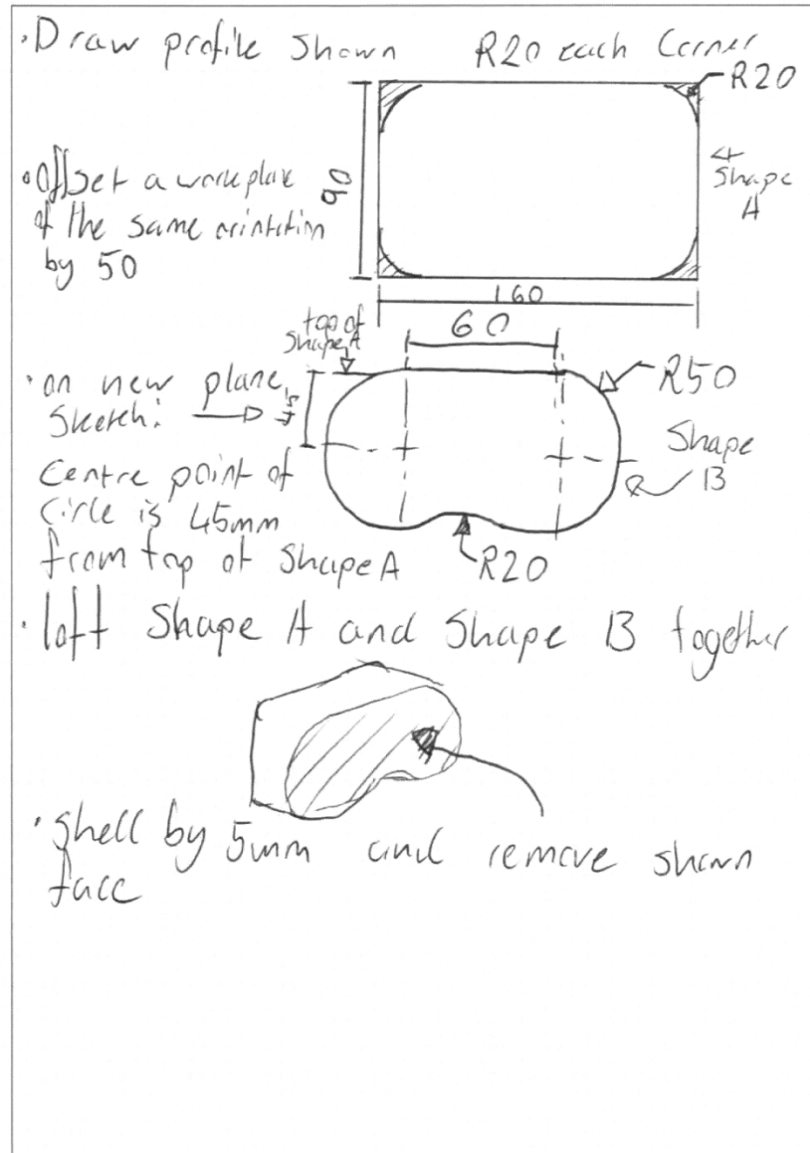
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- (d) (i) Describe the 3D CAD modelling techniques used to create stage 1 of the VR headset component, shown in the drawings opposite.

You must reference the dimensions in the drawing of the front and rear of the VR headset, shown opposite.

You may use sketches to support your answer.

5

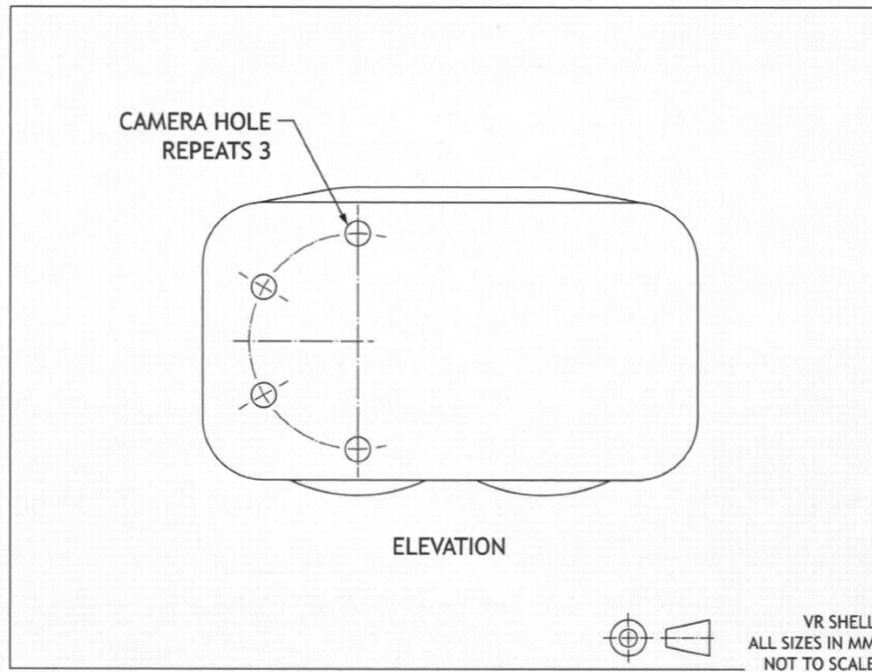


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2. (d) (continued)

In stage 2, a series of camera holes were added to the VR headset.



- (ii) State the name of the 2D CAD command used to create the repeated feature in the drawing above.

