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A company that designs conservatories now uses computers for all its graphic needs.

(a) Other than speed of production state **three** advantages of using computers when compared with manual methods of producing new designs.

1

2

3 **KI 3**

(b) State **three** disadvantages that the firm could have found by using computers.

1

2

3 **KI 3**

(c) State **two** input devices that could be used to transfer the company's existing manual drawings to the computer's memory.

Device 1 **Device 2** **KI 2**

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

(i) Producing an advertising leaflet, containing text and graphics, showing the latest design.

Answer

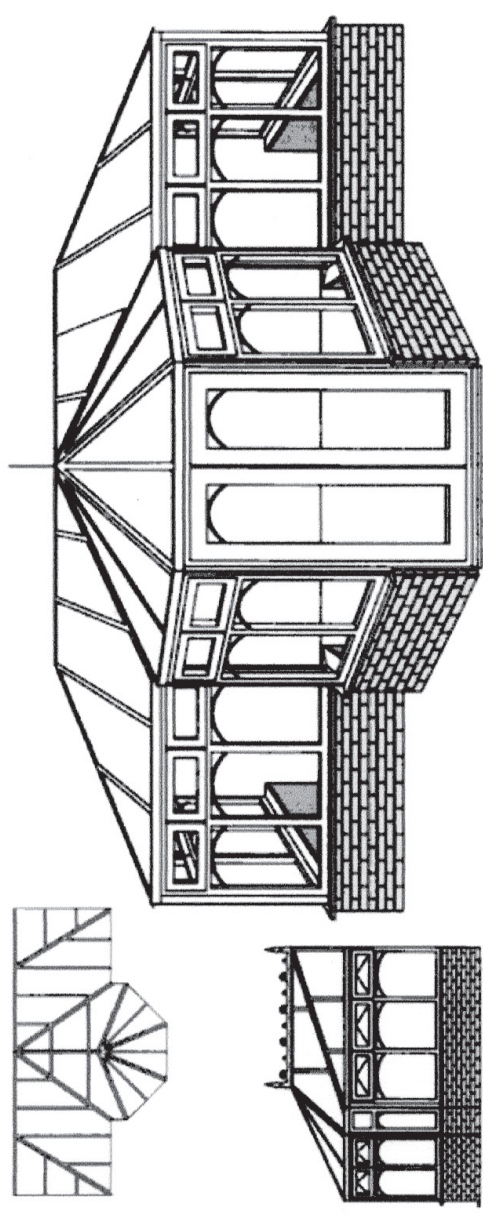
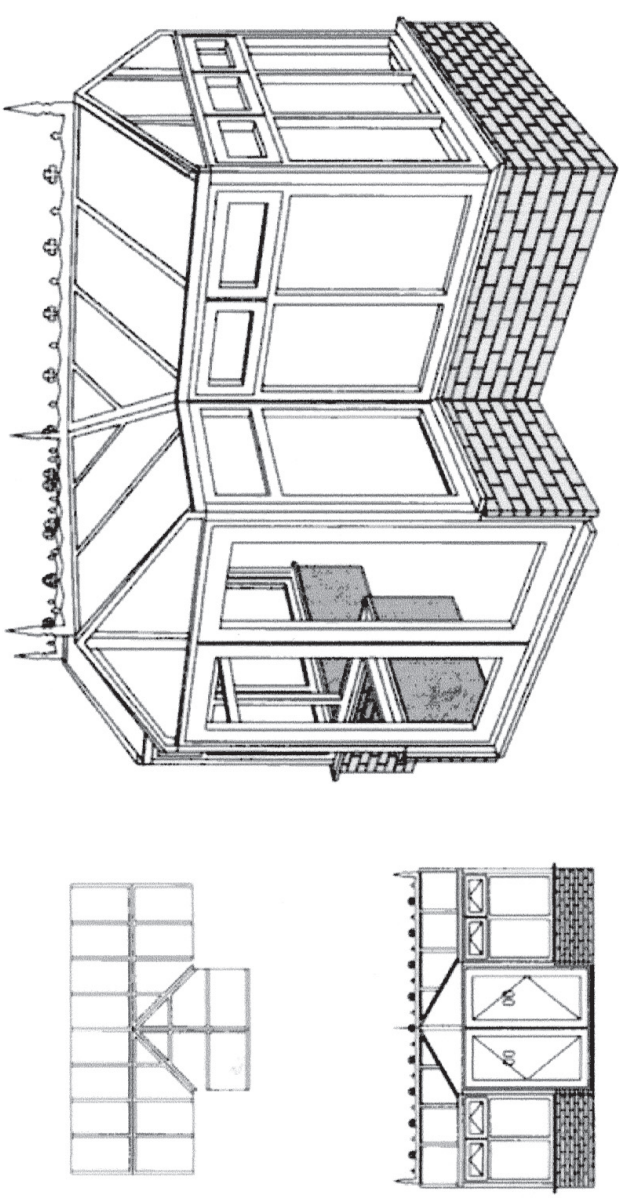
(ii) Producing a fully dimensioned production drawing of a new conservatory.

Answer

(iii) Producing a fully rendered graphic of the new conservatory.

Answer **KI 3**

Total (KI 11)



Many different types of drawings and views are used to communicate information in the graphic industry.

View 1, View 2 and Drawing X shown opposite, are used in the engineering industry.

