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FOR OFFICIAL USE

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1330/403

NATIONAL QUALIFICATIONS
2011

TUESDAY, 17 MAY
1.00 PM – 2.45 PM

GRAPHIC COMMUNICATION
STANDARD GRADE
Credit Level

Fill in these boxes and read what is printed below.

Full name of centre				Town			
<input type="text"/>				<input type="text"/>			
Forename(s)				Surname			
<input type="text"/>				<input type="text"/>			
Date of birth							
Day	Month	Year	Scottish candidate number				Number of seat
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1 110 marks are allocated to this paper: 40 marks for Knowledge and Interpretation
70 marks for Drawing Abilities

- 2 Answer all questions.
- 3 Read each question carefully before you answer.
- 4 Written answers may be in **ink** or **pencil**.
- 5 Drawings and sketches **must be in pencil**.
- 6 Sketches need only be in line form—do not spend time rendering.
- 7 Dimensions are given in millimetres or as stated.
- 8 Orthographic drawings are in third angle projection.
- 9 For each question, the element being tested and the mark allocation are shown in brackets, eg (DA 5) means a question on Drawing Abilities worth 5 marks.
- 10 **At the end of the examination**

check that your name is on every sheet;
put the sheets in correct numerical order;
place this sheet on top of the others;
join all sheets together by **stapling** at the top left-hand corner;
before leaving the examination room, you must give these sheets to the invigilator (if you do not you may lose all the marks for this paper).

1		KI	DA
2			
3			
4			
5			
6			
7			
8			
9			
10			
Total Marks			



ACKNOWLEDGEMENT

Credit Level Question 1—Screenshot of Domus.cad. Permission is being sought from Interstudio S.r.l.

(a) Other than speed of production, describe **three** advantages that architects could find by using computers for their graphics needs compared with manual methods of drawing production.

- 1
-
- 2
-
- 3
-

KI 3

(b) Other than set-up costs, describe **two** things that could be a disadvantage of using a CAD system.

- 1
-
- 2
-

KI 2

(c) State the names of **two** types of plotter that could be used to obtain hard copies of drawings produced using a CAD package.

- 1
- 2

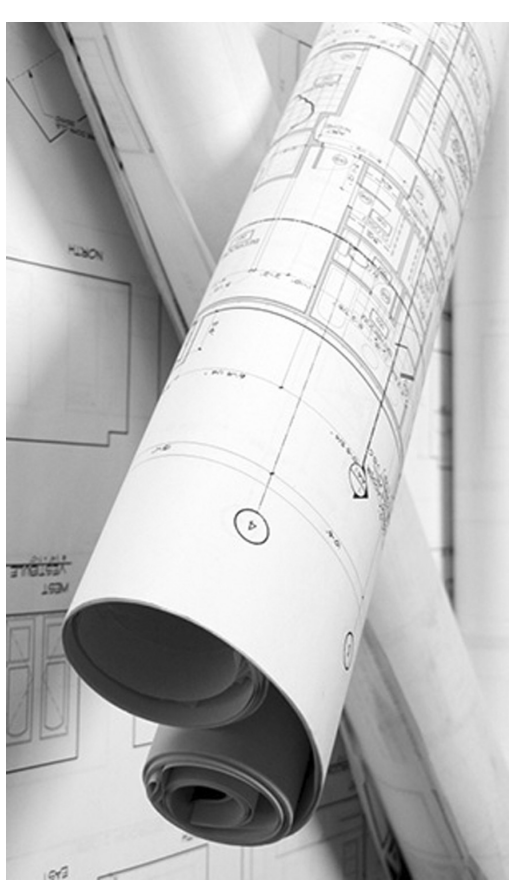
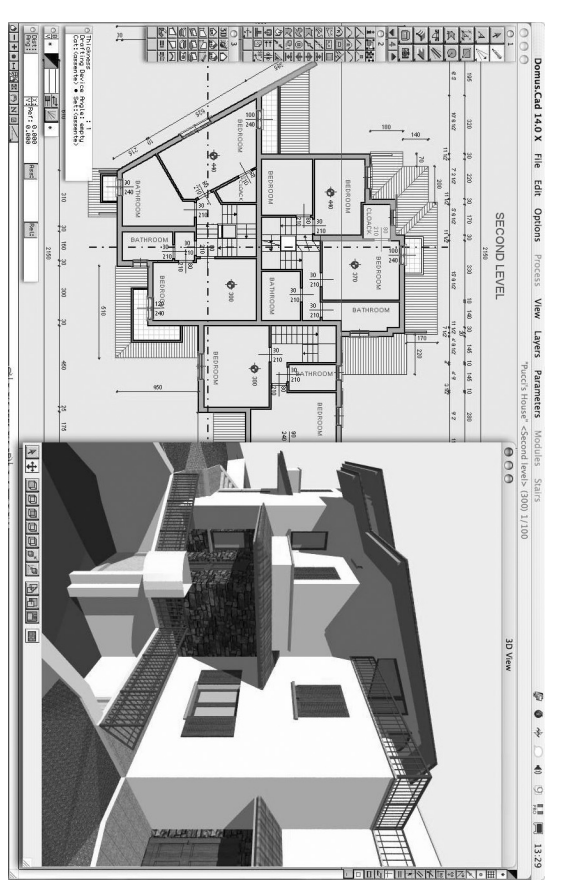
KI 2

(d) Other than a digital camera, state **two** devices that could be used to copy existing manual drawings to the computer's hard drive.