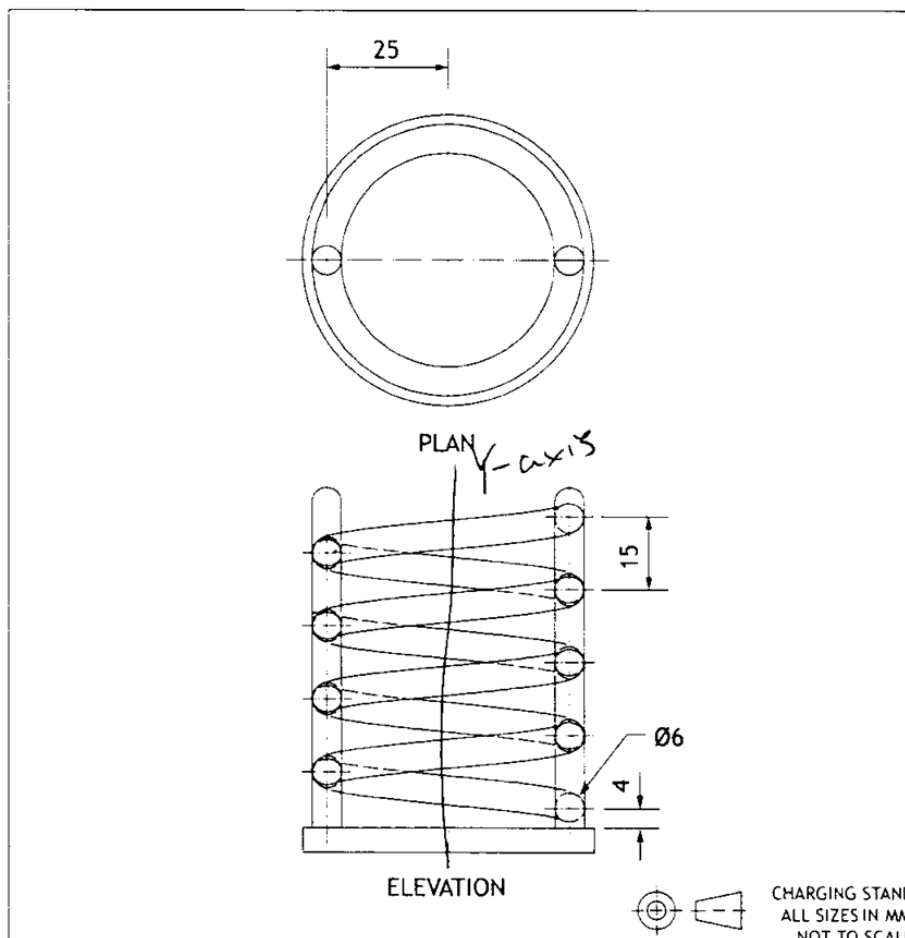
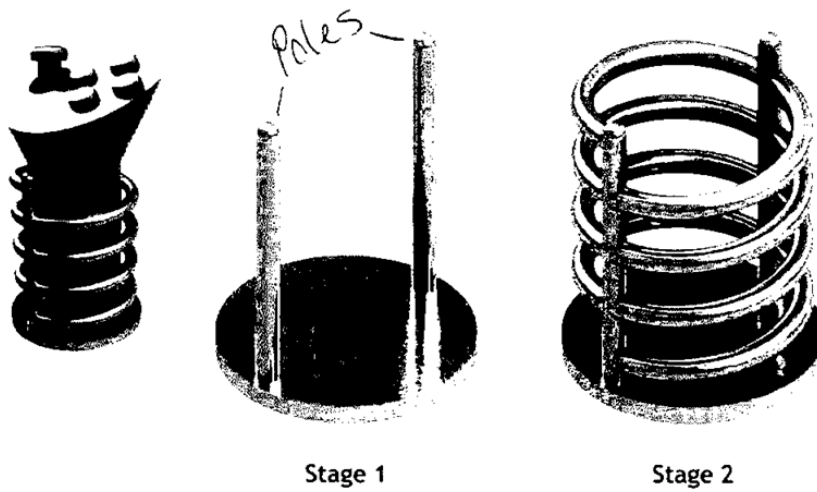
1

radial array

2. (continued)

A prototype for a VR controller charging stand is shown below.

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2. (continued)

- (e) Describe the 3D CAD modelling techniques used to add the feature in Stage 2 of the prototype controller charging stand, shown opposite.

You must reference the dimensions in the drawing.

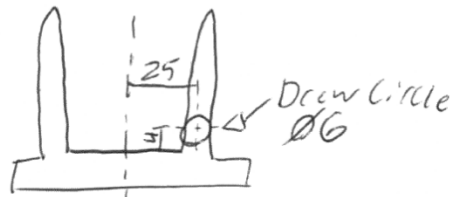
You may use sketches to support your answer.

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3

on a plane which bisects the poles:
draw shown ~~section~~ profile



Helix profile 4 revolutions with a
pitch of 15, do so on the
Y-axis

2. (continued)

The tech company hires freelance CAD technicians to create 3D models. They all use different CAD software.

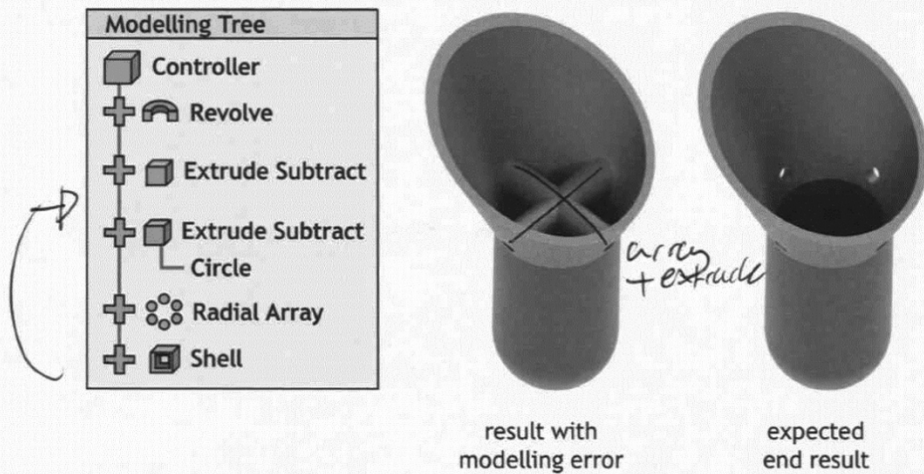
- (f) (i) State a suitable file format the CAD technicians can use to share models. 1

Step

- (ii) Explain why using this file format is beneficial to the CAD technicians. 1

Step files are the universal cad file accepted by most programs.

