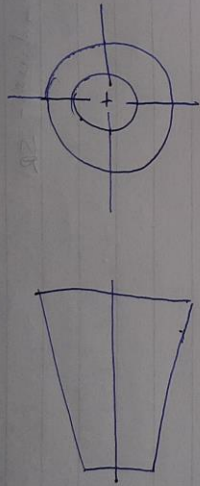


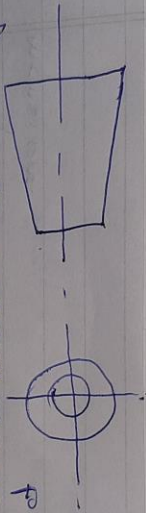
a 3D object. The main purpose is to show the object in a 2D form.

8. When a 3D object is drawn in different views of 2D dimensions, it is called as 2D drawing of a 3D object.

9. First angle projection is a method of creating a 2D drawing of a 3D object.



Third angle projection is a method of creating a 2D drawing of a 3D object.



- Objectives
1. Reference plane (A)
 2. False (B)
 3. Directly (C)
 4. 120° (B)
 5. 60° (A)
 6. Rivet (B)
 7. Crowning (C)
 8. 45° (B)
 9. A circle (A)
 10. An ellipse (A)
 11. Cylinder (C)
 12. Truncated cone (A)
 13. Pivot bearing (C)
 14. 55° (C)
 15. Horizontal plane (B)

11) As far as possible dimensions should be placed outside the view
 12) Dimensions should be represented from the visible outlines, rather than from hidden lines
 13) Dimensions should be given from a base-line, centre-line of a hole, or a finished surface. Dimensioning to a centre or centre line should be avoided, except when it passes through the centre of a hole.

14) Intersecting projection and dimension lines should be avoided.
 15) If the space of dimensioning is insufficient, the arrow heads may be reversed and the adjacent arrow heads may be replaced by a dot.

3) Half section

A half-section is a view of an object showing one-half of the view in section, as in the drawing below. The diagonal lines on the section drawing are used to indicate the area that has been theoretically cut.

Full section:

If the imaginary cutting plane passes through the entire object, splitting the drawn object into two, the interior of the object revealed, the is called full section.

11) Four different standards are used in engineering drawing

- * Dot
- * Tick
- * Dimension made -
- * closed figure closed figure closed blank

5) Scale = 1:10

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

* Scale = 5:10

- A 50 mm line is to be drawn at a scale of 5:10 which is 5 times less than its original line.

6) a) diameter - ϕ

b) radius - R

c) Square - \square

d) spherical radius - SR

7. Front view

top view

side view

Orthographic projection: is a means of representing three-dimensional objects in two dimensions.

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ENGINEERING DRAWING
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BIOMEDICAL ENGINEERING

1. When sketching an object or part that requires a sectional view, they are drawn by making at an angle of approximately 45 degrees, and are spaced about $1/8"$ apart. Since they are used to set off a section, they must be drawn with care. It is best to use the symbol for the material being shown as a section on a sketch.

2. ~~1.1~~

2.1) All dimensional information necessary to define a part clearly and completely shall be shown directly on a drawing.

(i) Each feature shall be dimensioned once only on a drawing.

(ii) Dimensions shall be placed on the view or section that shows clearly the corresponding features.

(iii) As far as possible, on a drawing, dimensions shall be expressed in one unit only, preferably in millimeters.

(iv) No more dimensions than are necessary to define a part shall be shown on the drawing. No feature of a part shall be defined by more than one dimension in any direction.