(a) State the name given to these **types** of views.
View 1 **View 2** **KI 2**

(b) Explain the purpose of these drawings.
 Purpose of **View 1**
 Purpose of **View 2** **KI 2**

(c) State the name given to the **type** of drawing shown at **Drawing X**.
Drawing X **KI 1**

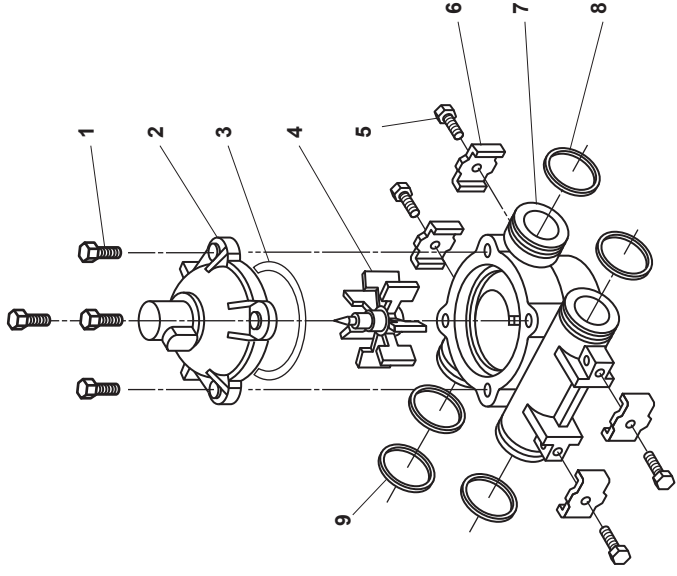
(d) Plotters are commonly used to obtain hard copies of these types of views and drawings. State the names of **two** different types of plotter.

Answer 1 **Answer 2** **KI 2**

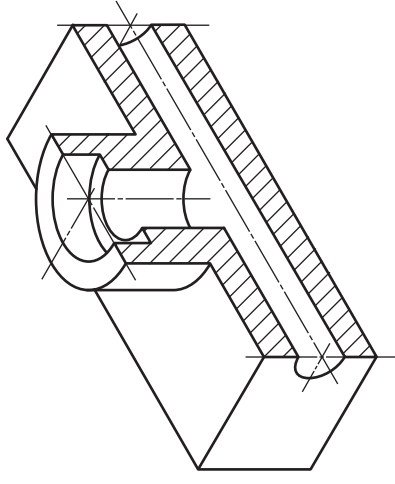
(e) **View 3** is used in the building industry.
 (i) State the name given to this type of view.
View 3
 (ii) State the angle used at Q° .
 **KI 2**

(f) Explain the meaning of 5:1 when it is written on a drawing.
Explanation
 **KI 1**

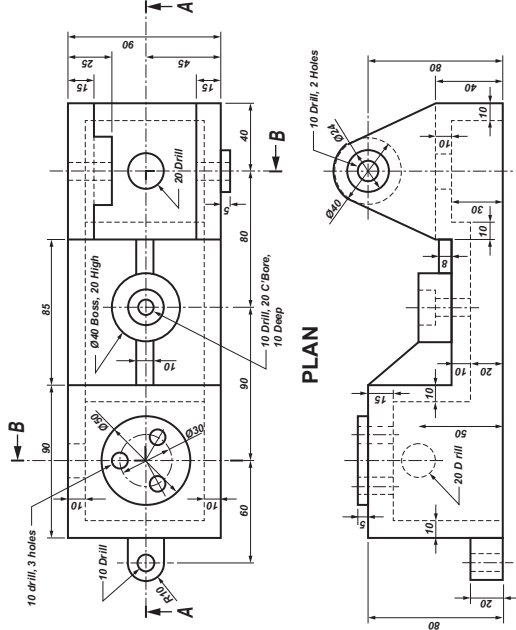
Total (KI 10)



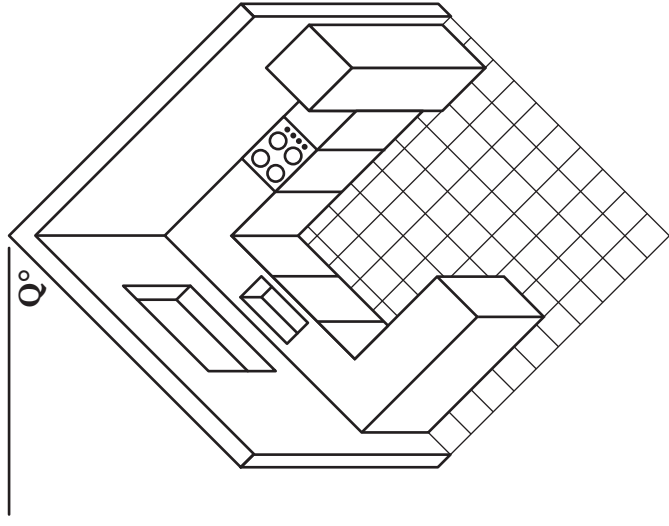
View 1



View 2



Drawing X



View 3

In the designing, testing, building and marketing of new vacuum cleaners, computers are now used at every stage to aid the designer.

- (a) Explain how the use of computer generated models could help designers working in two different countries who are working on the same design.

Explanation

KI 1

- (b) Other than speed of production, editing and cost, explain why not having a large built scale model would be of advantage to a small firm.

Answer

KI 1

- (c) State **two** disadvantages of computer generated models when compared to built scale models.

1

KI 2

- (d) State why the company would create a backup of all their work at the end of each day.

Answer

KI 1

- (e) State the names of **three** types of computer-generated models.