- 1
- 2

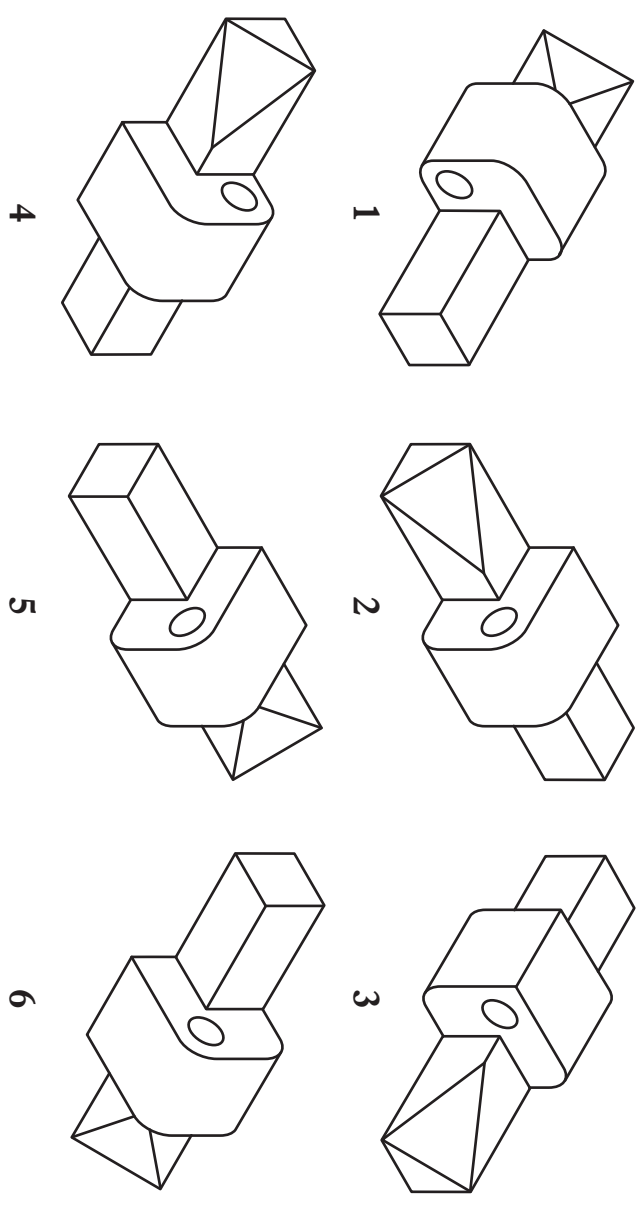
KI 2

Total (KI 9)



The elevation and end elevation of a component are shown in **Drawing X**.

(a) Six pictorial views are shown below.



State which **two** of these pictorial views of the component represent the views in **Drawing X**.

1 2 **KI 2**

(b) State the name given to the type of drawing shown in **Drawing X**.

Drawing X **KI 1**

(c) On the **ELEVATION** shown opposite, add the length and the height using the BS convention for dimensioning. **KI 2**

Total (KI 5)

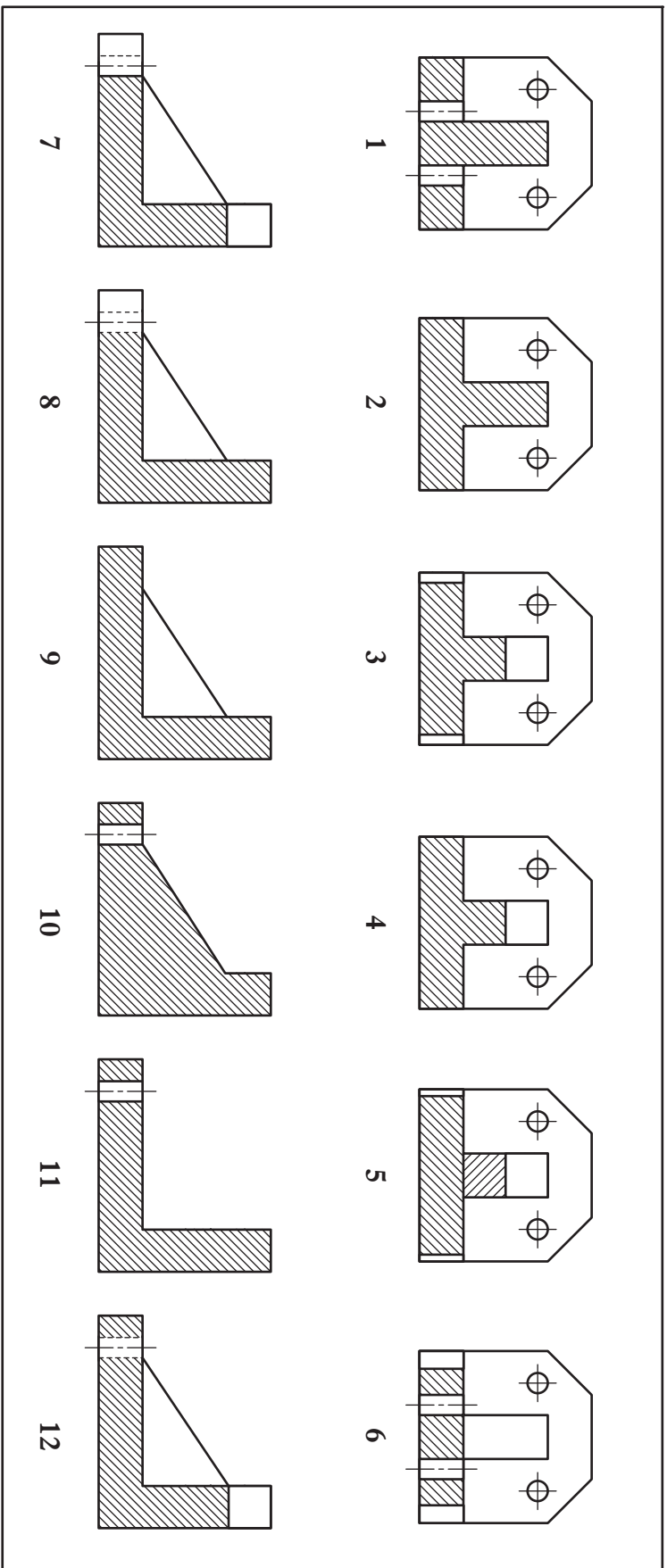
END ELEVATION

ELEVATION

DRAWING X

The elevation, end elevation and plan of a bracket are given in **Drawing Y**.

(a) Twelve sectional views 1 to 12 are given below (**Not to Scale**).



State which of these are the correct sections for **AA**, **BB**, **CC** and **DD**.

Section AA

Section BB

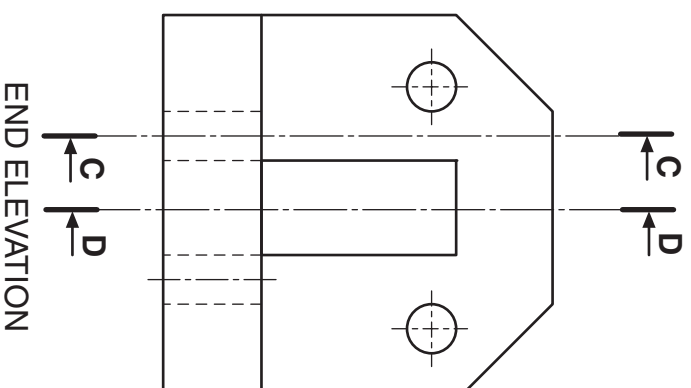
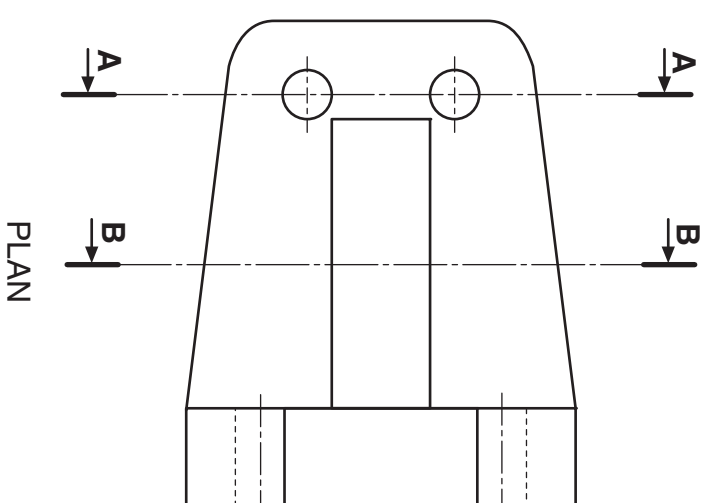
Section CC **Section DD** **KI 4**

(b) State **two** factors that affect the choice of scale when working on a production drawing.

