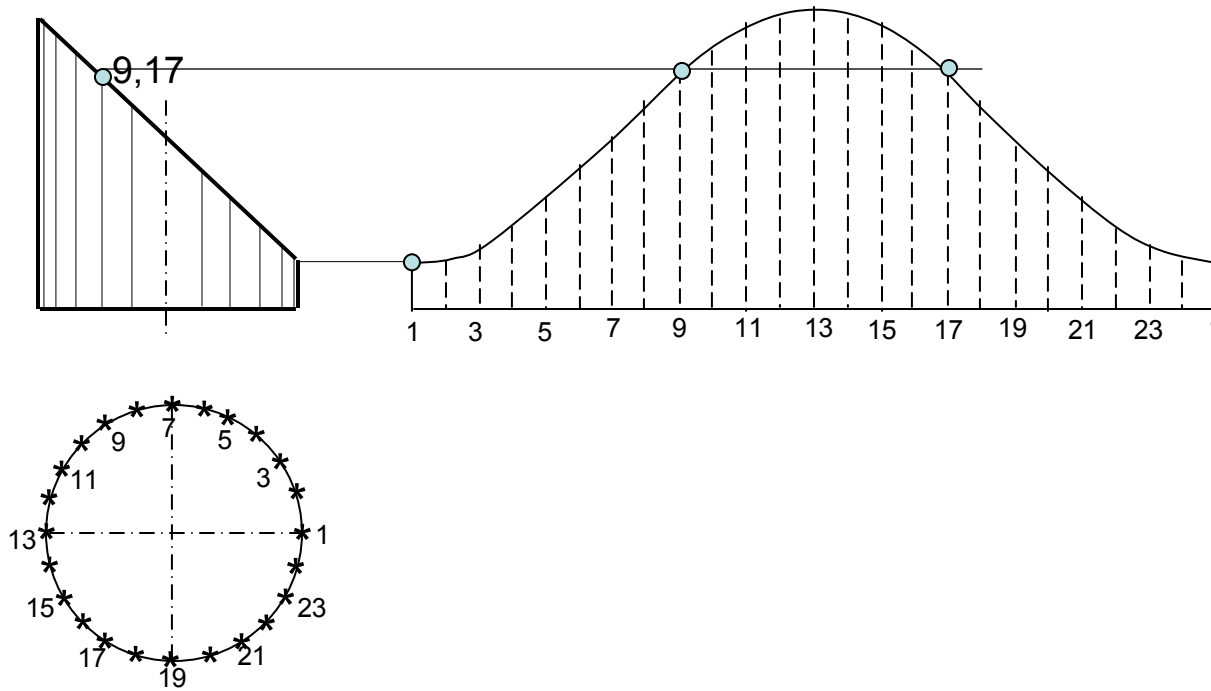


TA 101

Lecture -26

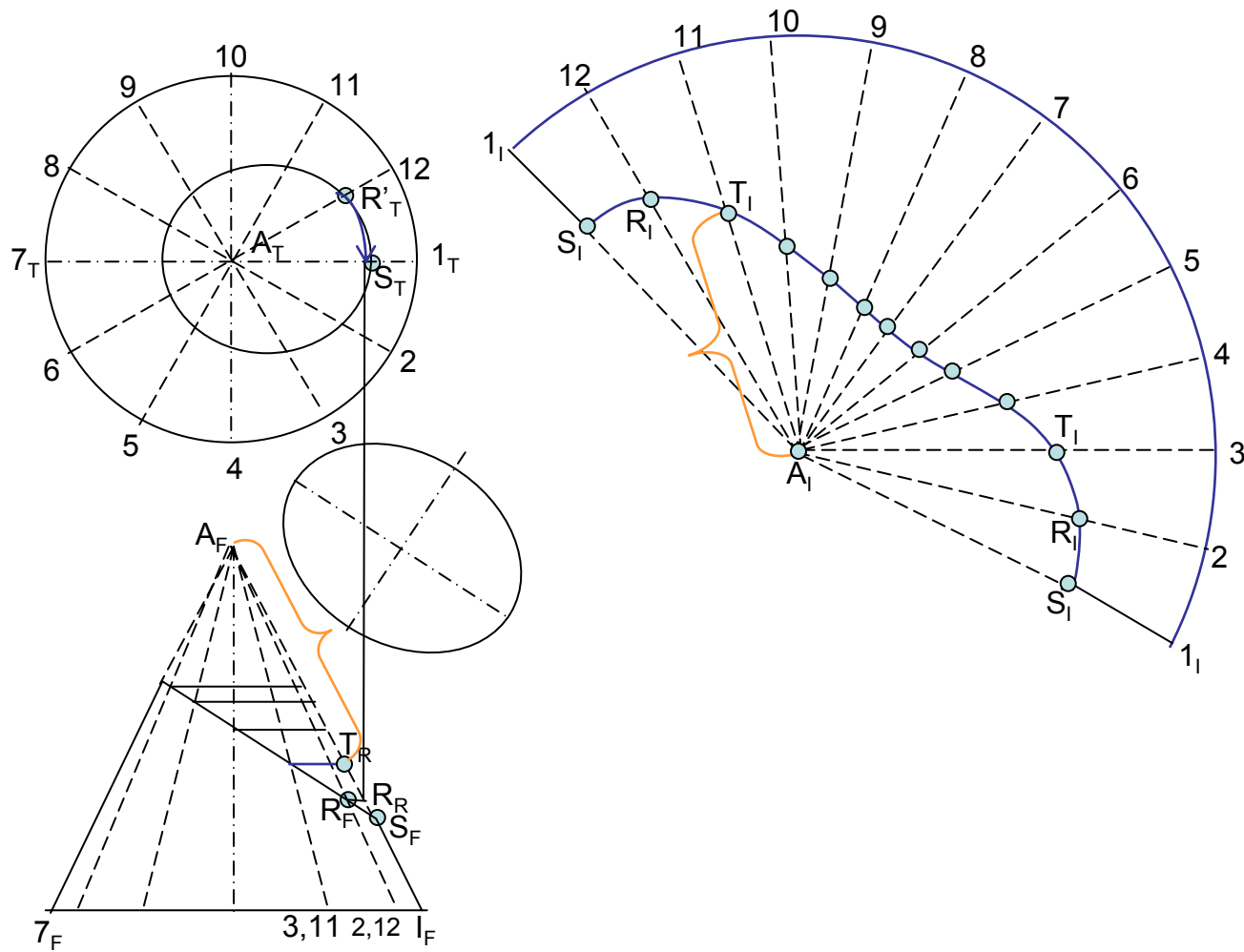
<http://home.iitk.ac.in/~mukesh/>

Development of Surfaces - II



