

MUHAMMAD ISLAM HABIB
MECHANICAL ENGINEERING
191ENG06/067

ENGG 232 E ENGINEERING DRAWING 3

- ① * Section View is a view used on a drawing, to show an area or hidden part of an object, it is represented by Half - section lines.
- ② i) Dimension and projection lines are narrow continuous lines 0.35mm thick, if possible clearly placed outside the outline of the drawing.
- ii) Arrowheads should be approximately triangular, must be of uniform size and shape and in every case touch the dimension lines to which they refer.
- iii) Arrowheads drawn manually should be filled in. Annotating machines does not need to be filled in.
- iv) Adequate space must be left between rows of dimensions and a spacing of about ~~12~~ 12mm is recommended.
- v) Centre lines must never be used as dimension lines but must be left clear and distinct.
- vi) Dimensions are quoted in millimeters to the minimum number of significant figures
- vii) To enable dimension to be read clearly, figures are placed so that they can be read from the bottom of the drawing.

3.) Half - section

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

Half - section

If the imaginary cutting plane passes through the entire object, splitting drawn object in two with the interior of the object revealed.

- 4.) A leader line can be terminated in three ways;
- * with a dot within the outline of the object (surface)
 - * with an arrow head on the outline of an object (edge)
 - * without a dot or an arrow head on a dimension line

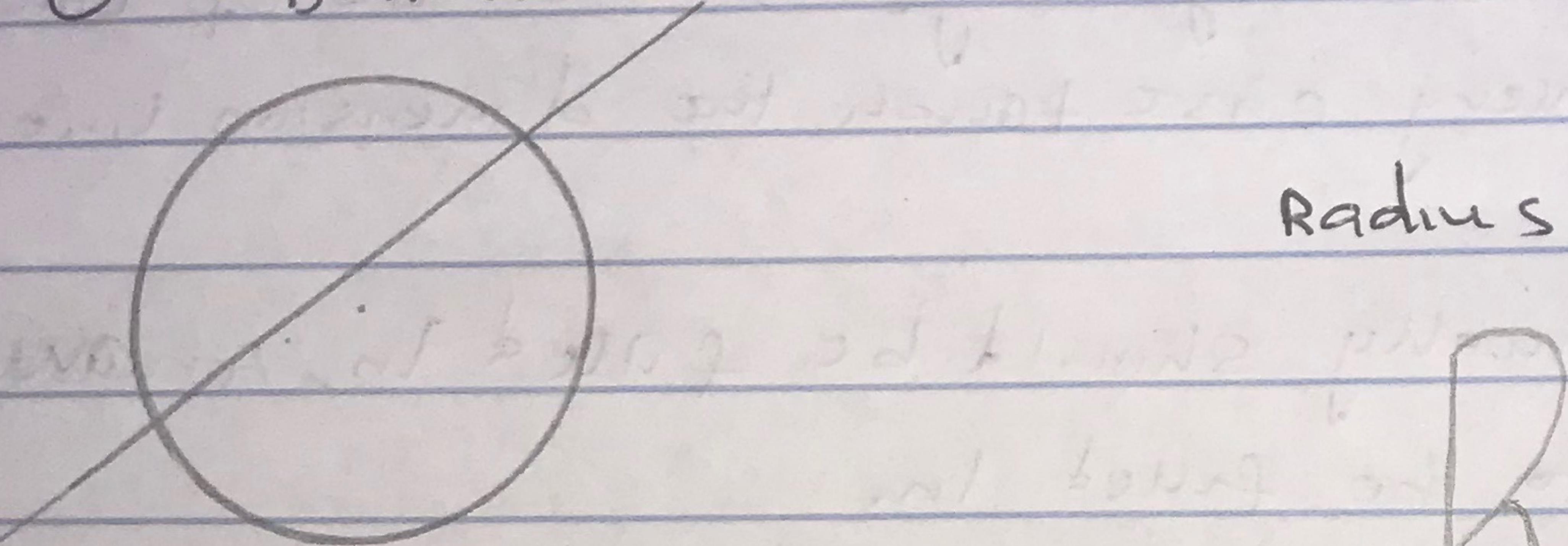
(5) Scale = 5:1

This means the drawing will mean that the drawing is 5 times larger than the object itself.