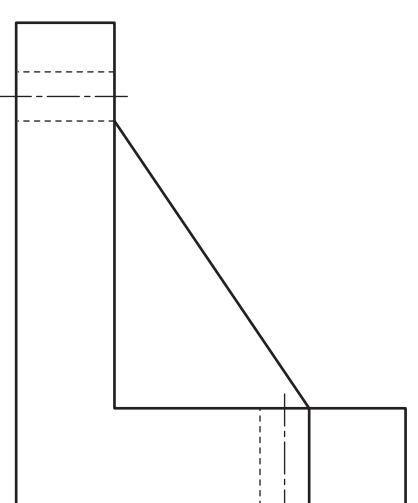
Answer 1

Answer 2 **KI 2**

Total (KI 6)



DRAWING Y ELEVATION



DRAWING Y

The following drawings are the results of applying twelve CAD commands. State the **single** CAD command used in each case.

1

COMMAND

2

COMMAND

3

COMMAND

4

COMMAND

5

COMMAND

6

COMMAND

7

COMMAND

8

COMMAND

9

COMMAND

10

COMMAND

11

COMMAND

12

COMMAND

Total (KI 12)

The graphics industry uses many different software packages and output devices.

(a) State the **type** of software package that would be used for the following.

(i) Producing a magazine article that contains both text and graphics.

.....

(ii) Producing a fully rendered graphic of a new car design.

.....

(iii) Producing a fully dimensioned working drawing.

..... **KI 3**

(b) State **two** output devices that could be used to obtain hard copies of a computer rendered graphic.

Device 1

Device 2 **KI 2**

(c) A computer-modelling package was used to produce **View X** opposite.

(i) State the name given to this type of computer-generated view.

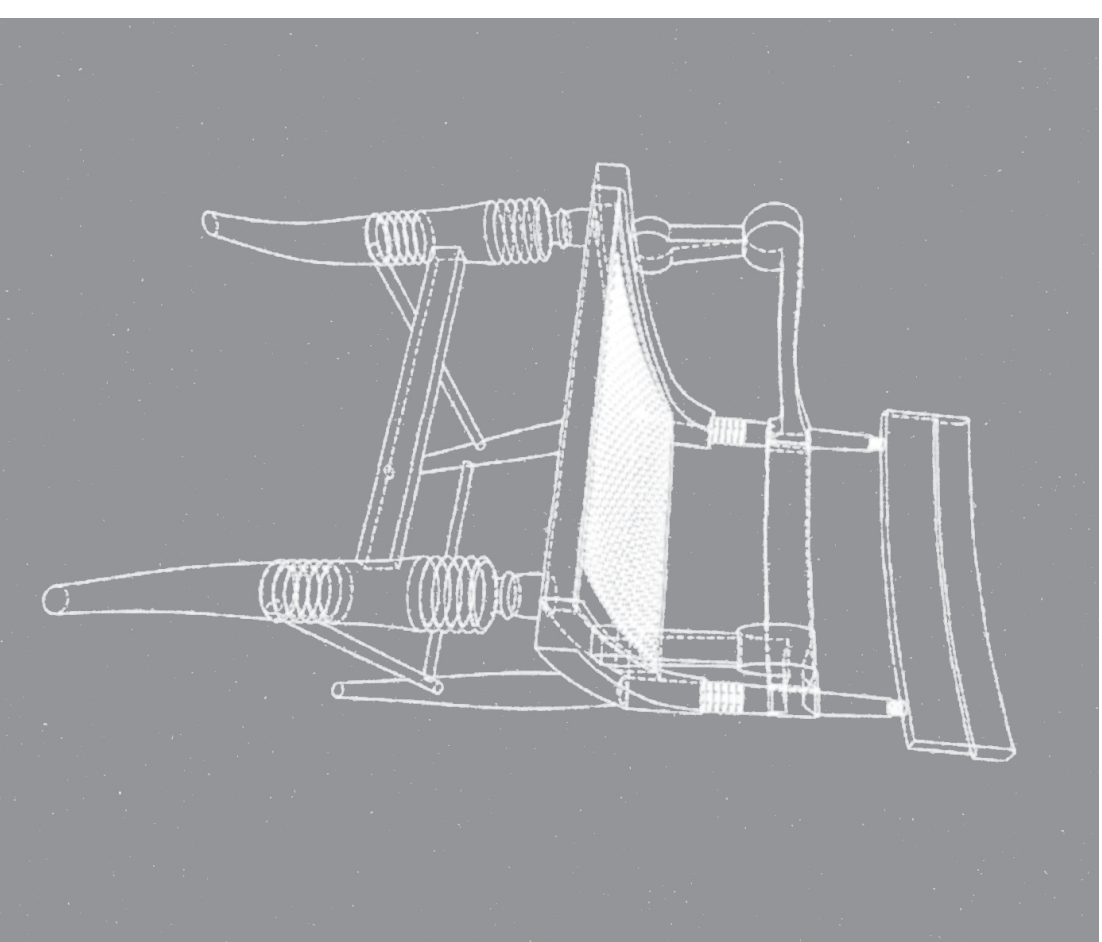
View X **KI 1**

(ii) State the names of **two** other types of computer-generated model.

1 **KI 2**

2

Total (KI 8)



VIEW X

6

An elevation of a toothbrush holder is given, a pictorial view is also shown.