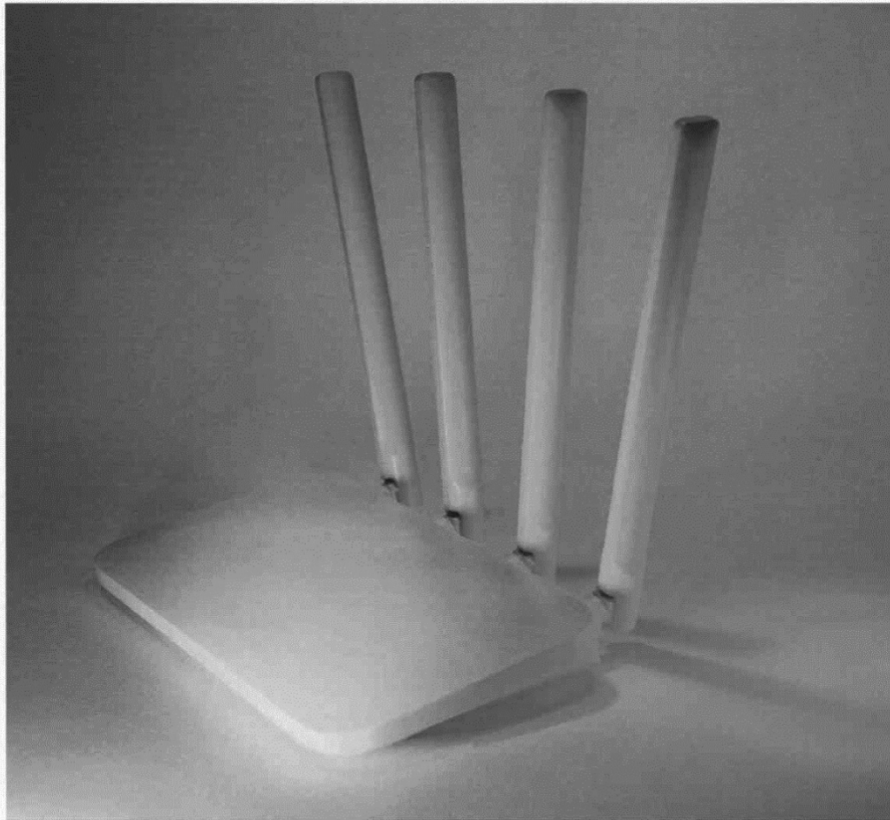
An error was made during the controller modelling process.



- (g) Describe the change that needs to be made to the modelling tree to fix the error and achieve the expected end result. 1

move the shell to before the array and
second extrude subtract

3. A wireless router is being developed using CAD.



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3. (continued)

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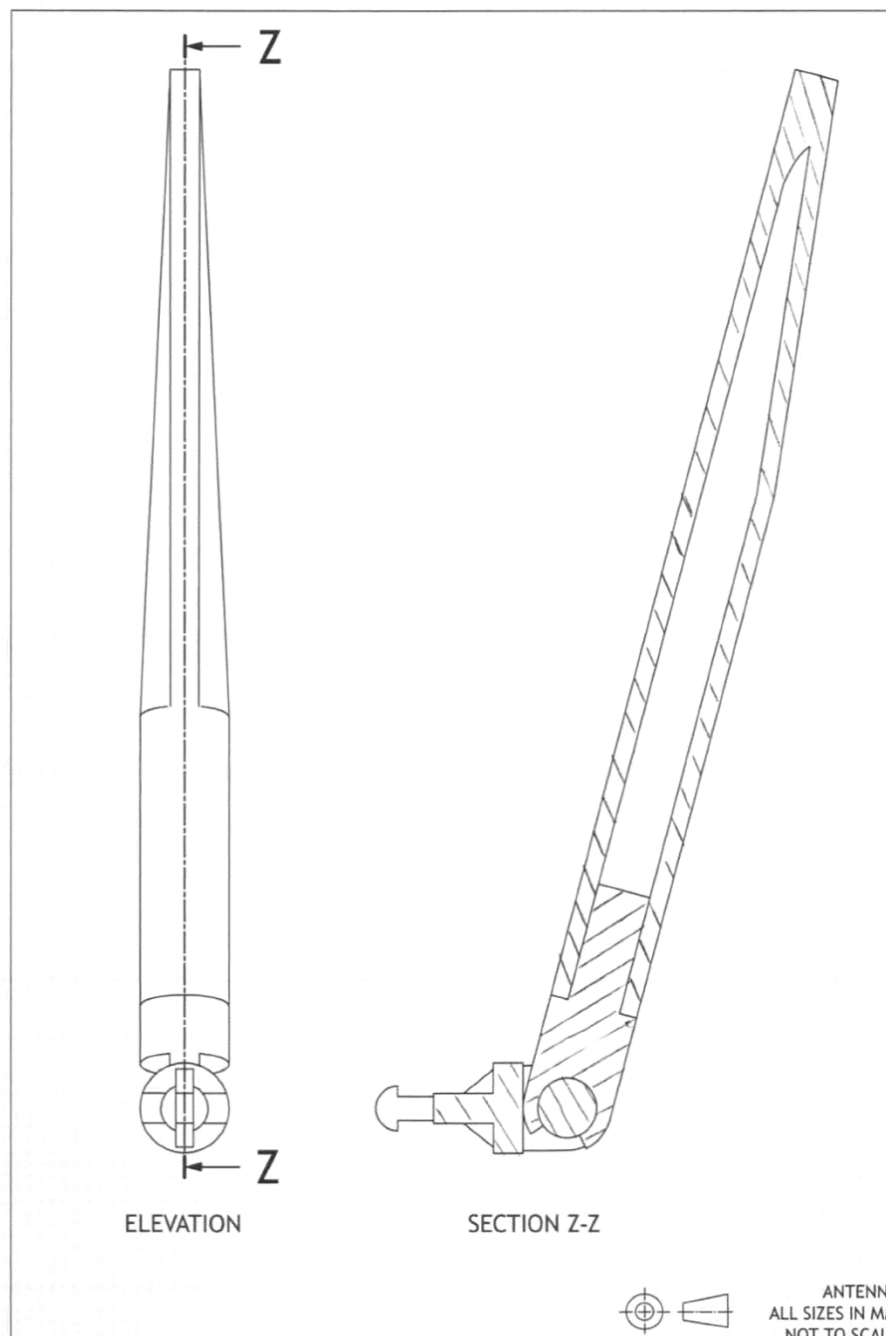
An incomplete sectional view of the wireless router antenna is shown below.

- (a) Complete the sectional view by adding appropriate hatching.