1 **2**

KI 3

- (f) The company used animation and simulation software with their new designs.

State the difference between animation and simulation.

Answer

KI 1

- (g) State **one** way in which the company could use a computer animation of a new vacuum cleaner design.

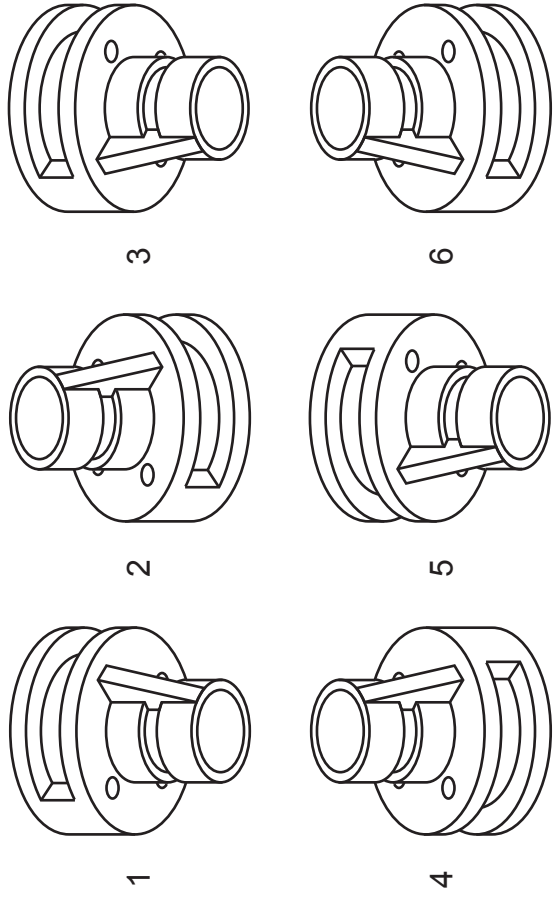
Answer

KI 1

Total (KI 10)



The elevation, end elevation and plan of part of a pipe bracket are shown in **Drawing X** and are drawn using BSI drawing conventions.



(a) State which **two** of the views 1 to 6 above, represent the bracket shown in **Drawing X**.

Answer 1 **Answer 2** **KI 2**

(b) State the name given to the types of view shown above.

Answer **KI 1**

(c) State the general name given to views like the ones above, in which you see all three dimensions.

Answer **KI 1**

(d) Views 1 to 6 above are not drawn to scale. State **two** factors that effect the scale used for drawings.

Answer 1 **Answer 2**

Answer 2 **KI 2**

(e) BSI drawing conventions are commonly used in the production of new designs. State **one** possible benefit to be gained by their use.

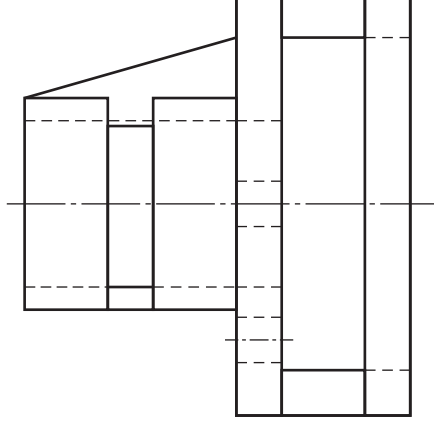
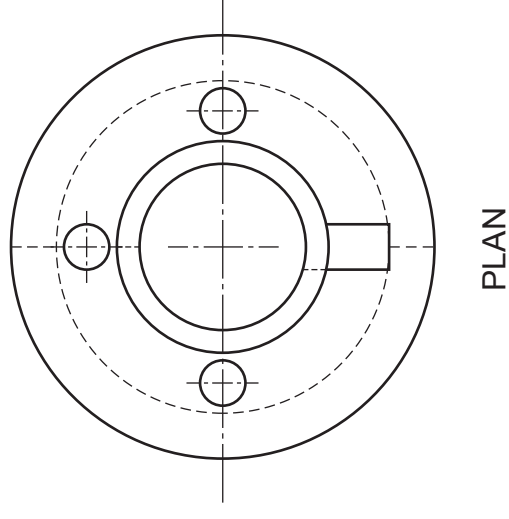
Answer **KI 1**

(f) Using the correct BSI convention for dimensioning, draw a diameter and a height to the elevation on **Drawing X**.

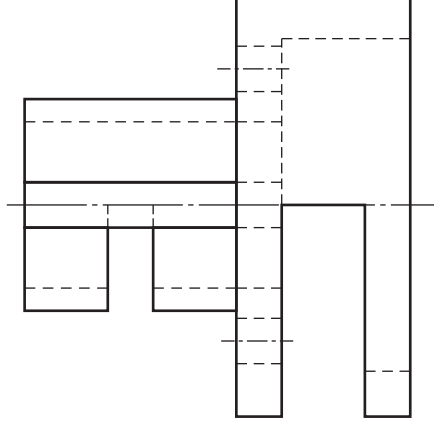
KI 2

Total (KI 9)

Drawing X



END ELEVATION



ELEVATION

5

The elevation of a staple gun is given, a pictorial view and additional detail view are also shown.