Draw in the given positions:

(a) the plan;

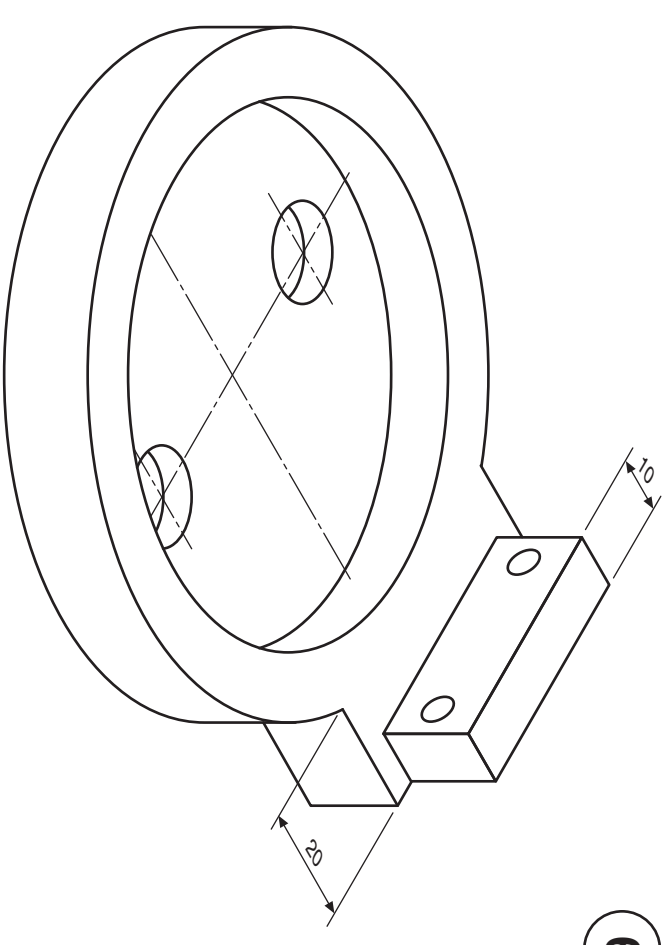
(b) the end elevation.

Show all hidden detail.

DA 6

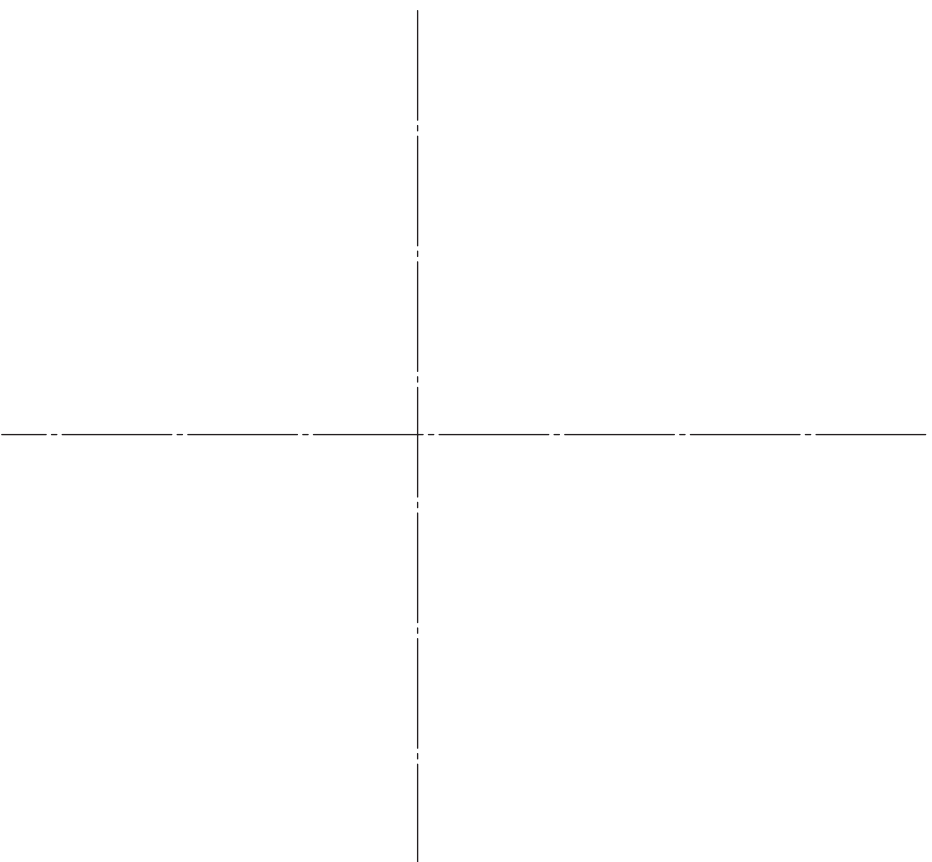
DA 5

Total (DA 11)

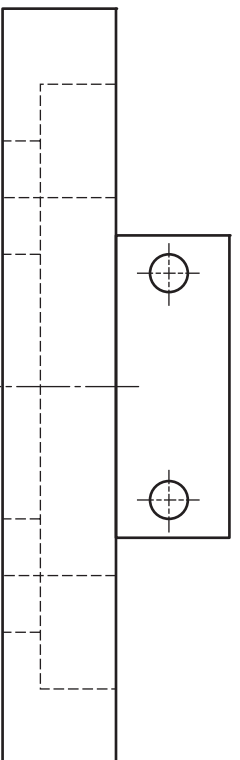


PICTORIAL VIEW

6



PLAN

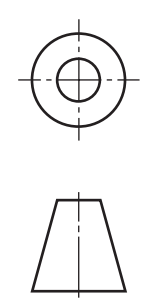


ELEVATION



END ELEVATION

[1330/403]



