TA 101A:2019-20:II

Lecture 22 – Normal Views of Oblique Surfaces-I

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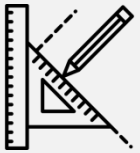
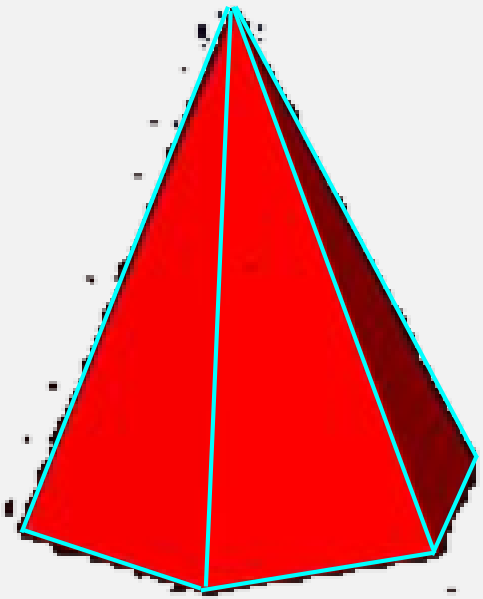
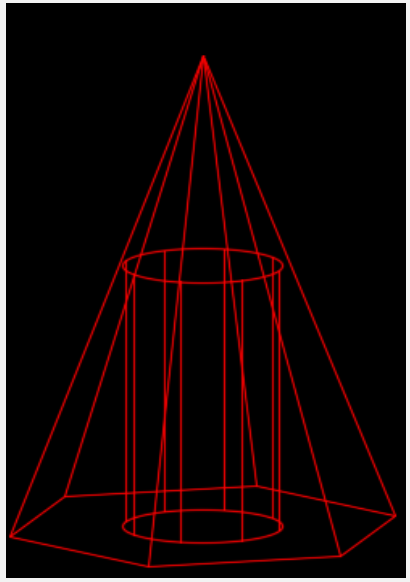
Recapitulation

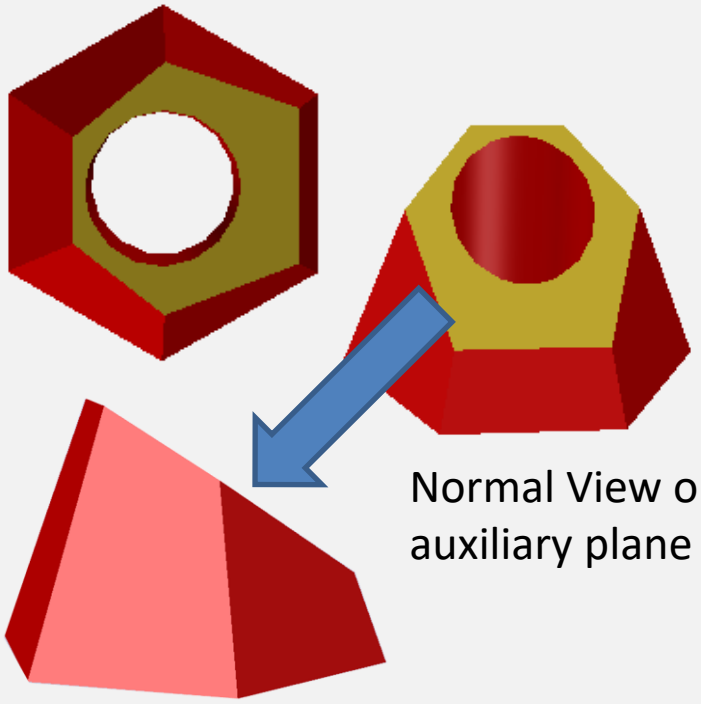


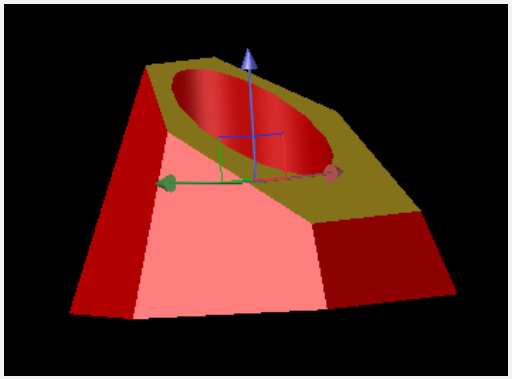
- Space geometry
- Concept of auxiliary plane and auxiliary view
- Locating auxiliary plane and generating auxiliary view
- Point and TL view of a line
- Edge and TS view of a plane
- Interaction of lines and planes

