

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

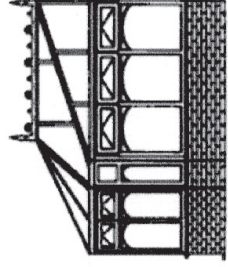
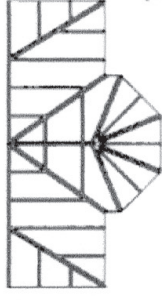
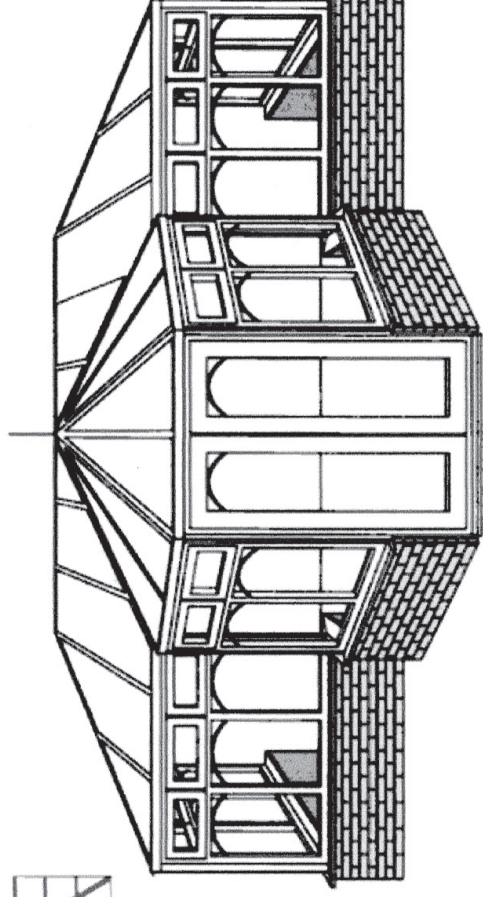
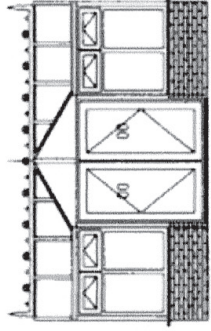
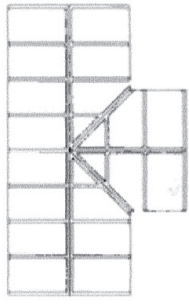
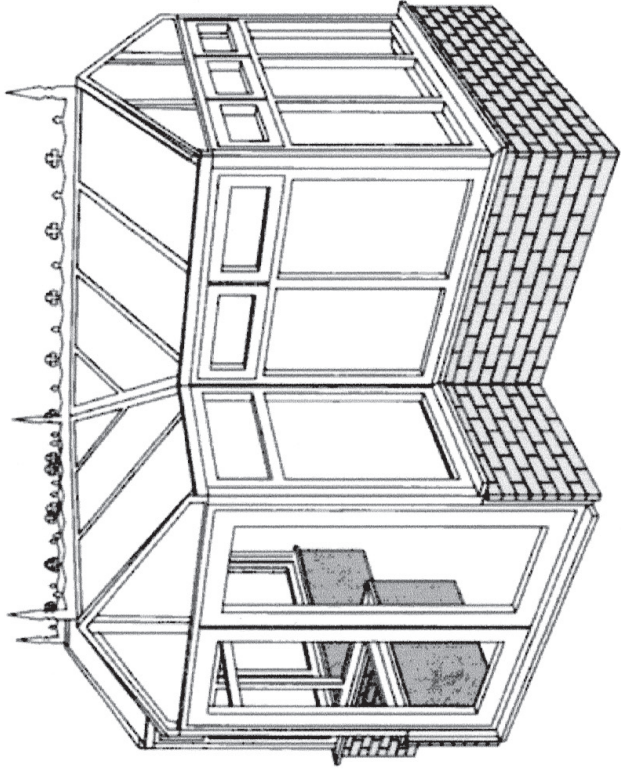
(ii) Producing a fully dimensioned production drawing of a new conservatory.