Draw, in the given positions:

(a) the plan;

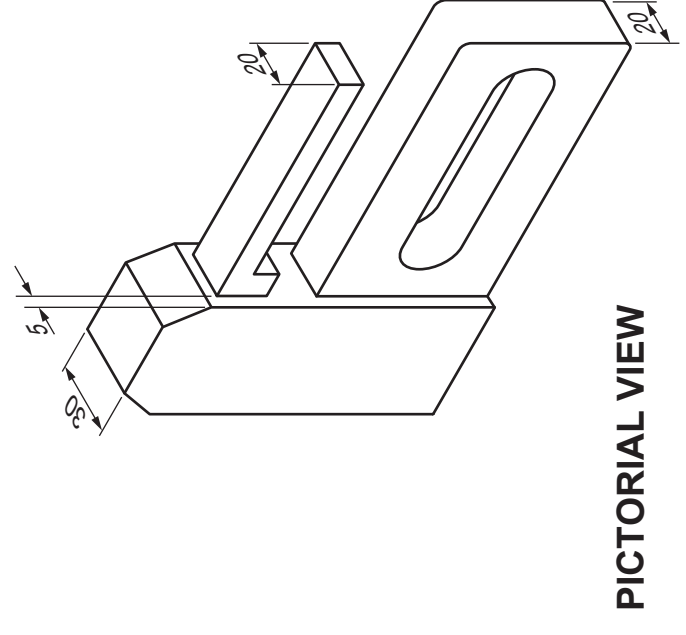
(b) the end elevation;

Show all hidden detail.

DA 7

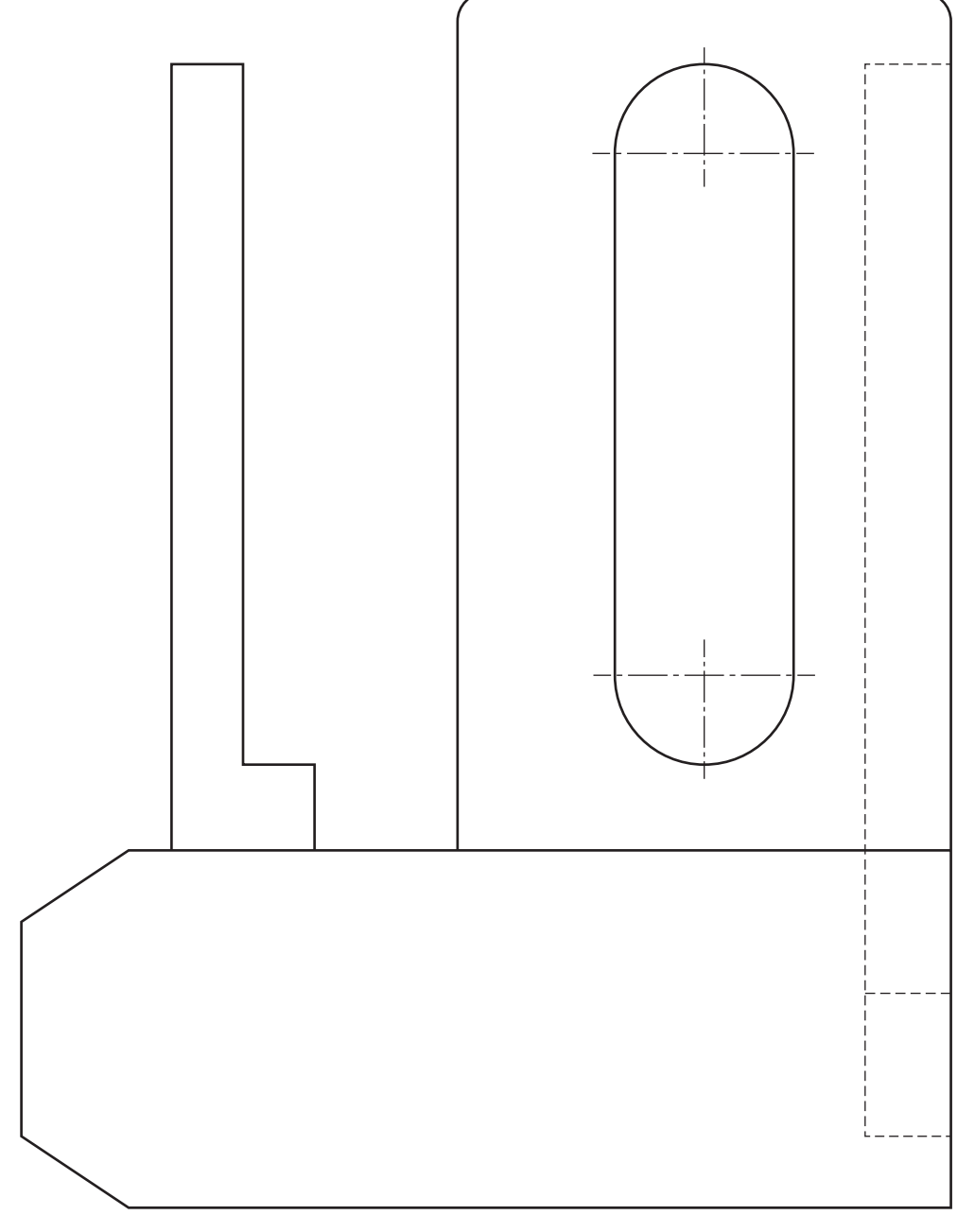
DA 5

Total (DA 12)