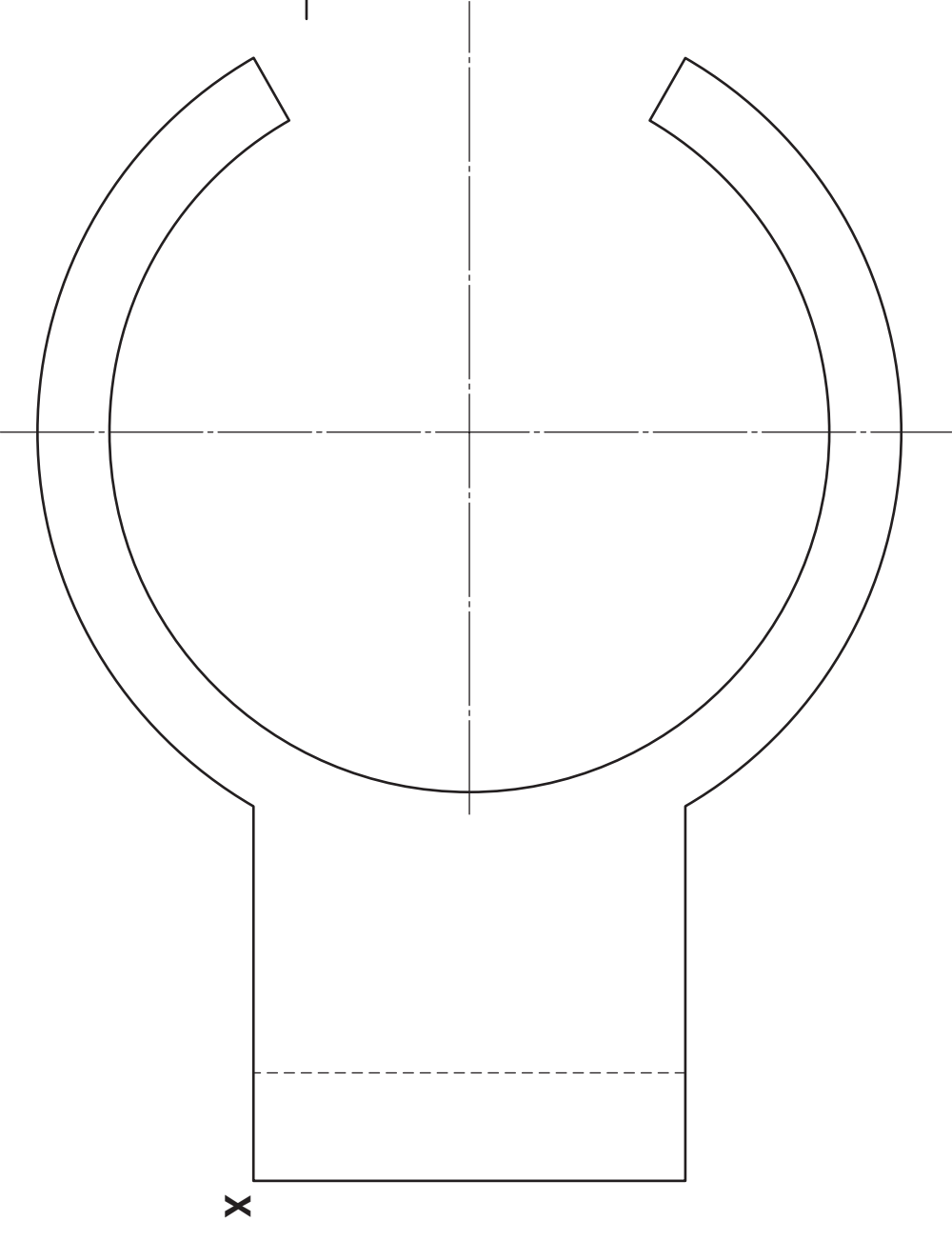
a	
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An elevation, plan and end elevation of the arm support from a crutch are given.

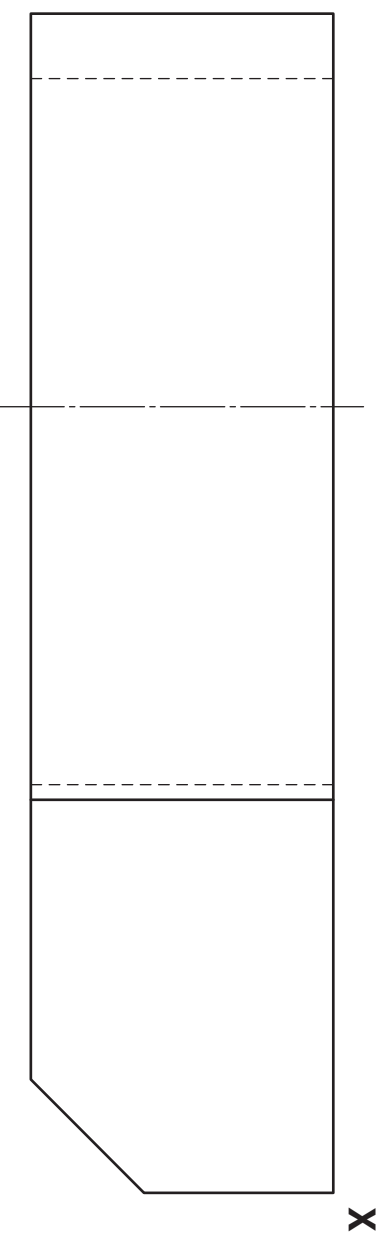
Draw an isometric view of the support using the given sizes and starting point X.

Do not show hidden detail.

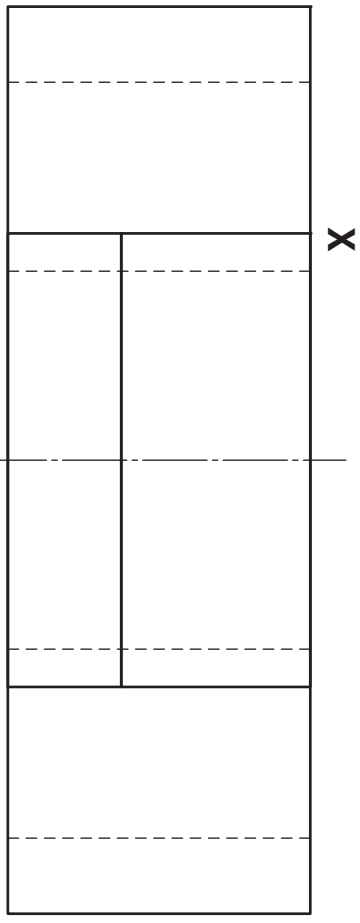
Total (DA 16)



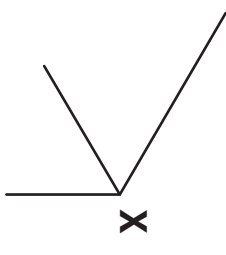
PLAN



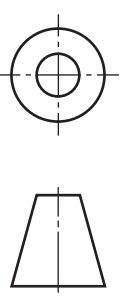
ELEVATION



END ELEVATION



a	
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A pictorial view of an oil can is shown, comprising of two parts, **A** and **B**. The plan and elevation are also given.

Draw:

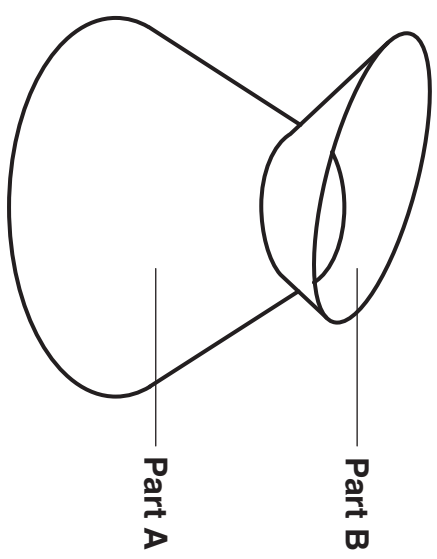
(a) the end elevation;

