

AME 4810 assignments

18/Jan/2019

1 Visualizing The Cutting Plane

Full Section

Half section

Offset Section

Reveled Section

Revealed Section

Broken out section

Submerging shafts

2 All dimension extension and lines should be thin, sharp, dark lines.

i Extension lines are to be drawn perpendicular to the dimension lines.

ii Each dimension should be terminated by arrow touching the lines and pointing at opposite directions.

iii Dimension's shown with dimension lines and arrows should be placed to be read from the bottom of the drawing.

v All dimensions should be given in decimal format.

3 Half Section - This is view of an object showing one half of the object in section. The diagonal lines in the section drawing are used to indicate the area that has been physically cut. These lines are called section 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.

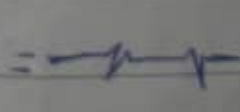
- 4) They are terminated with
- i) closed filled or closed blank
  - ii) Dot
  - iii) Tick
  - iv) Dimension leader

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 = 

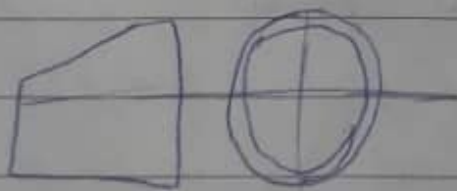
## 17) Projection

- Observer's eye or station point
- plane of projection
- Projector

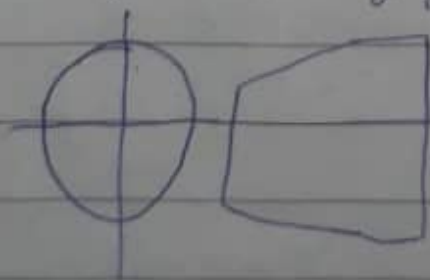
i. An Orthographic projection is a method of projection in which an object is depicted using parallel lines to project its outline onto a plane.

ii. 8) When all the projection lines in a parallel projection are ~~orthogonal~~ orthogonal to the projection plane.

iii. 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 series of 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