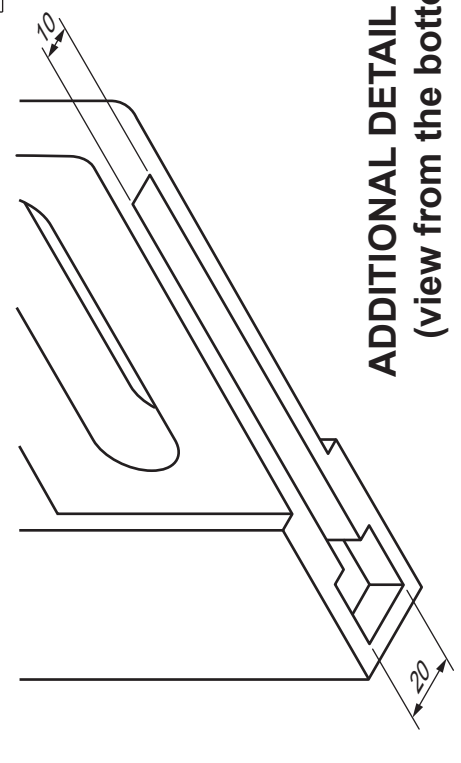


PICTORIAL VIEW

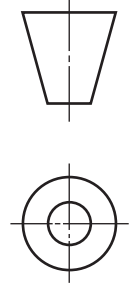
PLAN



ELEVATION



ADDITIONAL DETAIL VIEW
(view from the bottom)



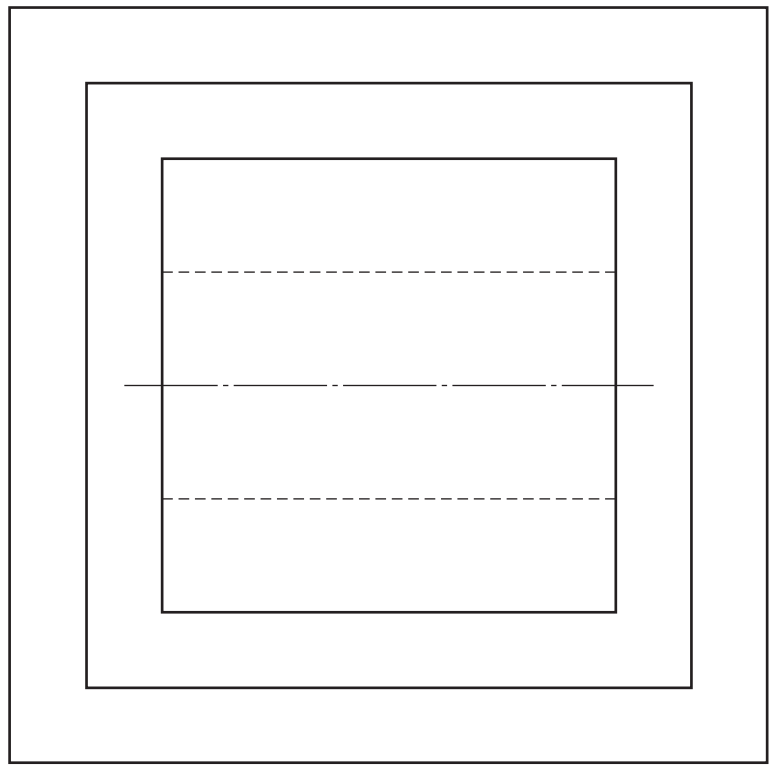
END ELEVATION

5

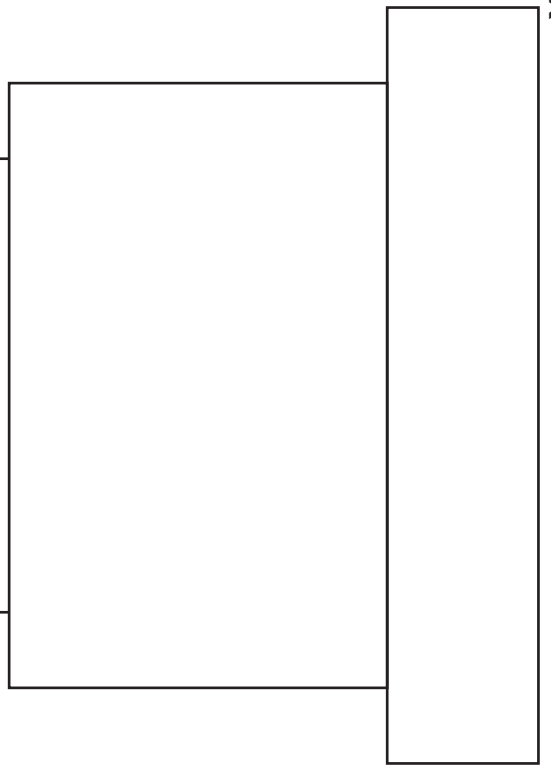
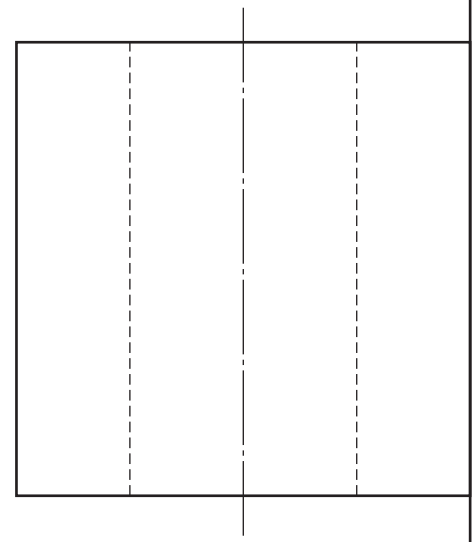
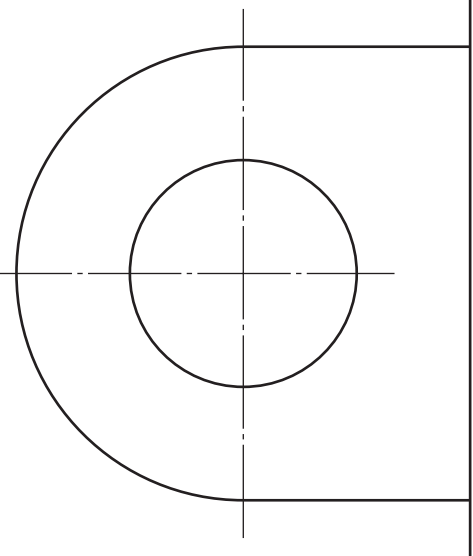
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6

