

1) Visualizing the Cutting plane

Full Section

Half Section

Offset Sections

Aligned Sections

Revolved Sections

Broken-out Sections

Sectioning shafts

2i) All dimension, extension and leader lines should be thin, sharp, dark lines

ii) They should be drawn in pairs. Extension lines are to be drawn perpendicular to the dimension lines

iii) Each dimension should be terminated by arrowheads touching the extension lines and pointing in opposite directions.

iv) Dimensions shown with dimension lines and arrowheads should be placed so to read from the bottom of the drawing.

v) All dimensions should be given in decimal format.

3) Half Section: A half section is a view of an object showing one-half of the view in section, as in the drawing. The diagonal lines on the section drawing are used to indicate the area that has been theoretically cut. These lines are called section lining or cross hatching.

Full Section: A full section is when an imaginary cutting plane passes through the entire object, splitting the drawn object in two with the interior of the object revealed.

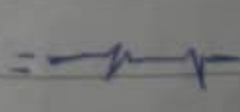
- 4) They are terminated with
- i) closed filled or closed blank
 - ii) Dot
 - iii) Tick
 - iv) Dimension leader

5) Scale = 5:1

When a 50mm line is to be drawn at a scale of 5:1 (i.e. 5 times more than its original size). The measurement 50mm is multiplied by 5 to give 250. A 250mm line is drawn.


Scale = 1:10?


This is when a drawing is at a scale of 1:10 which means that the object is 10 times smaller than in real life scale 1:1.

6) Diameter = \varnothing e.g. " $\varnothing 55\text{mm}$ " Long Break = 
radius = R e.g. R55

Square = \square

Spherical radius = SR

Centre line = 

Cutting plane line = 

17) Projection

Observer's eye or station point
Plane of Projection
Projector.

An Orthographic projection is a method of projection in which an object is depicted using parallel lines to project its outline onto a plane.

8) When all the projection lines in a parallel projection are perpendicular to the projection plane.

9) First angle projection: This is a method of creating a 2D drawing of a 3D drawing.



Third angle projection: This is a method of Orthographic projection which is a technique in portraying a 3D design using several 2D views.



1) A = reference plane

2) A = True

3) C

4) B

5) A

6) B

7) C

8) B

9) A

10) A

11) C

12) A

13) C

14) C

15) D