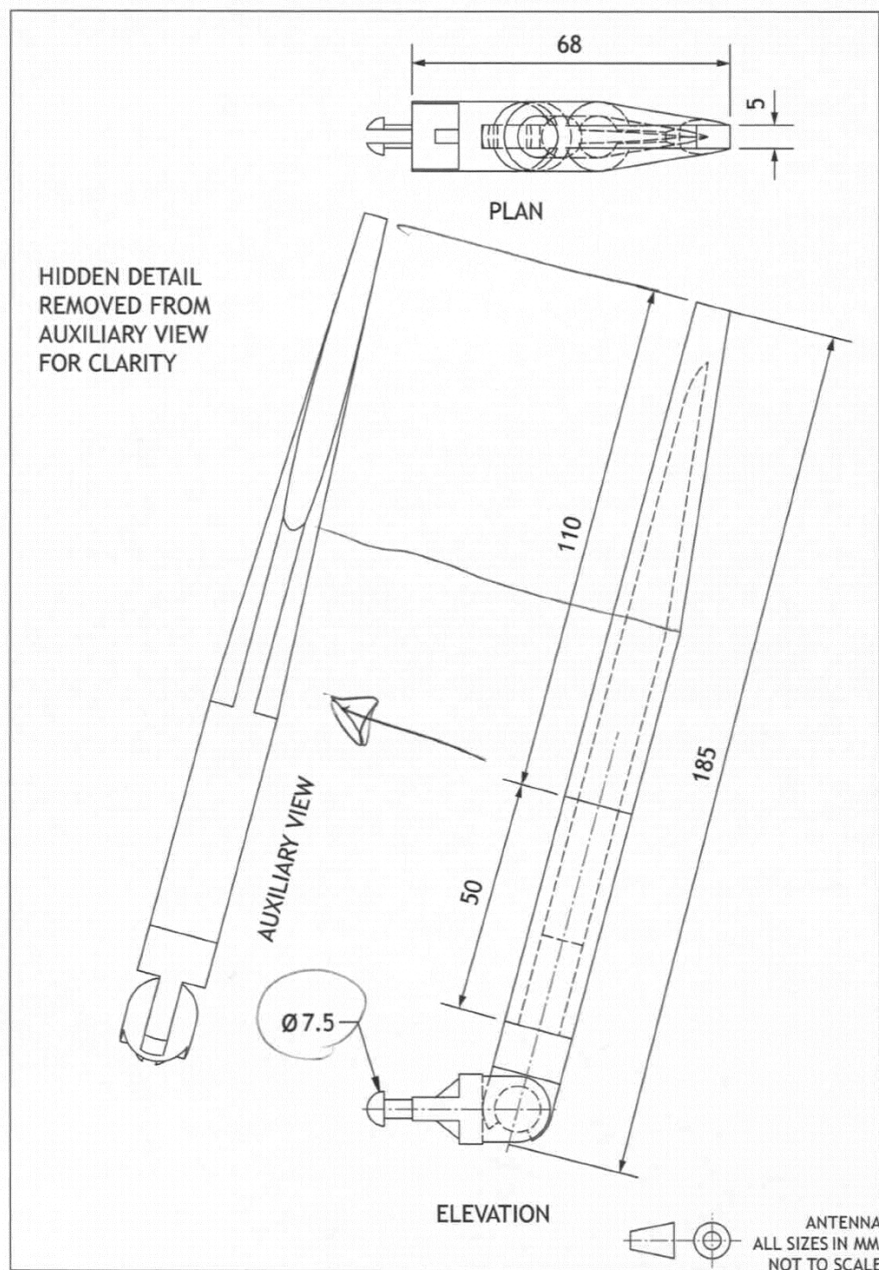
Use the information provided on **supplementary sheet 4**.

4

(Additional graphics, if required, can be found on *page 36*.)



3. (continued)

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3. (continued)

(b) Identify **three** errors which are not correct to British Standard conventions in the drawing of the antenna, shown opposite.

3

1. lack of ~~an~~ Centre lines in plan

2. $\phi 7.5$ should be $R15$ as it is not a circle.

3 ~~1000~~

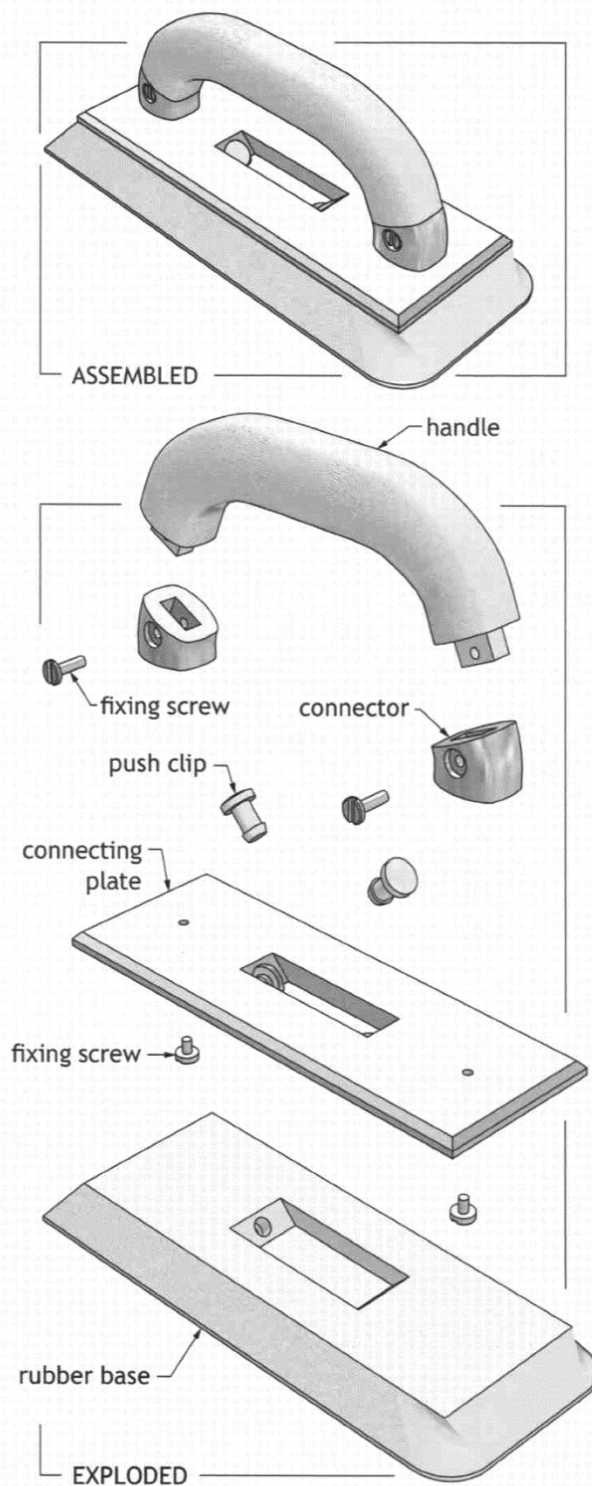
3 ~~xxx~~
~~Waffling~~ ~~directing~~ ~~project~~ ~~to the~~ ~~group~~

3/ Item length in plan, should be totaled in our view or elevation, as the plan gives us the length of the slanted shape.