DA 7

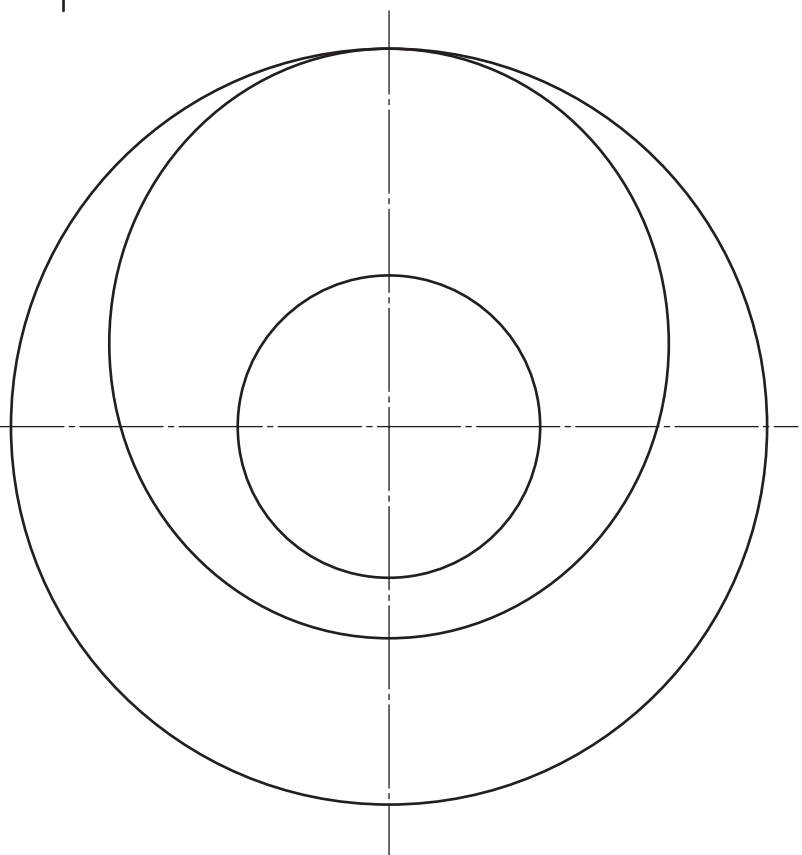
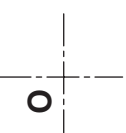
(b) the surface development of part **B**. (Using the given start **O**.)

DA 7

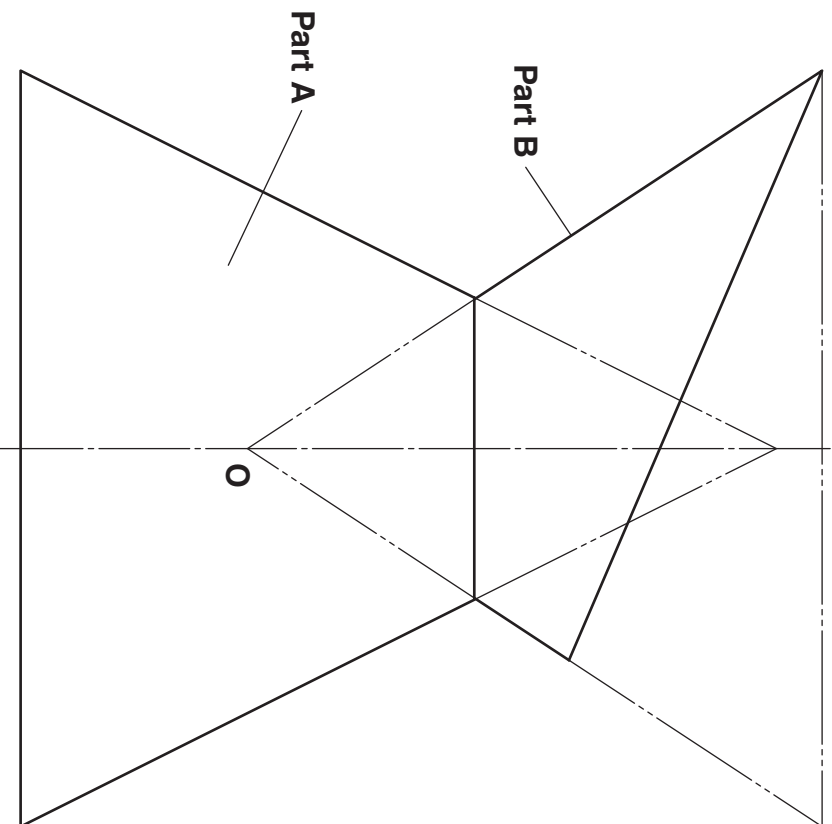
Total (DA 14)



PICTORIAL VIEW



PLAN



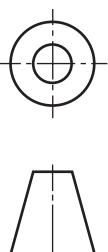
ELEVATION



END ELEVATION

SURFACE DEVELOPMENT

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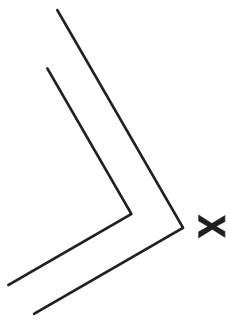
The elevation, end elevation and plan of a gym changing room are given.

Draw a planometric view of the changing room, using the given start X.