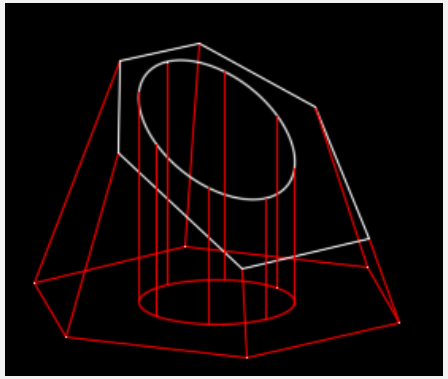
Normal Views of Oblique Surfaces









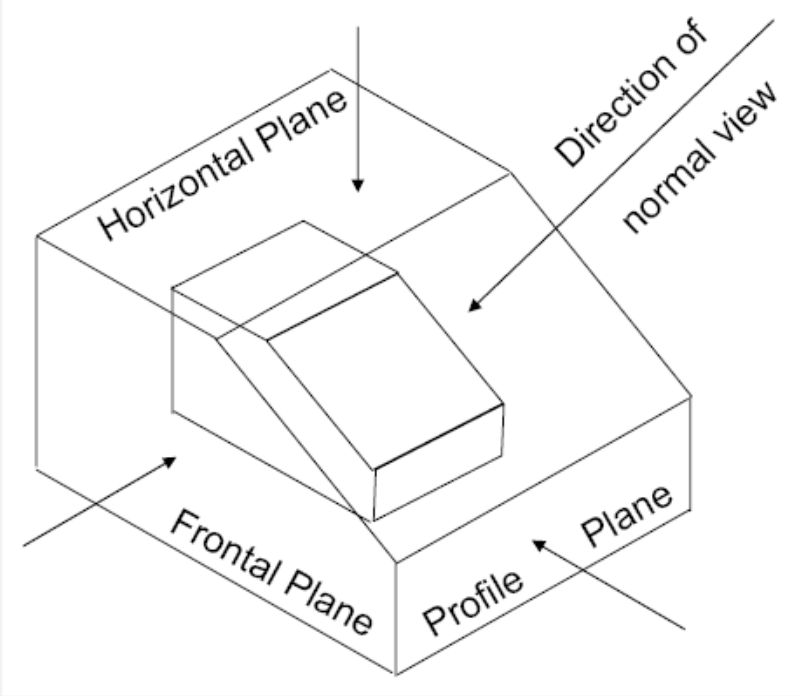


Different names:
Orthographic View, Normal View, True Shape View, Auxiliary View are all same.