[Turn over

4. A tiling company has produced the assembled and exploded view of a grout float shown below.

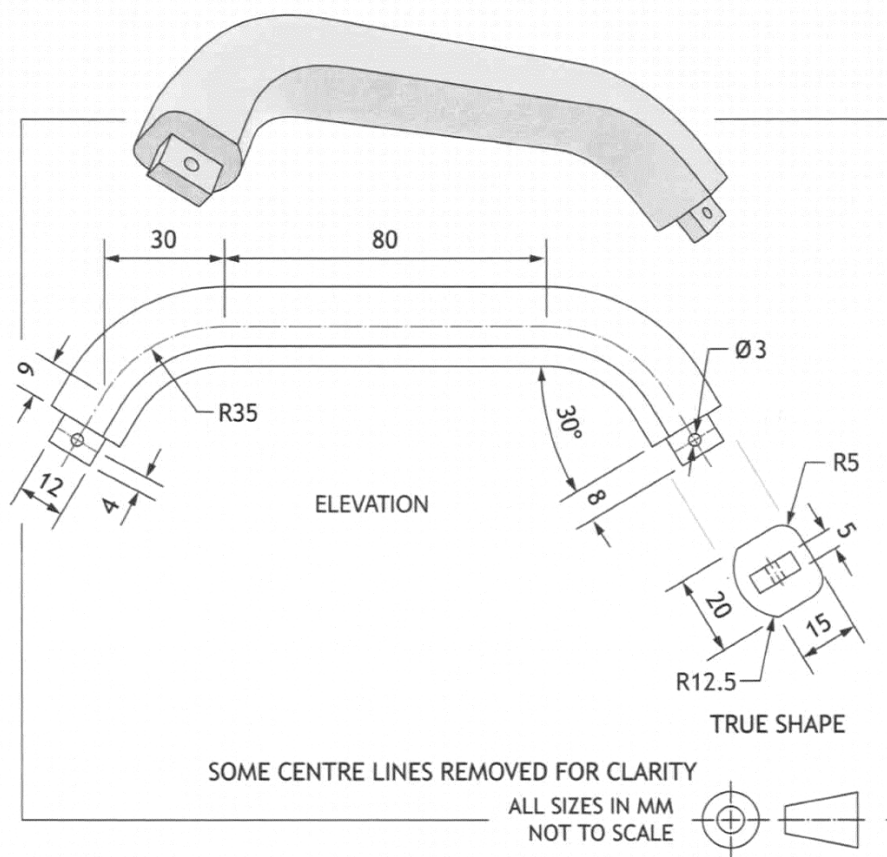
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4. (continued)			
(a) (i)	Describe two examples of good practice in the exploded view.	2	
	<u>· Clear white space between parts</u> <u>· all parts are moved in direction of</u> <u>realistic assembly</u>		
(a) (ii)	Describe, giving two examples, the purpose of an exploded view.	2	
	<u>· Shows how an object is assembled</u> <u>· Shows what parts are needed and</u> <u>How many of each part.</u> <u>how</u>		

4. (continued)

An orthographic drawing of the handle component is shown below.



4. (continued)

- (b) Describe the 3D CAD modelling techniques used to model the handle component, shown opposite.

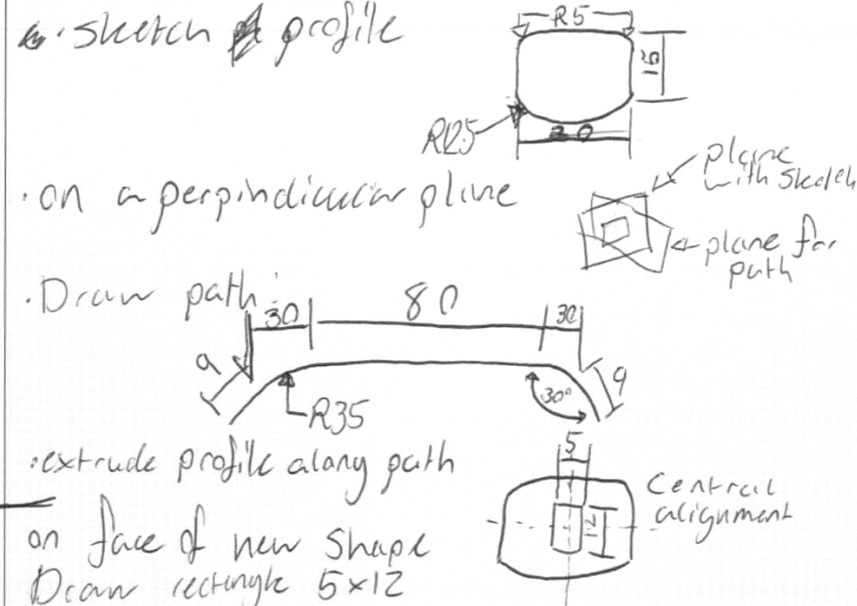
You must refer to the dimensions given in the drawing.

You may use sketches to support your answer.