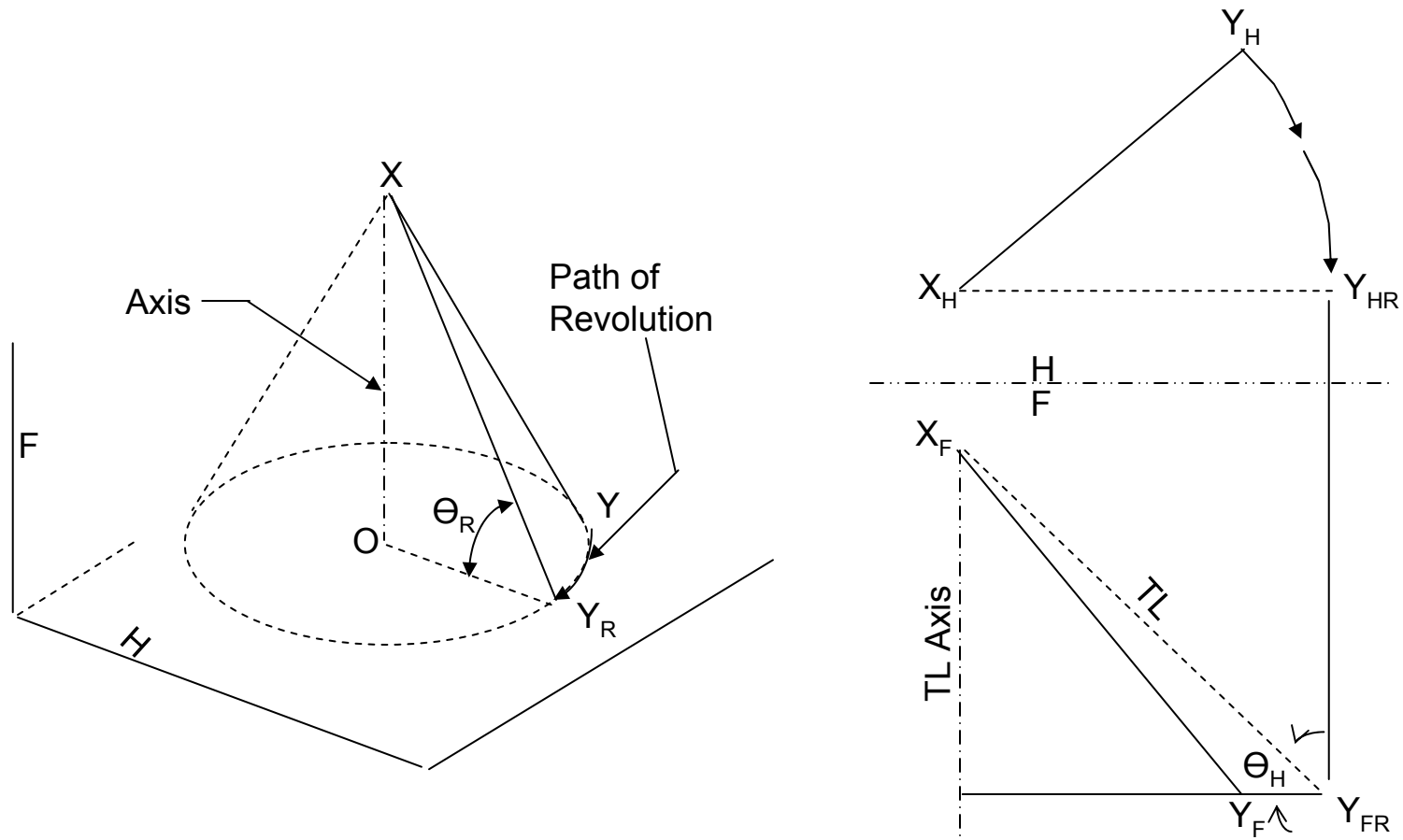
Development of Truncated Cylinder – treated as a many-sided prism

Do not forget the true shape of truncated face