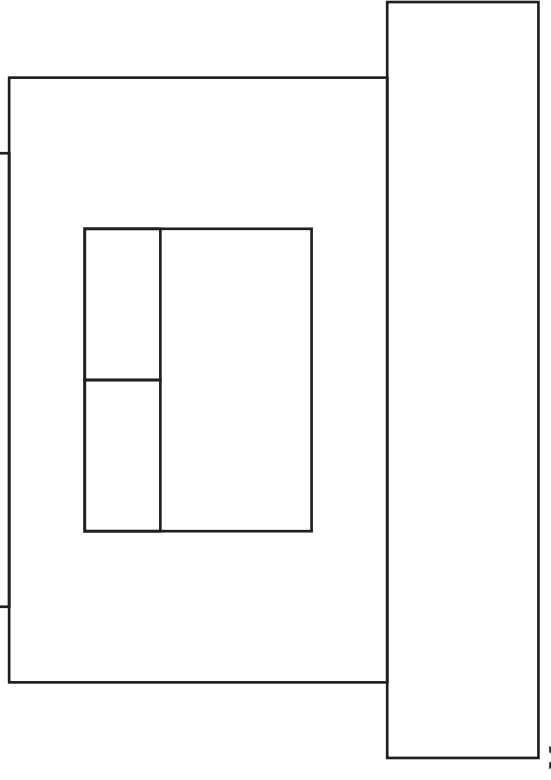
An elevation, plan and end elevation of part of a toy windmill are given. A pictorial view of the complete windmill is also shown. (Ignore the windmill blades.)
Draw an isometric view of the windmill without blades, using the given sizes and starting point **X**. **Do not show hidden detail.** **Total (DA 15)**



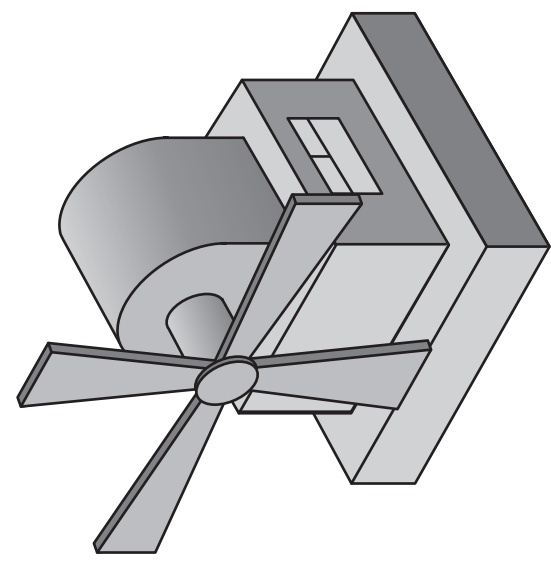
PLAN



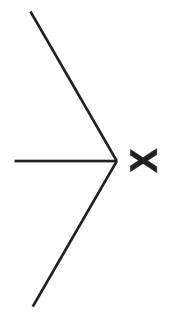
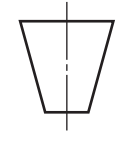
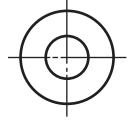
[1330/31/01] ELEVATION