Basics of Construction of Auxiliary view

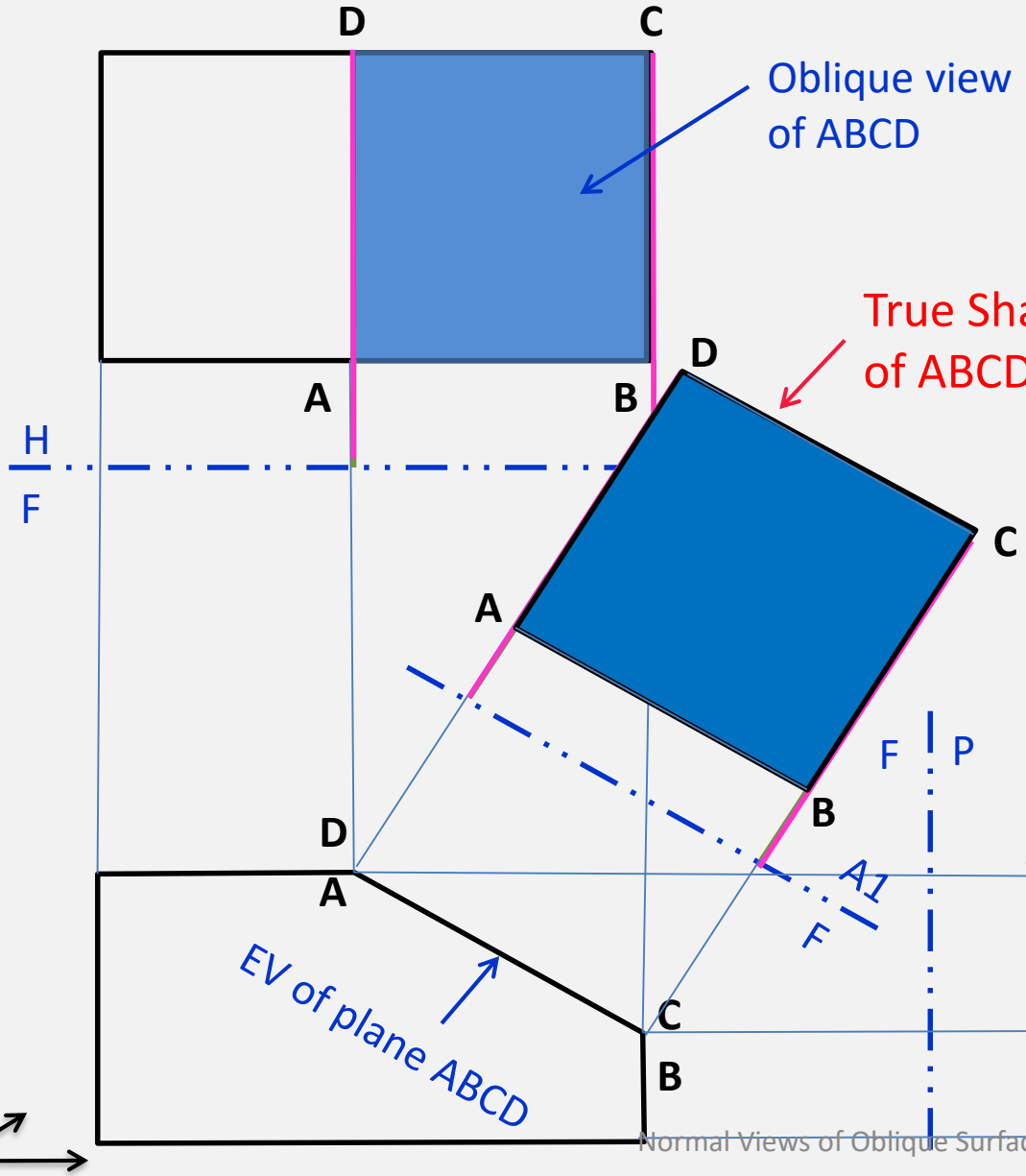
- Oblique Plane > Oblique Line > TL > PV> EV > TS

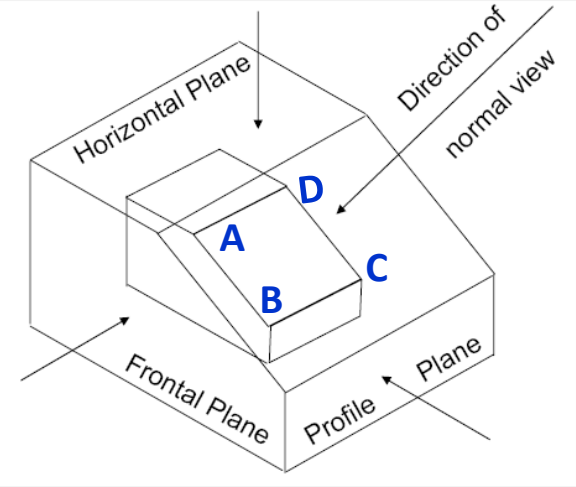
- A reference line instead of hinge line may also be used to determine distances



Which line on oblique plane will be projected as TL to generate EV?

