Tetrahedron Angles

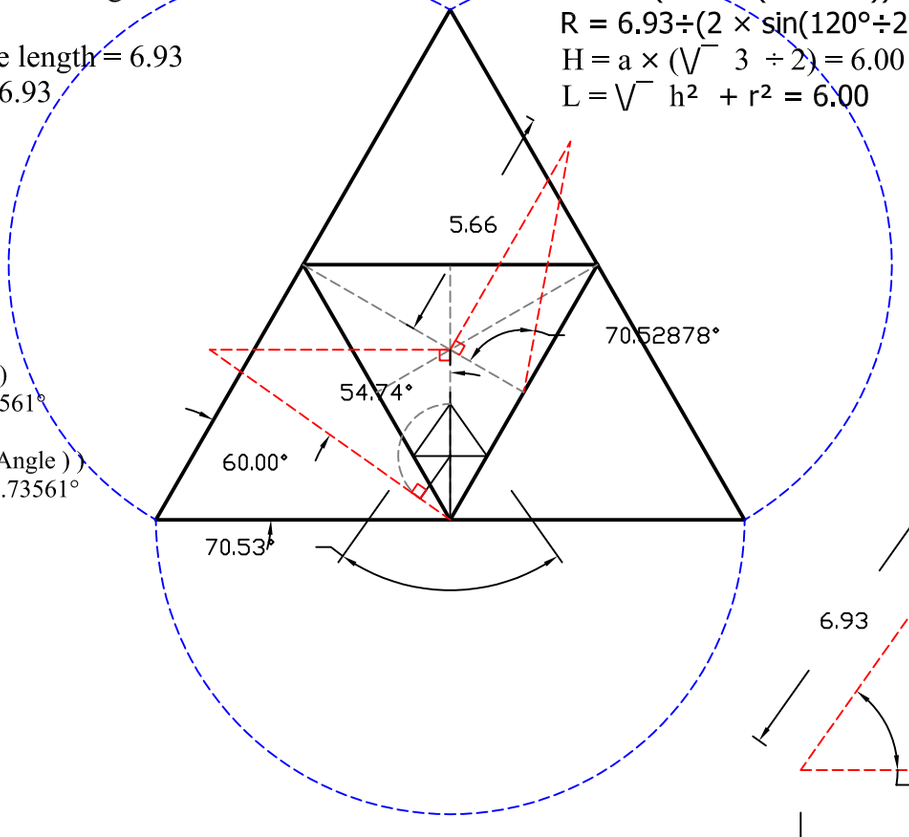
D Angle = 30.00000
A Angle = 70.52878
C Angle = 54.73561
E Angle = 30.00000
B Angle = 54.73561

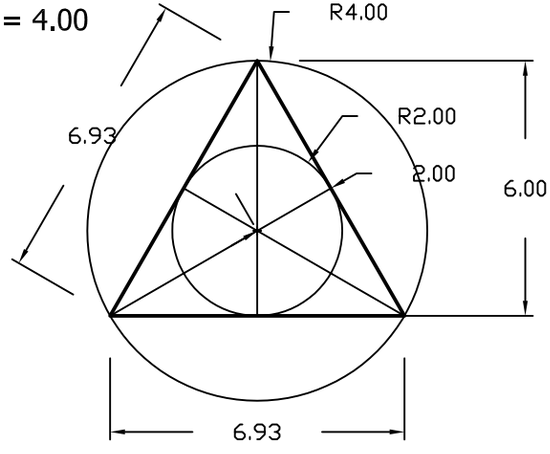
90-D Angle = 60.00000
90-A Angle = 19.47122
90-C Angle = 35.26439
90-E Angle = 60.00000
90-B Angle = 35.26439

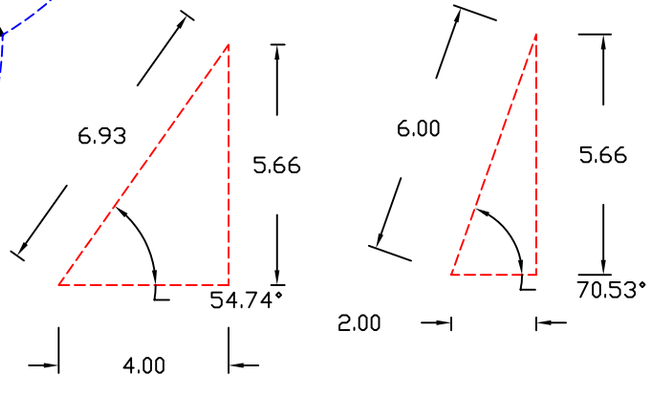
Dihedral Angle of Tetrahedron
Equilateral Triangular Pyramid
Dihedral Angle = 70.52878°

edge length = 6.93
a = 6.93

$r = a \times (\sqrt{3} \div 6) = 2.00$
$h = a \times \sqrt{(2 \div 3)} = 5.66$
$R = c \div (2 \times \sin(\text{theta} \div 2))$
$R = 6.93 \div (2 \times \sin(120° \div 2)) = 4.00$
$H = a \times (\sqrt{3} \div 2) = 6.00$
$L = \sqrt{h^2 + r^2} = 6.00$







Hip Pitch Angle = arctan(tan(Pitch Angle) * sin(Plan Angle))
Hip Pitch Angle = arctan(tan(70.52878°) * sin(30°)) = 54.73561°

Hip Backing Angle = arctan(sin(Hip Pitch Angle) ÷ tan(Plan Angle))
Hip Backing Angle = arctan(sin(54.73561°) ÷ tan(30°)) = 54.73561°

Dihedral Angle = (90° - Hip Backing Angle) * 2
Dihedral Angle = (90° - 54.73561) * 2 = 70.52878°

The dihedral angle is the angle measured between two planes..