END ELEVATION



PICTORIAL VIEW



6

a	
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Candidate's Name _____

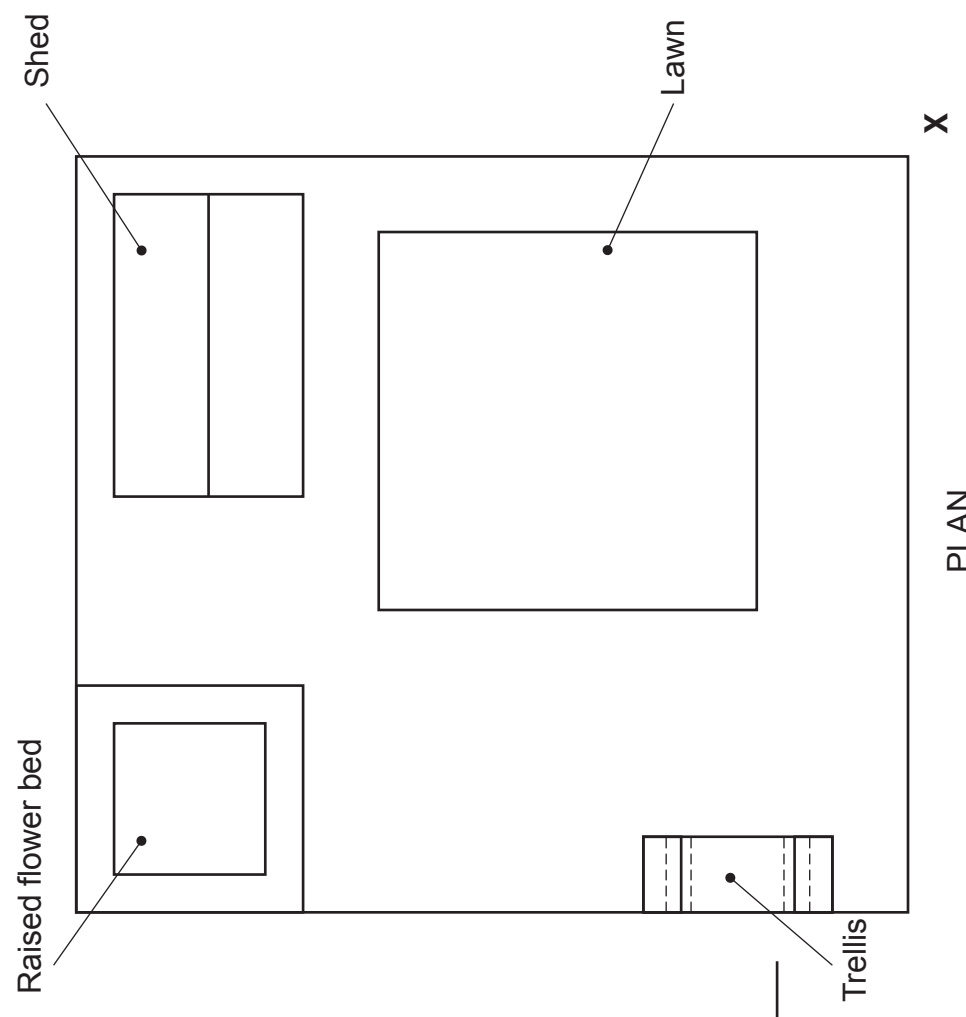
The elevation, end elevation and plan of a garden are given.

Draw a planometric view of the garden using the given start **X**.

Take all sizes from the given views.

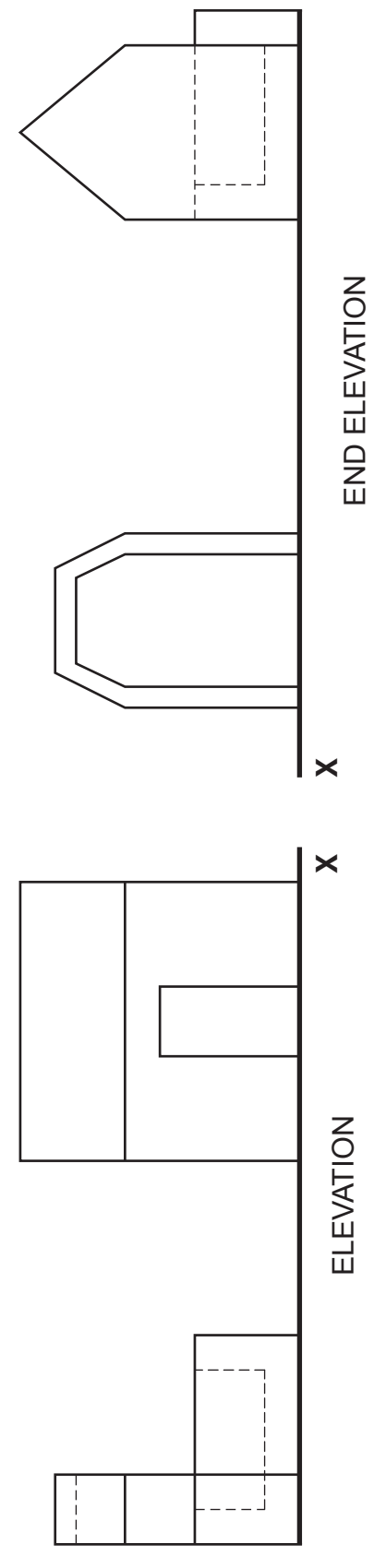
Do not show hidden detail.

Total (DA 14)



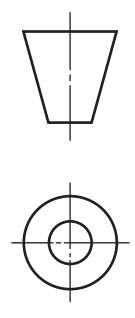
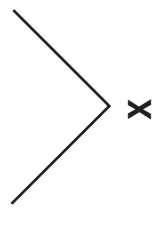
PLAN

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<i>c</i>	
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<i>e</i>	
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ELEVATION

END ELEVATION



Candidate's Name _____

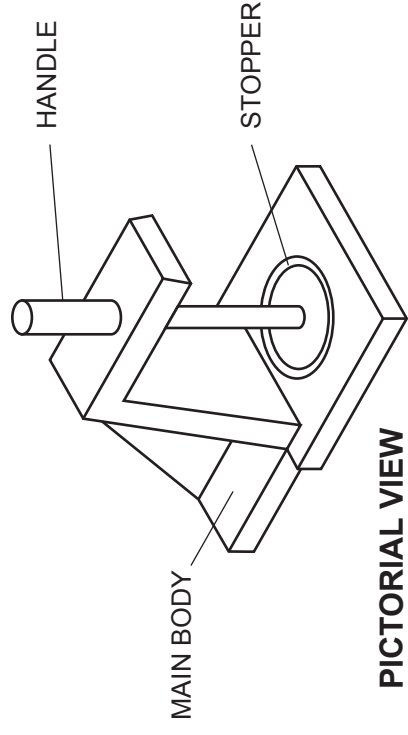
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A pictorial view of a badge making machine is shown. Detailed orthographic views of the components are also shown (not to scale).