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5

• sketch profile



• on a perpendicular plane

• Draw path

• extrude profile along path

on face of new shape
Draw rectangle 5x12

• extrude rectangle by 8

on largest side sketch $\varnothing 3$ circle on centre

• extrude subtract the circle by 5

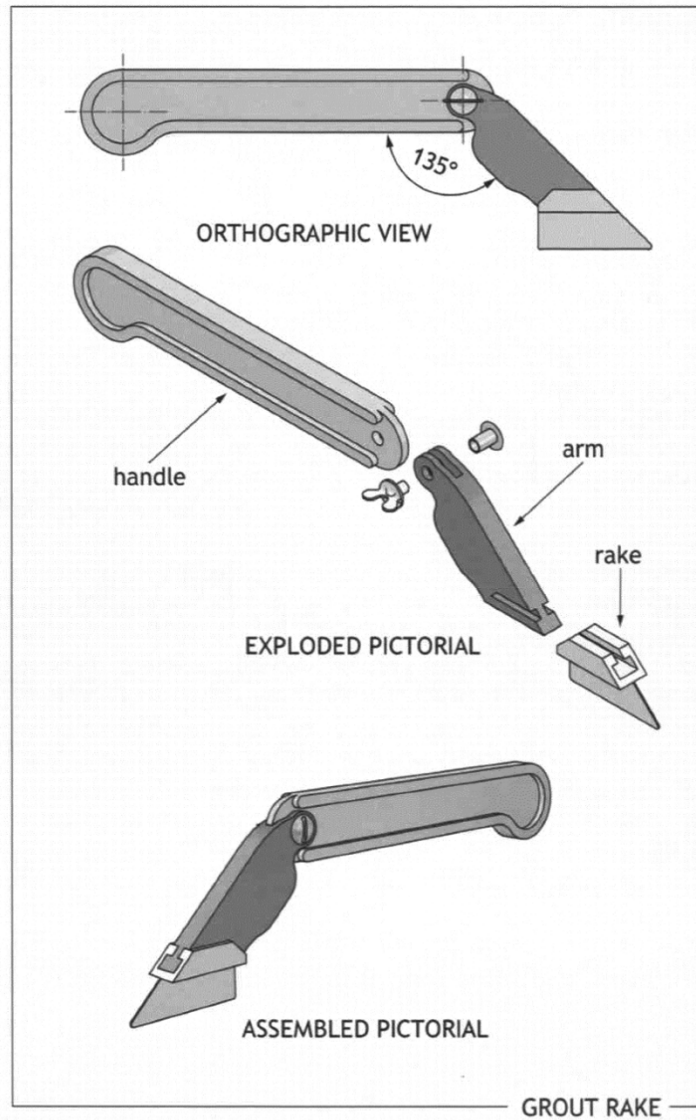
• repeat steps shown on opposite side

repeat for other side

plane with sketch
plane for path
Central alignment

4. (continued)

Graphics for a grout rake are shown below.



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4. (continued)

MARKS

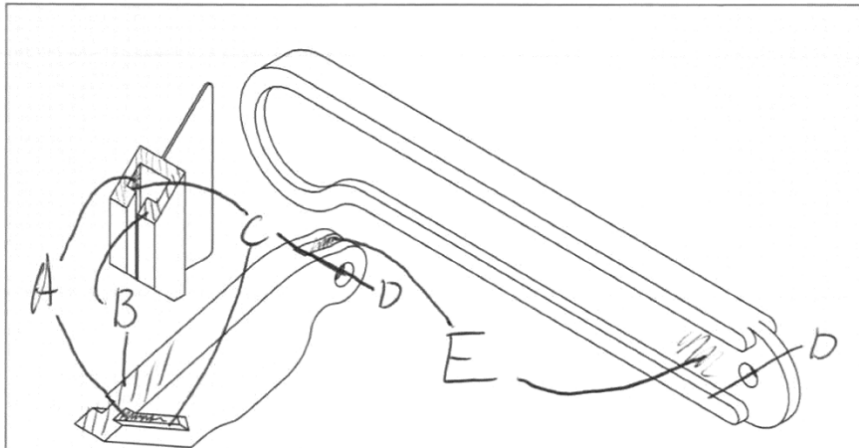
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- (c) Describe, using 3D CAD terms, how to constrain the three grout rake components, shown below.

You must constrain the arm and rake at a 135° angle to each other, as shown opposite.

You may annotate the drawings and use sketches to support your answer.

4



A / mate faces shown

B / align hatched faces

C / mate faces shown (rakes inner face)

D / Center constrain handle and arm on shown axis

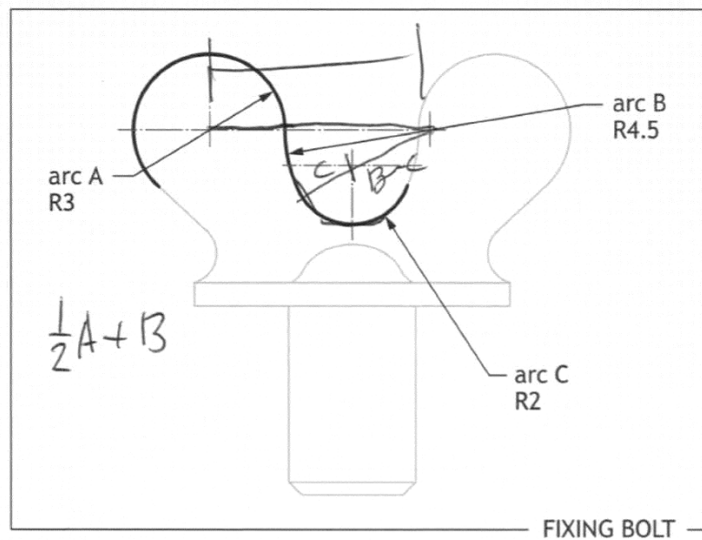
E / mate faces shown

F Angular constrain two parts like shown below (top of rake to top of handle)



4. (continued)

The fixing bolt component was modelled using tangency.



(d) Using the principles of tangency:

- (i) calculate the distance from the centre of arc A to the centre of arc B

1

6

- (ii) calculate the distance from the centre of arc B to the centre of arc C.

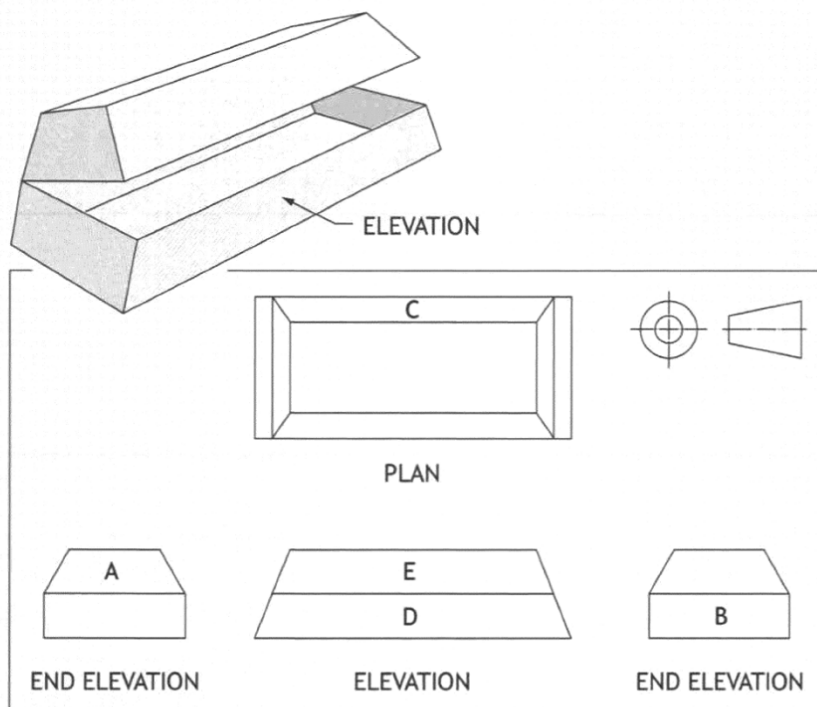
1

2.5

4. (continued)

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Graphics for proposed packaging for the grout rake are shown below.

