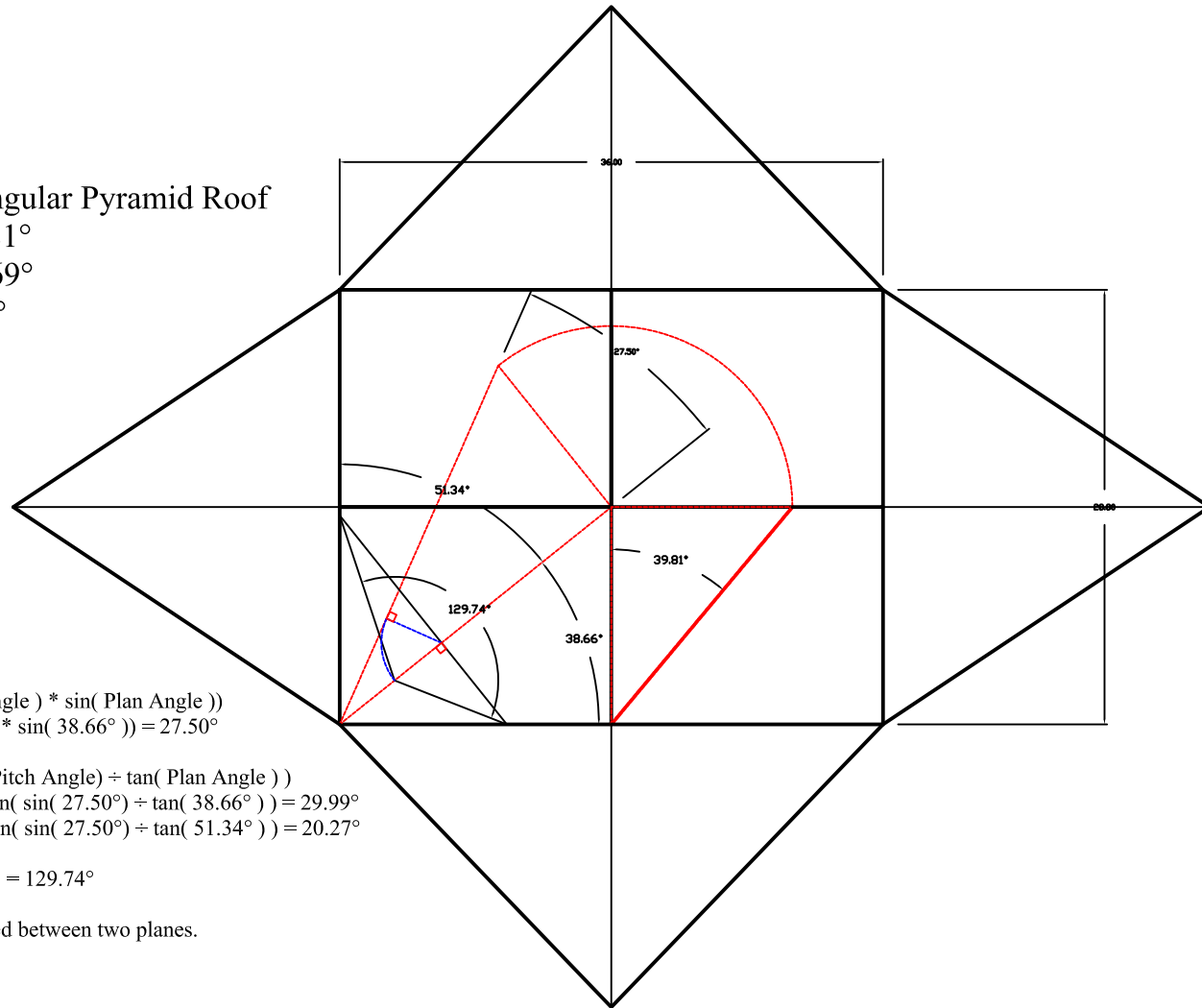


### Dihedral Angle of Rectangular Pyramid Roof

Major Pitch Angle =  $39.81^\circ$

Minor Pitch Angle =  $33.69^\circ$

Dihedral Angle =  $129.74^\circ$



Hip Pitch Angle =  $\arctan(\tan(\text{Pitch Angle}) * \sin(\text{Plan Angle}))$   
 Hip Pitch Angle =  $\arctan(\tan(39.81^\circ) * \sin(38.66^\circ)) = 27.50^\circ$

Hip Backing Angle =  $\arctan(\sin(\text{Hip Pitch Angle}) \div \tan(\text{Plan Angle}))$   
 Major Pitch Hip Backing Angle =  $\arctan(\sin(27.50^\circ) \div \tan(38.66^\circ)) = 29.99^\circ$   
 Minor Pitch Hip Backing Angle =  $\arctan(\sin(27.50^\circ) \div \tan(51.34^\circ)) = 20.27^\circ$

Dihedral Angle =  $180^\circ - 29.99^\circ - 20.27^\circ = 129.74^\circ$

The dihedral angle is the angle measured between two planes.