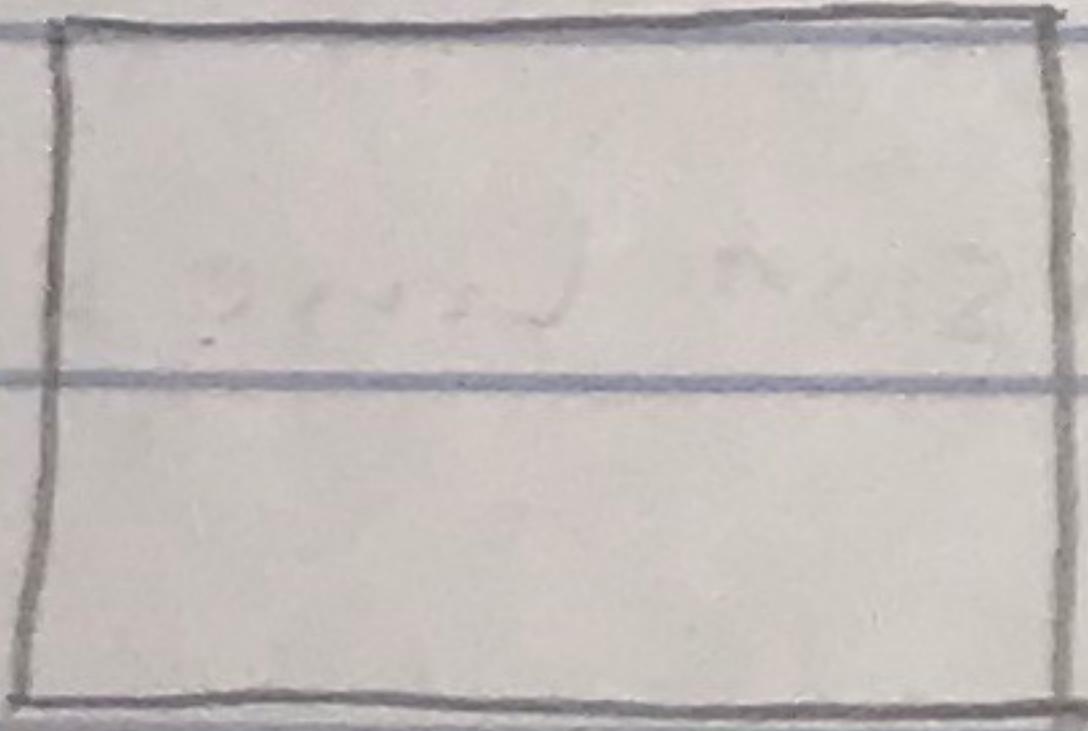
Scale = 1:10

This means the object is 10 times smaller than in real life

(6) Diameter



Square



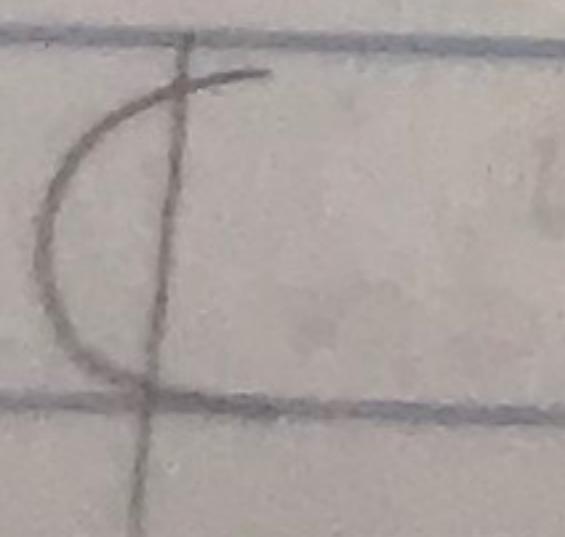
Radius

R

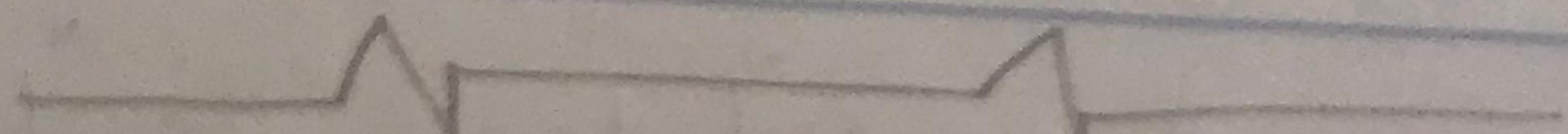
spherical radius

SPR

Cutting plane line



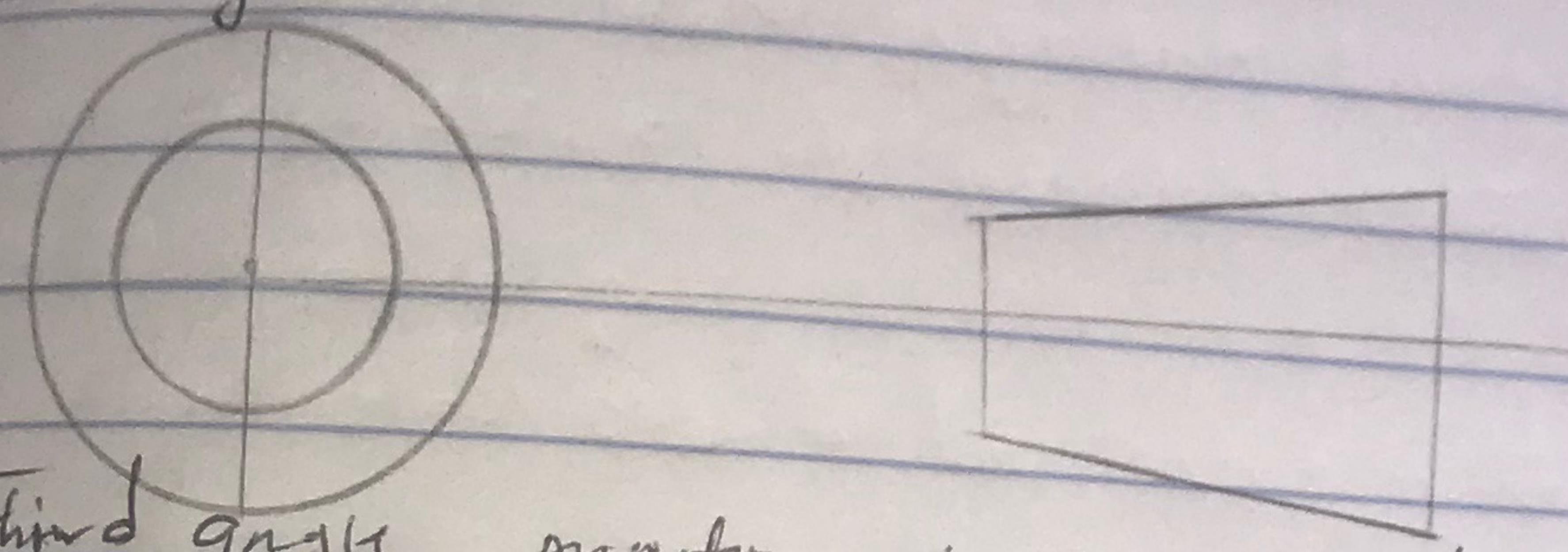
Long break



2) As object, have three dimensions like length, width and height/thickness. To shapes and sizes of three dimensional object needs to be represented on a sheet of drawing paper, which has only two dimensional planes.

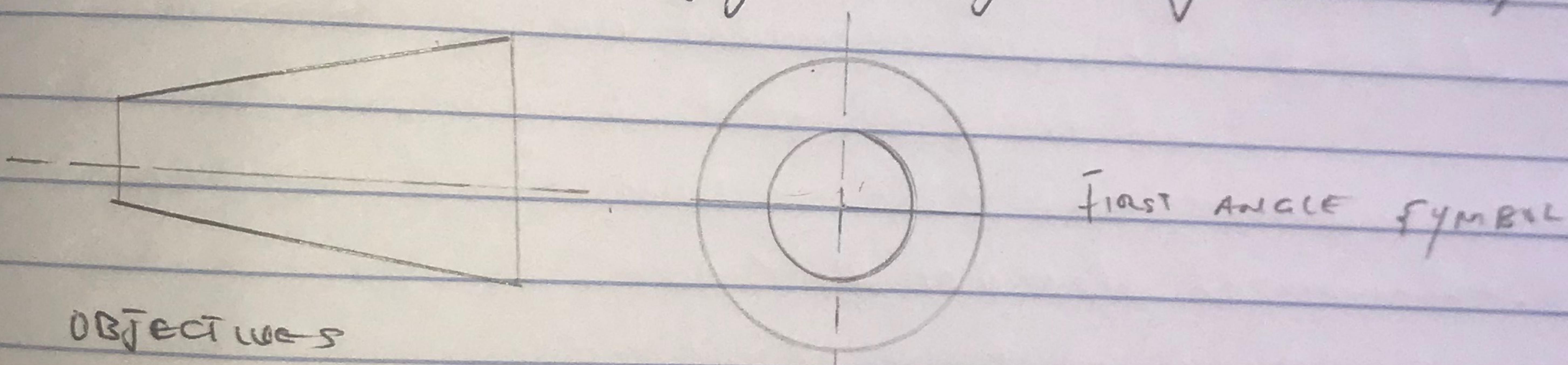
4) Orthographic projection is a means of representing three-dimensional objects in two dimensions.

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



First Angle Symbol

Third angle projection is a method of orthographic projection which is a technique in portraying a ^{3D} design using a series of 2D views.



Third Angle Symbol

OBJECTIVES

1) {A} Reference plane 15) {D} Horizontal plane

2) {B} false

3) {C} Directly

4) {B} 120°

5) {A} 60°

6) {B} Rivet

7) {C} Crownings

8) {B} 45°

9) {A} a circle

10) {A} an ellipse

11) {C} cylinder

12) {A} cone

13) {D} pedestal bearing

14) {C} 55°