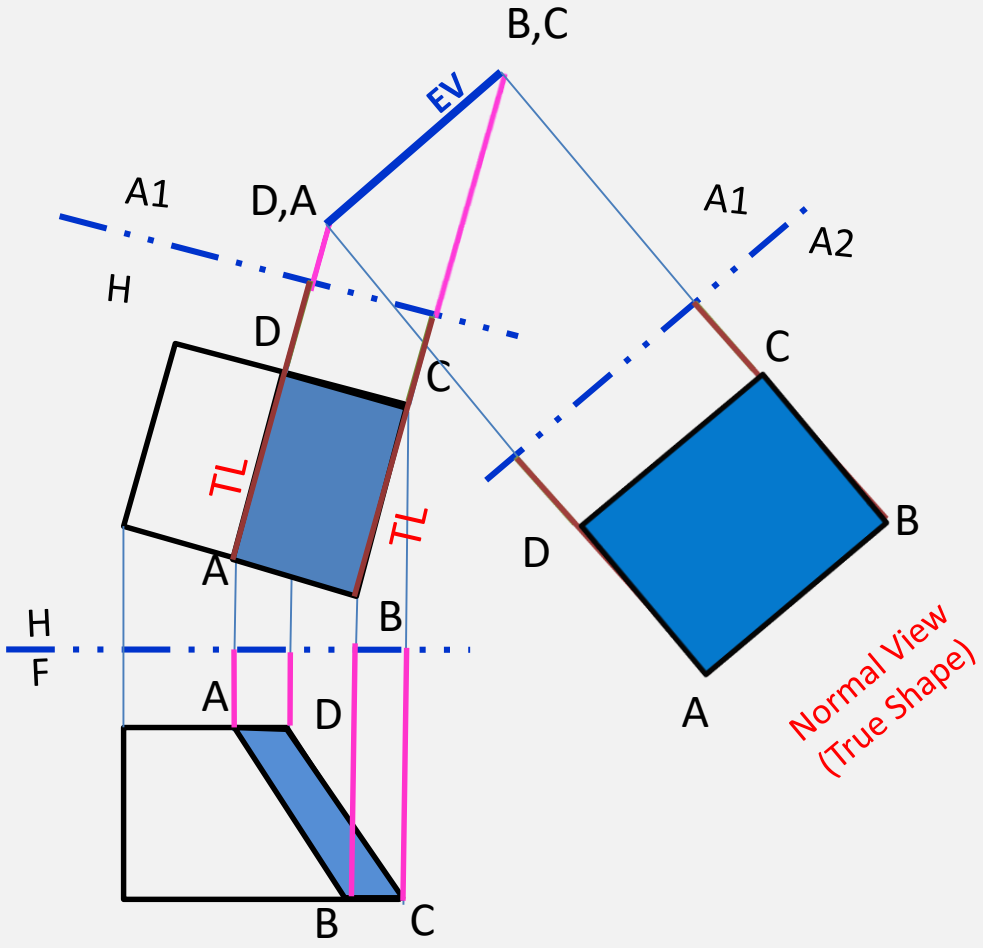
Normal View of Oblique Surfaces





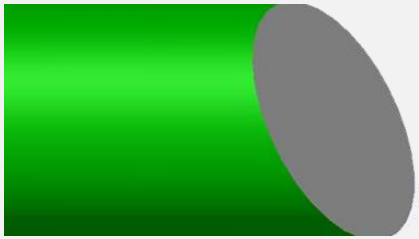
How to determine the True Shape of the oblique plane ABCD?

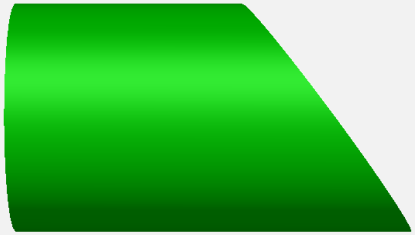
Normal View of Oblique Surfaces



Make use of the line in TL in HV common to oblique plane and principal plane?