From the given elevation, **draw** in the position indicated the sectional end elevation on **X-X**.

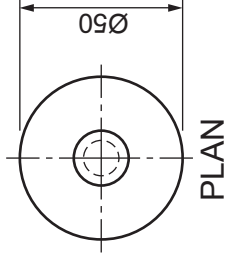
Do not shown hidden detail.

Total (DA 14)

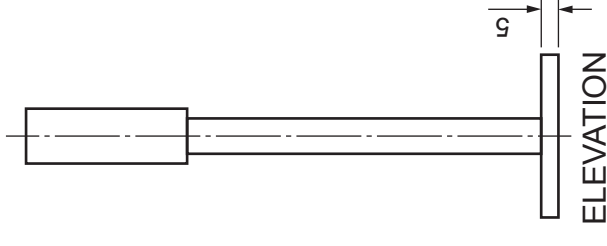


PICTORIAL VIEW

HANDLE

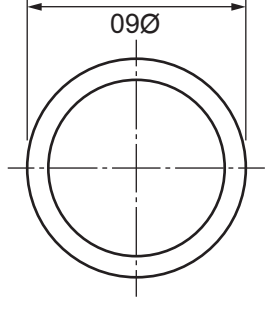


PLAN

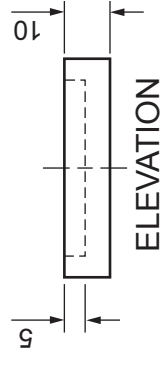


ELEVATION

STOPPER

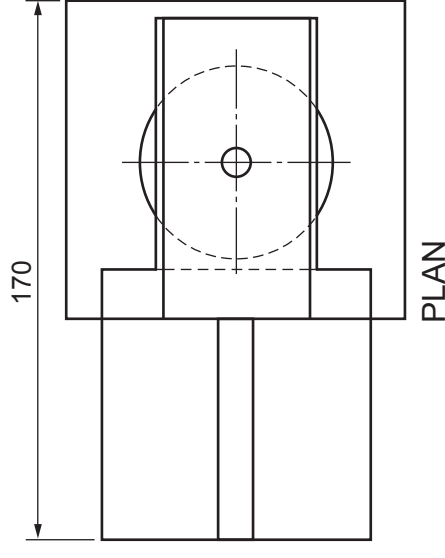


PLAN

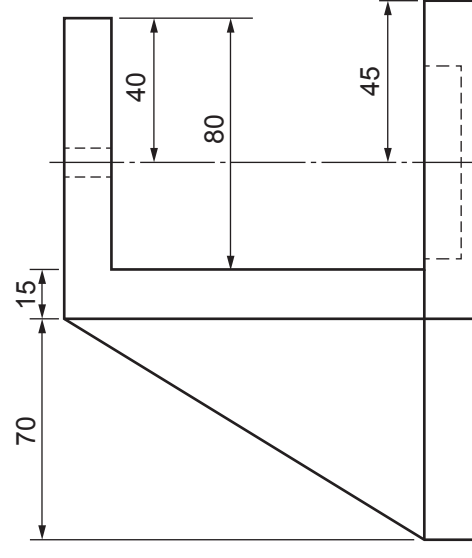


ELEVATION

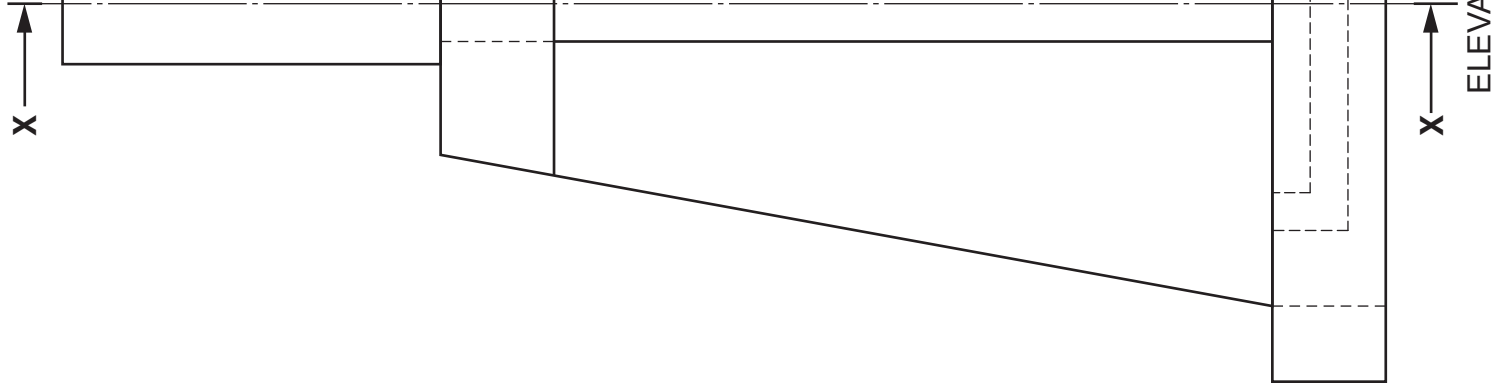
MAIN BODY



PLAN

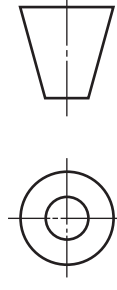


ELEVATION



ELEVATION

SECTIONAL END ELEVATION ON X-X



9

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