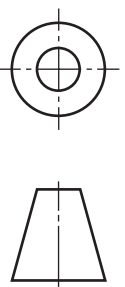
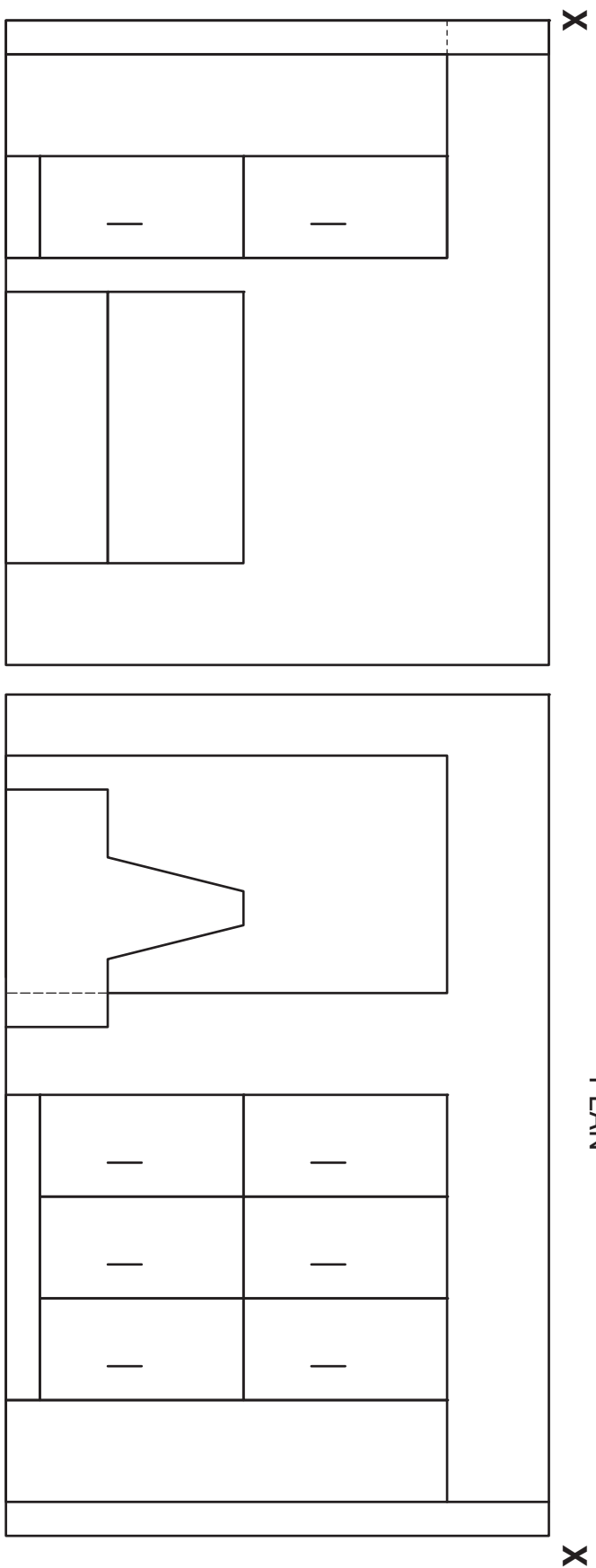
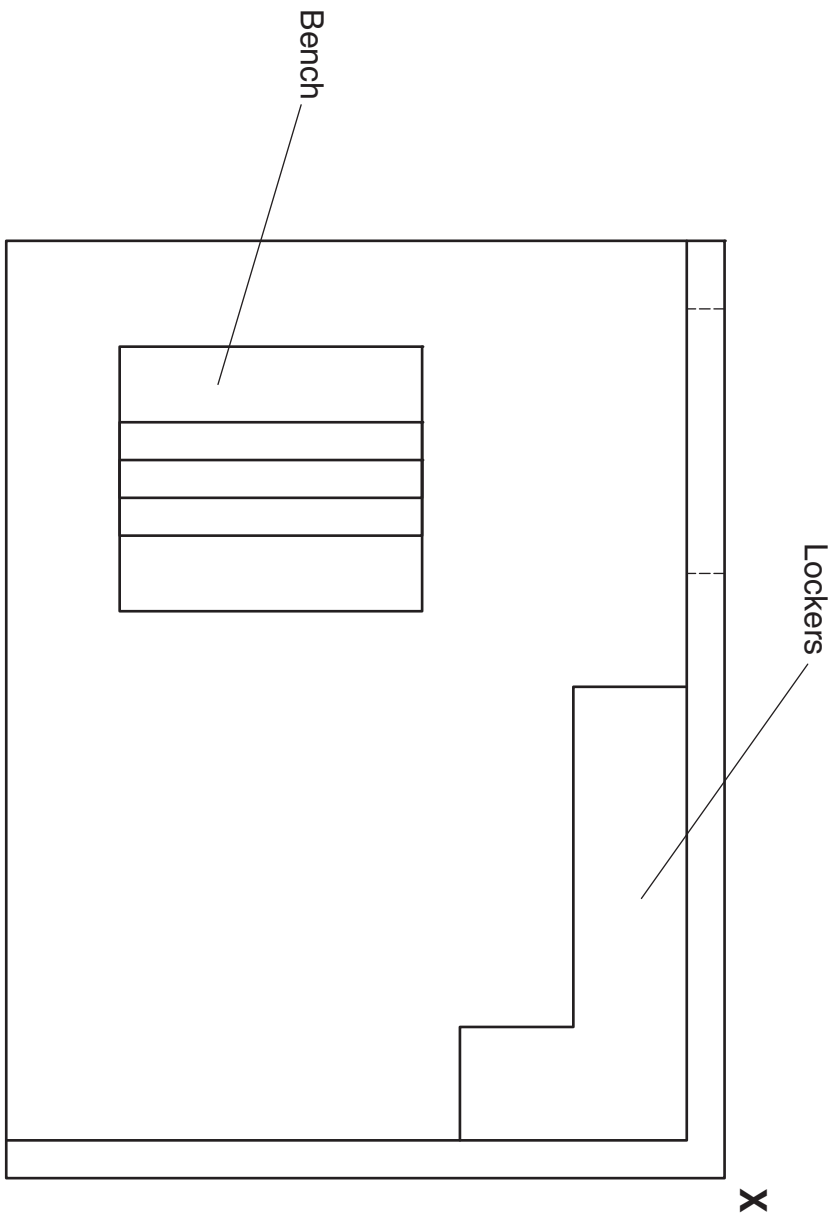
Take all sizes from the given views.

Do not show hidden detail.

Total (DA 13)



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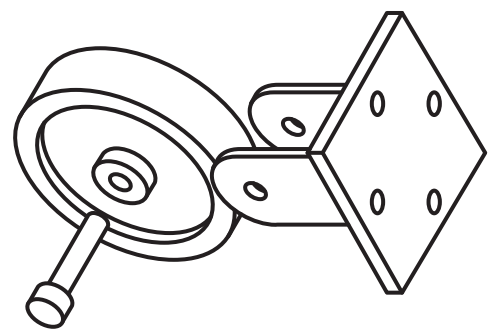


An exploded pictorial view of a caster wheel is shown. Detailed orthographic views of the components are also shown (**Not to Scale**).

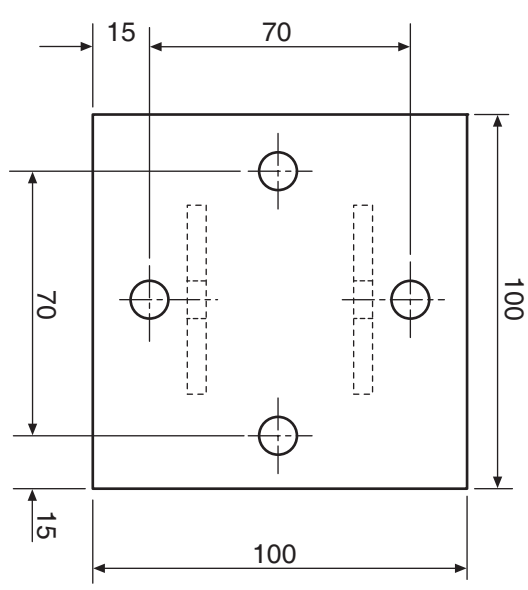
Draw in the positions given:

- (a) the complete elevation of the assembly;
(Show all hidden detail.)
- (b) the sectional end elevation on **X-X**.
(Do not show hidden detail.)