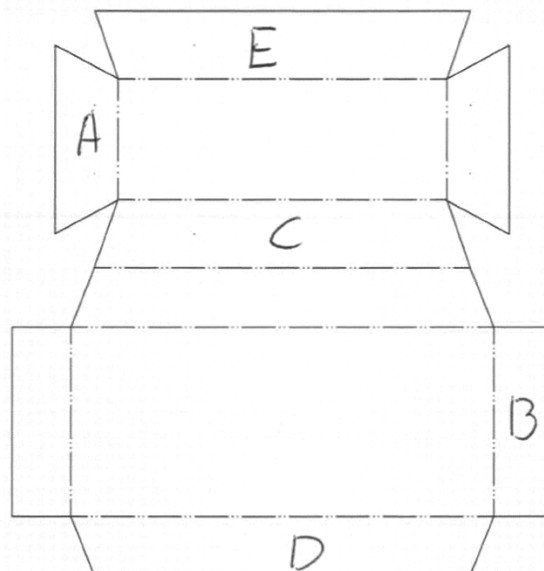


- (e) Identify the position of faces A–E on the surface development below.

The surface development is shown from the outside.

(An additional graphic, if required, can be found on *page 37*.)

5



4. (continued)

Illustrations of the grout rake are shown below.

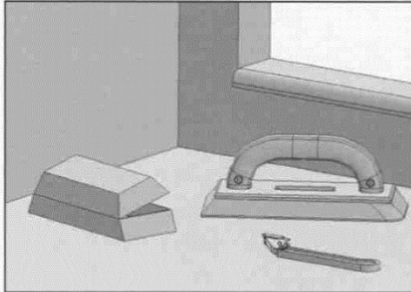


Illustration 1

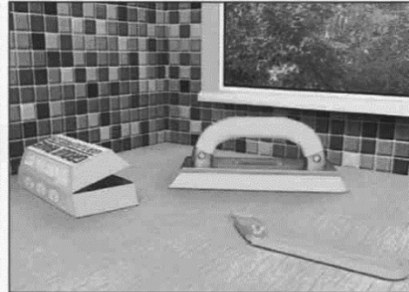


Illustration 2

- (f) Describe two 3D rendering techniques applied to produce the graphic shown in Illustration 2.

2

• Materials were added to the parts
 • Lighting was added to the environment

- (g) Describe, giving two examples, how the use of a sited environment can improve an illustration.

2

• allows the designer to see how ^{the part} ~~it~~ would ~~be~~ look in a ~~real~~ realistic environment.
 • allows the fully rendered image to be used in promotional graphics.

5. A flyer for a soap company is shown below.

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(i) →

© SaranteSoaps 2025 ← (ii)

**SCOTLAND'S NUMBER 1
SOAP & CLEANING SUPPLIER**

SARANTE SOAPS

OUR PRODUCTS

(iii) → **W**hether you shop online or shop in store, you'll find a fantastic range of products to suit your cleaning needs. All of our products are manufactured using sustainable material.

- Organic soaps
- Bath bombs
- Citrus cleaners
- Stain removers
- Industrial bleaches
- Artisan soaps
- Odour removers
- Un-perfumed soaps
- Vegan products

OUR SERVICES

We offer a varied range of services for homes and business. Using our online booking system you can specify which services you require, and the frequency of visits. Our team of expert cleaners can keep your home or work environment looking its best all year round. For more information, visit our website, or contact our offices directly using the details below.

(iv) →

Text 1 →

Text 2 →

MAIN PERTH DEPOT

ADDRESS

Warehouse 72
North Cairn Street
Perth, Scotland

T: 02983 2228891
E: sa.soaps@enq.uk
W: www.sasoaps.co.uk

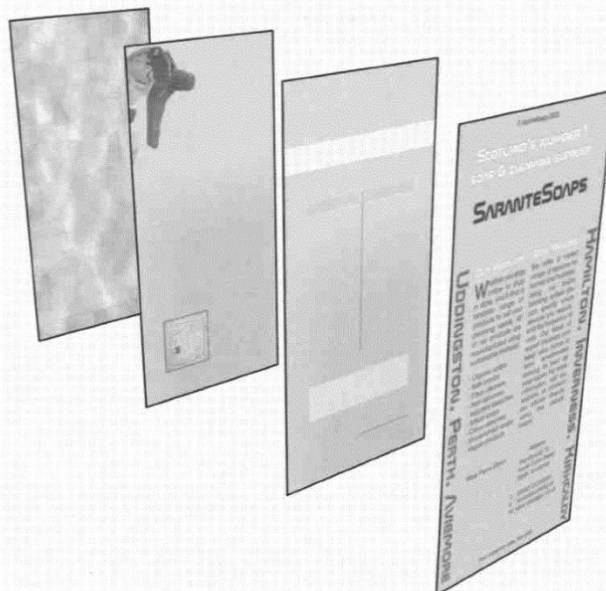
Flyer distribution date: May 2025

(v) →

		MARKS	DO NOT WRITE IN THIS MARGIN
5. (continued)			
(a) State the name of the desktop publishing symbols and techniques labelled on the flyer shown opposite.			
(i)	registration mark	1	
(ii)	water mark	1	
(iii)	Drop cap	1	
(iv)	line	1	
(v)	Crop marks	1	
(b) State the two different types of text justification labelled on the flyer shown opposite.		2	
Text 1	Fully Justified		
Text 2	Centrally Justified		
(c) Describe the benefit of using the desktop publishing technique bleed in the flyer.		1	
makes the graphic more visually interesting as it draws attention the the bleed graphic			

5. (continued)

The layout was produced using layers in DTP software.



- (d) Describe **two** advantages to the graphic designer of using layers to produce the layout.

2

- allows the designer to see what the graphic would look like without ~~all~~ certain layers.
- allows the designer to edit individual layers.

The images used on the flyer were photographed by the company's graphic designer.

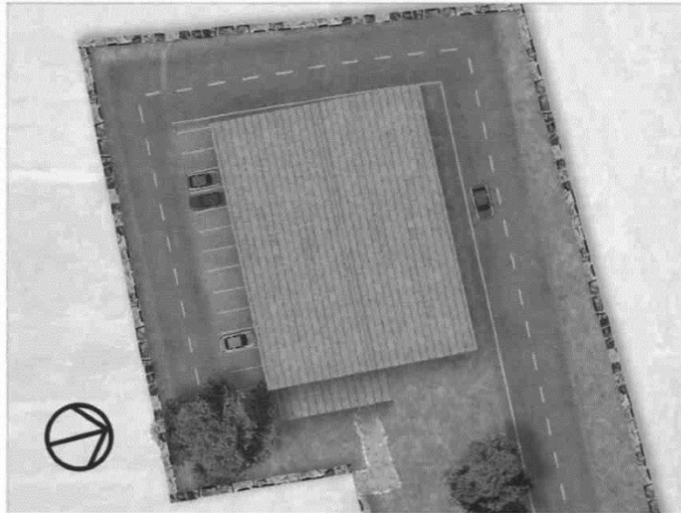
- (e) Describe **two** benefits to the soap company of using images created by staff, rather than using stock images.