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**

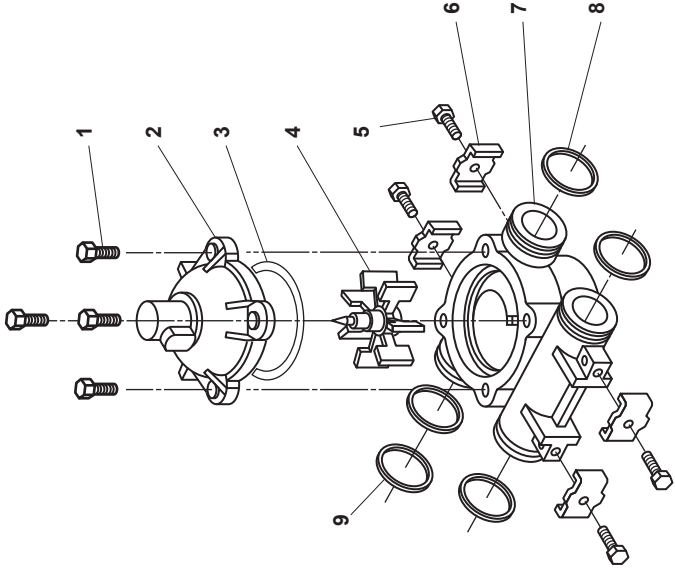
(e) **View 3** is used in the building industry.

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

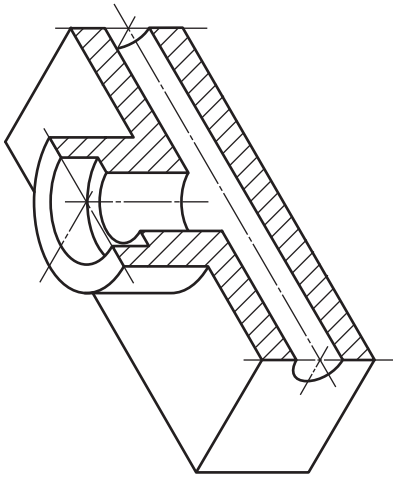
(f) Explain the meaning of 5:1 when it is written on a drawing.

Explanation
 **KI 1**

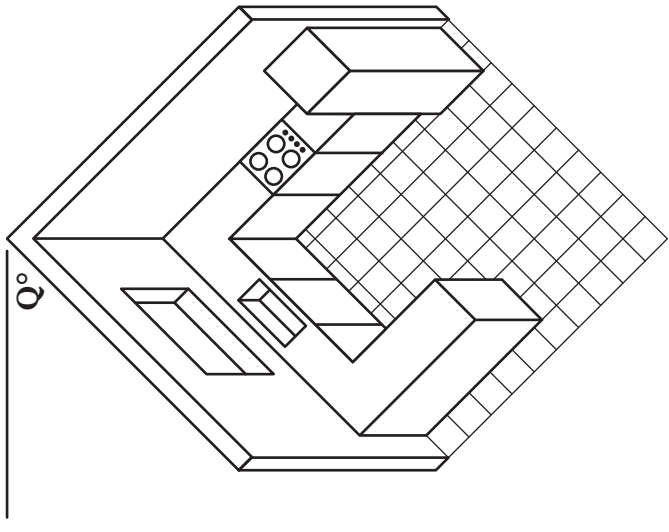
Total (KI 10)



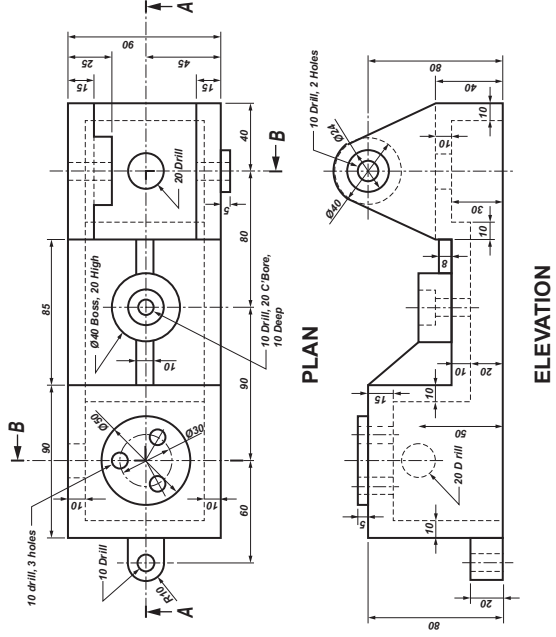
View 1



View 2



View 3



Drawing X

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.