Development of Truncated Cone

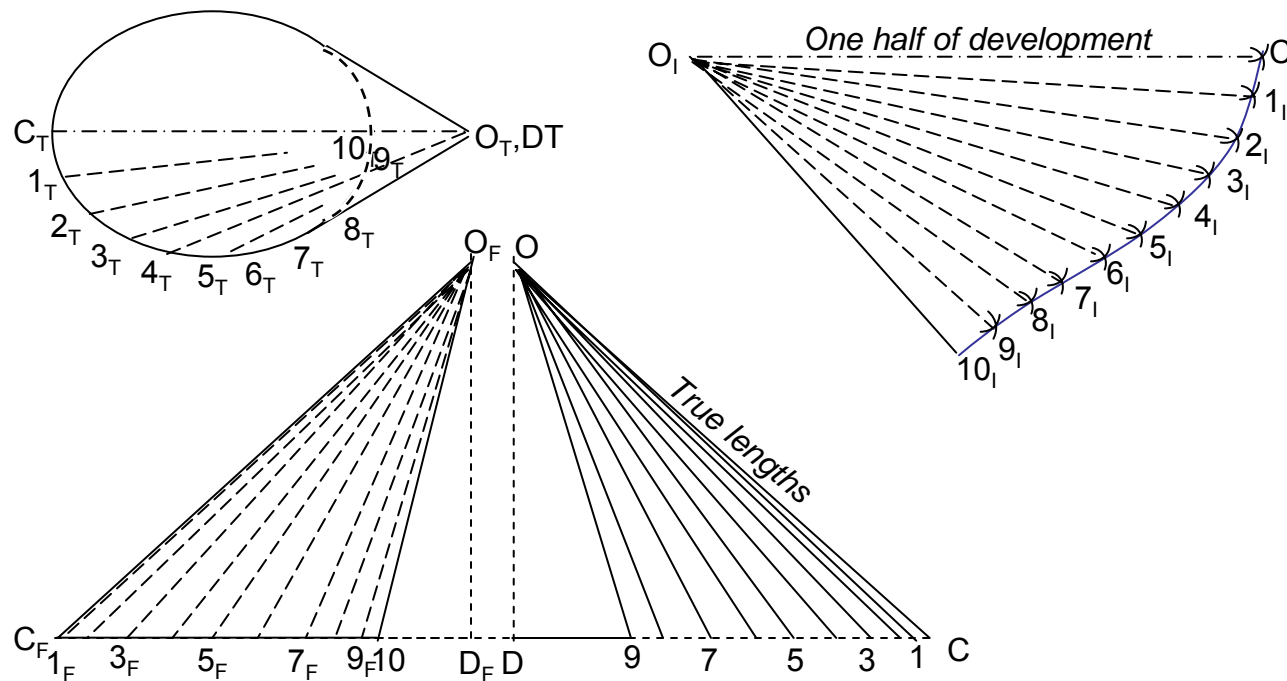
This is called method of Triangulation – for Cone equal lengths triangle