2

- Stock images cost money so they save money by using their own images.
- the images they made will always meet the desired criteria

5. (continued)

A CAD technician produced a site plan of the soap company's main depot.



site plan

- (g) Describe, giving four examples, the information that the site plan communicates about the depot.

4

- How it interacts with the road.
- Where the entrance(s) may be located.
- areas where trees/plants may be
- areas for parking cars

5. (continued)

A floor plan of the main depot was also produced. The graphic featured a range of British Standard symbols. Two are shown below.



symbol A



symbol B

(h) State the name of symbols A and B.

2

(i) Symbol A radiator

Symbol B WC

(ii) Describe, giving **two** examples, how a CAD library would be useful for the CAD technician when producing the floor plan.

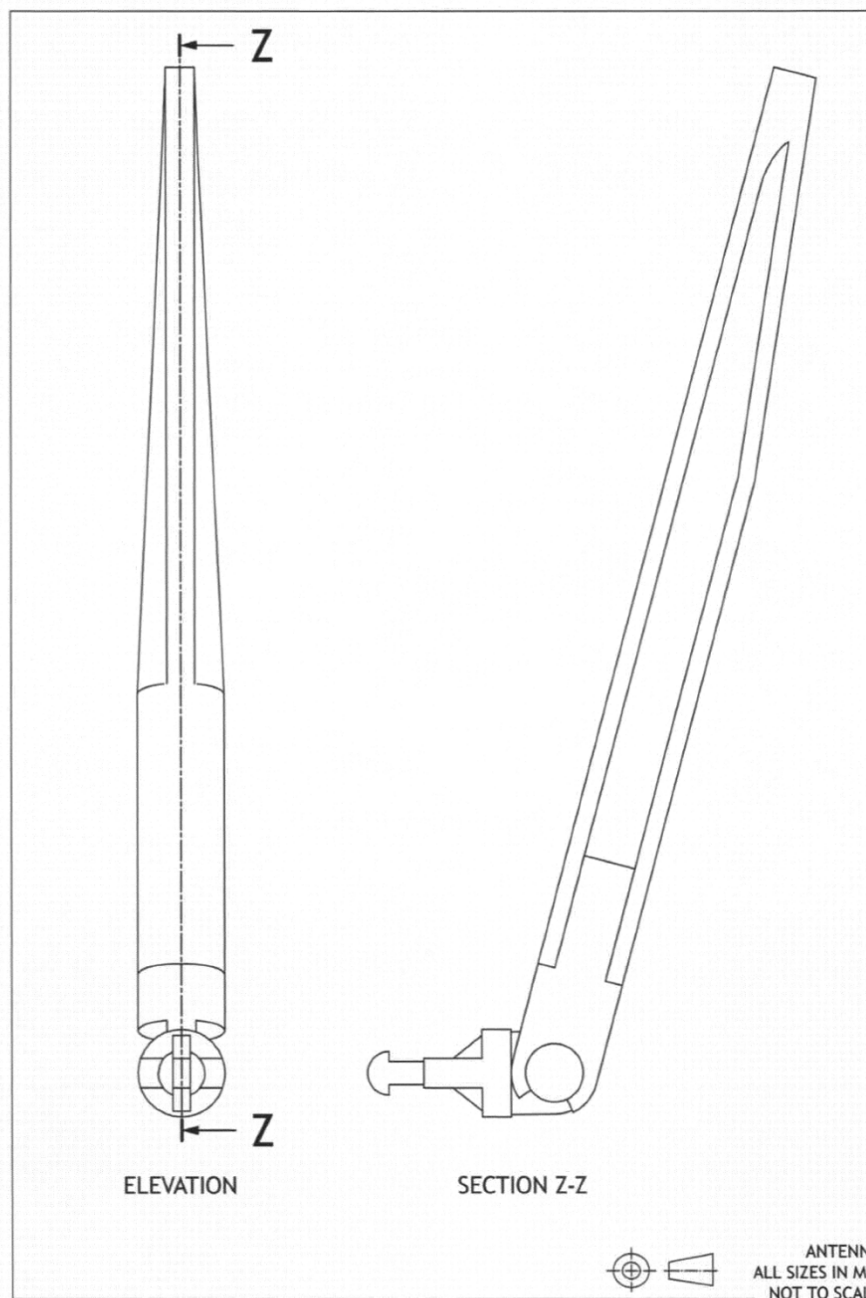
2

All Parts will be to BSI Standards
It will save the technician time
as they ~~don't~~ won't need to sketch
each symbol manually.

ADDITIONAL SPACE FOR ANSWERS

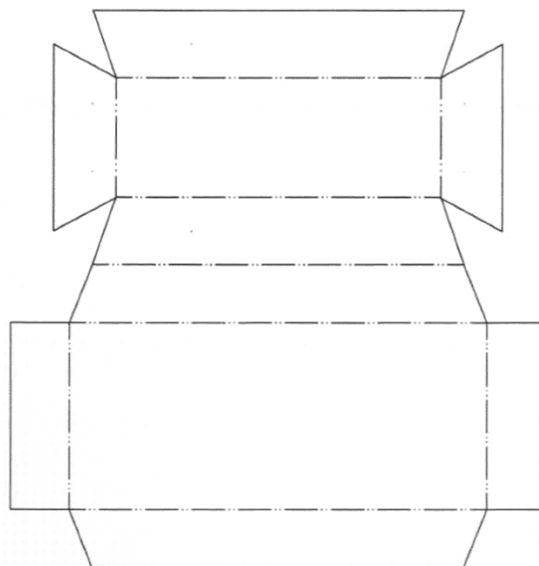
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Additional graphics for question 3 (a)



ADDITIONAL SPACE FOR ANSWERS

Additional graphic for question 4 (e)



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ADDITIONAL SPACE FOR ANSWERS

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1 C/ ~~ex~~ Semi-circle uses value as the closer to text parts are lower value, circle is on the right of the page.

1 J/ Emphasis
the red text for the pull quote of page two contrasting with the background creates emphasis, the text wrap around the quote and placing it centrally also creates emphasis.