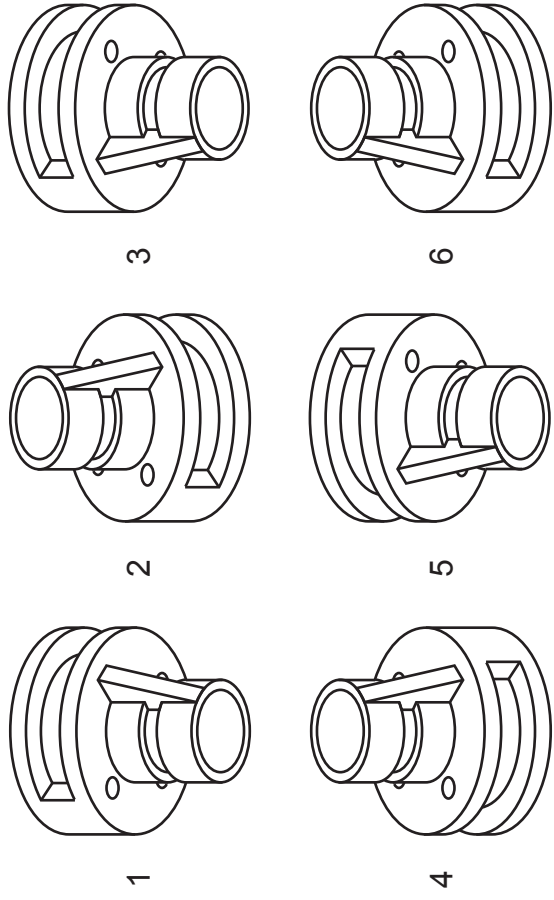
Answer

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.

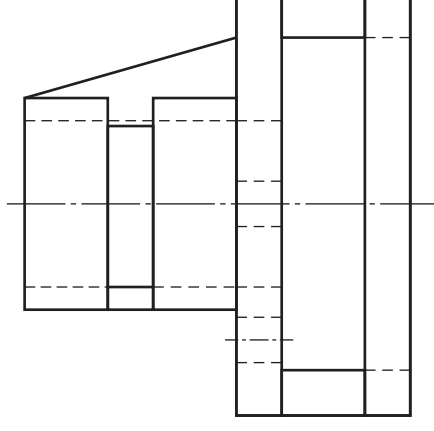
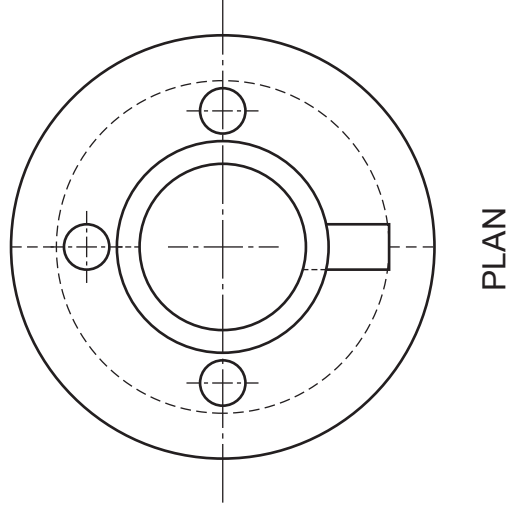
Answer **KI 1**

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

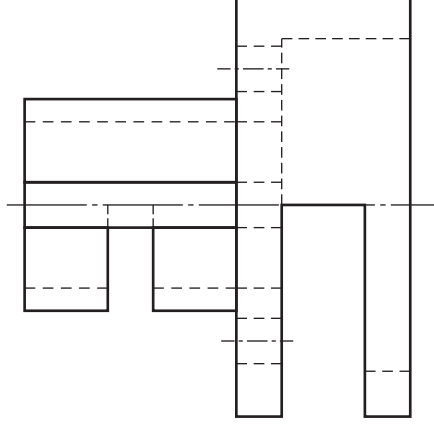
KI 2

Total (KI 9)

Drawing X



END ELEVATION



ELEVATION