Normal View of Oblique Surfaces

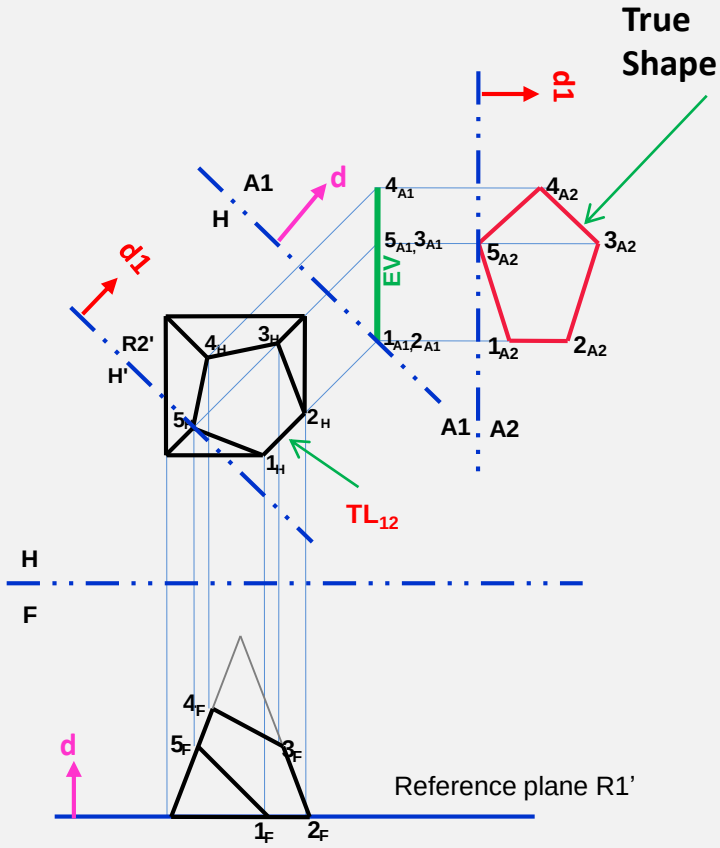




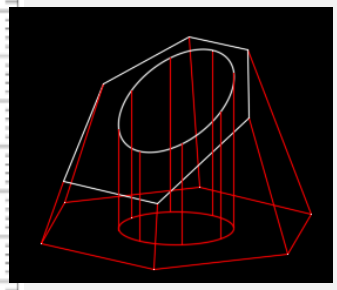
Notice distances are measured on both sides of reference plane, i.e. hinge line.