OBSERVATION

If axis is perpendicular to the plane, the hypotenuse of triangle like XOY_R will always give the TL of the line. Or, if perpendicular and base are known so is the TL.

Development of Oblique Cone – Elements are of different lengths



Which line is seen in TL? O-10 in FV – begin development by laying off O-10

Is 10-9 seen in TL, if yes proceed and mark and arc.

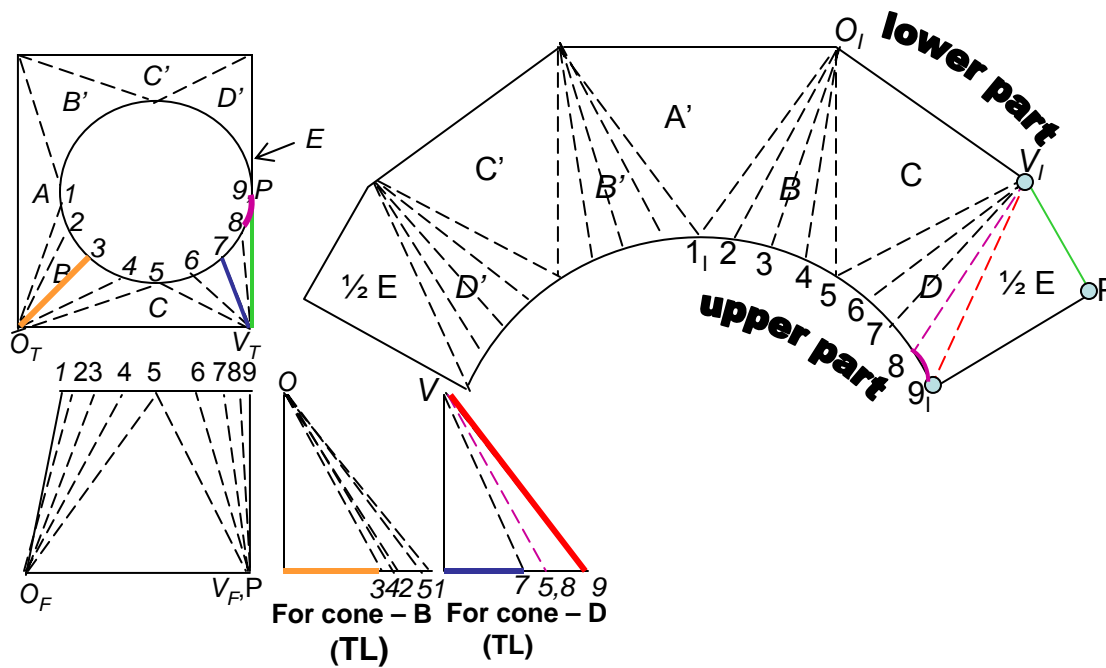
Do we know TL of O-9? No we don't.

In fact, no other element is in TL (except O-C). Find a smart way to find all lines in TL.

Recall if true altitude and base of line are known hypotenuse is the TL of line.

For line O-9 see altitude and base and get TL.

Repeat the process for all lines and find TL diagram that gives all TLs.



Development of Transition Piece – Join Cylindrical Pipe to Rectangular Pipe

The piece is composed of:

(a) 4-triangular planes (bases are sides of rectangle) (b) 4-parts of oblique cone (bases are arc of circles)

Development of Cone – Triangulation method – divide the cone in parts

Make true length diagram for each cone