Projections of Solids

Introduction

An object having three dimensions, i.e., length, breadth and height is called as solid. In orthographic projection, minimums of two views are necessary to represent a solid. Front view is used to represent length and height and the top view is used to represent length and breadth. Sometimes the above two views are not sufficient to represent the details. So a third view called as side view either from left or from right is necessary.

Procedure to Solve problems in Solids

Step 1:

Assume solid standing on the plane with which it is making inclination.

- (If it is inclined to HP, assume it standing on HP)
- (If it is inclined to VP, assume it standing on VP)

- If standing on hp - its **TV will be true shape** of its base or top:
- If standing on VP - its **FV will be true shape** of its base or top.

Begin with this view:

Its other view will be a **rectangle (if solid is cylinder or one of the prisms**):

Its other view will be a **triangle (if solid is cone or one of the pyramids**):

Draw FV & TV of that solid in standing position:

Step 2:

Considering solid's inclination (axis position) draw its FV & TV.

Step 3:

In last step, considering remaining inclination, draw its final FV & TV.