DA 4
DA 12
Total (DA 16)

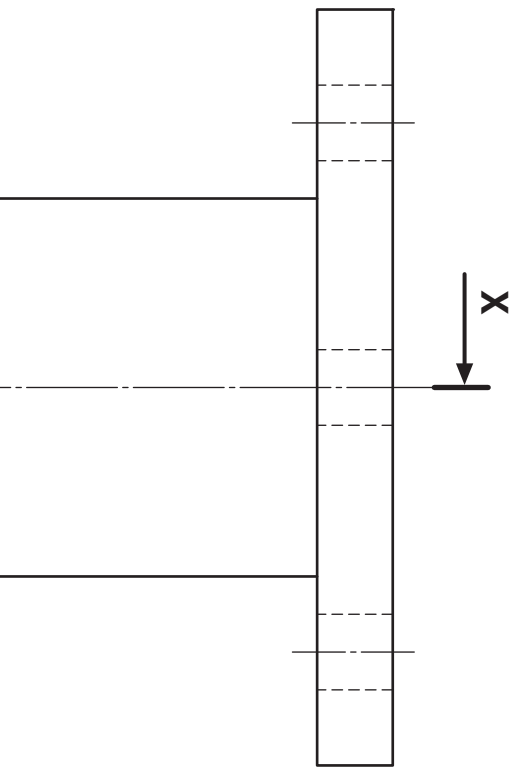


EXPLODED PICTORIAL VIEW

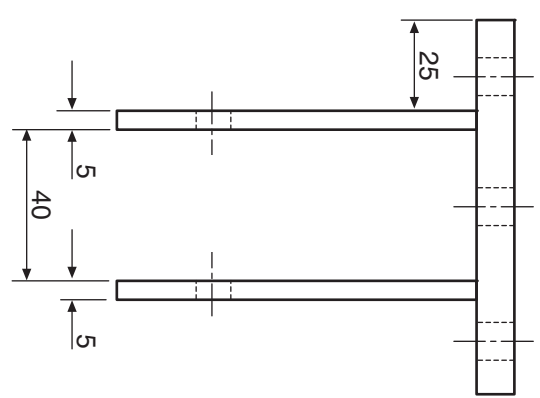


PLAN

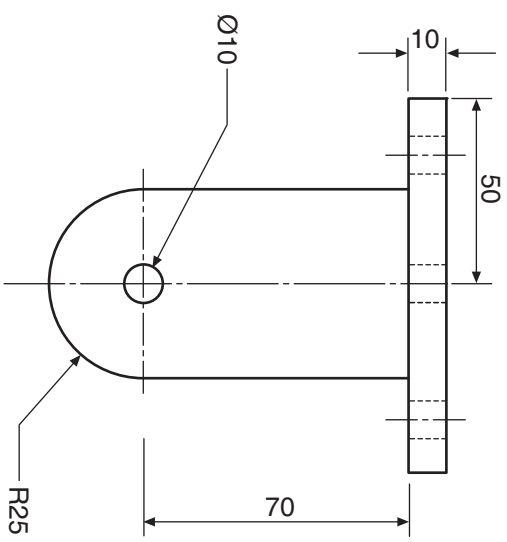
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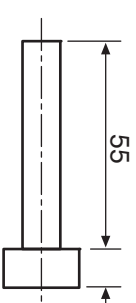
END ELEVATION



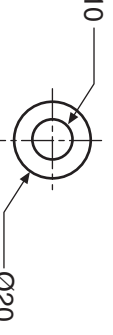
ELEVATION



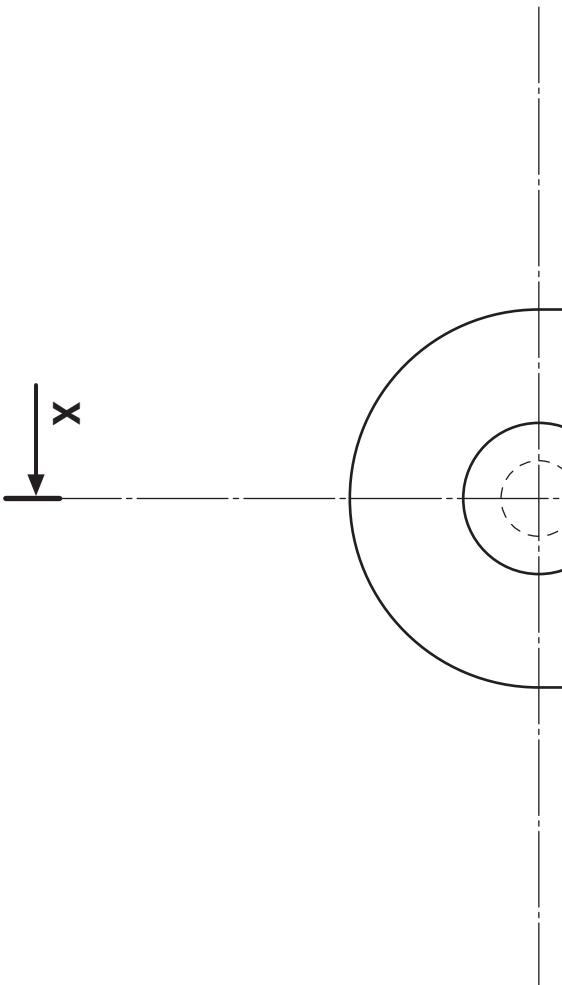
ELEVATION



ELEVATION



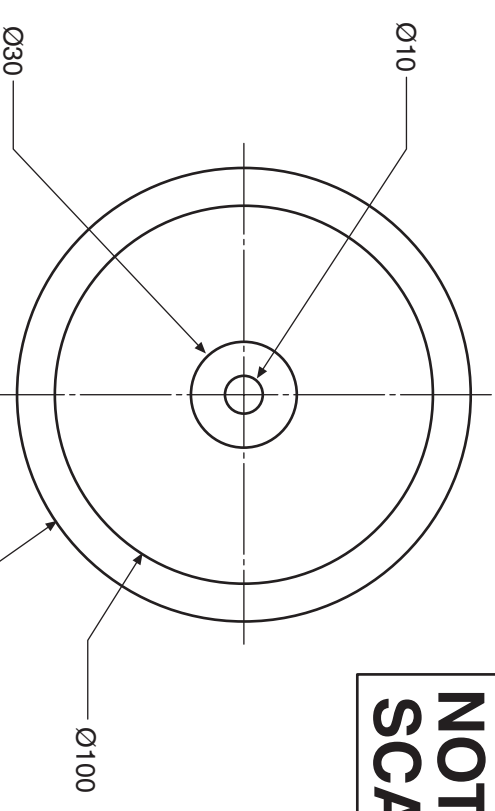
END ELEVATION



ELEVATION

SECTIONAL END ELEVATION ON X-X

NOT TO SCALE



ELEVATION

END ELEVATION