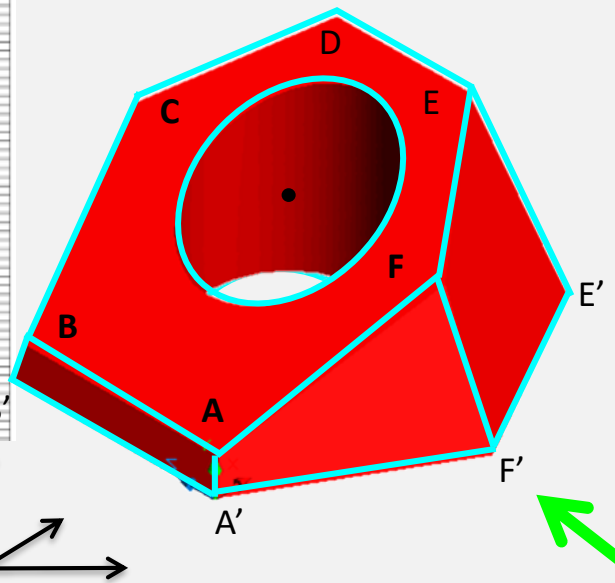
Normal View of Oblique Surfaces

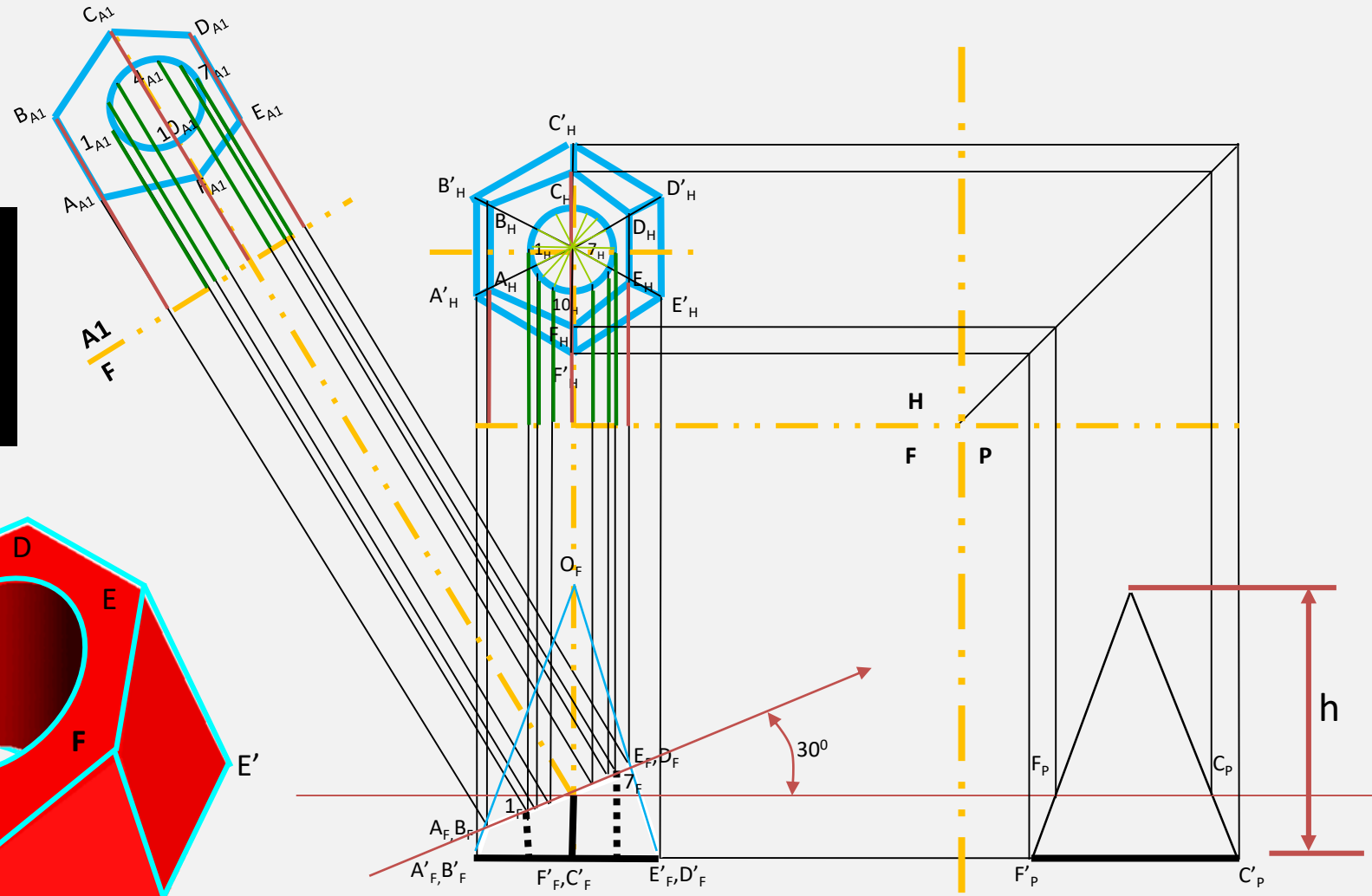
- Truncated four-faced pyramid
- Identify the line on oblique surface which is in TL in H view
- Draw hinge line perpendicular to the TL
- Obtain EV of the oblique surface in Auxiliary plane A1
- Note that a Reference Plane (R1') is used instead of the hinge line H-F
- Use EV to draw new hinge line and chose A2 Auxiliary plane for TS of oblique plane
- Similarly, a Reference Plane (R2') is used instead of the hinge line H-A1
- True surface is obtained in plane A2

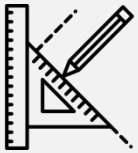


Normal Views of Oblique Surfaces









Thank you !