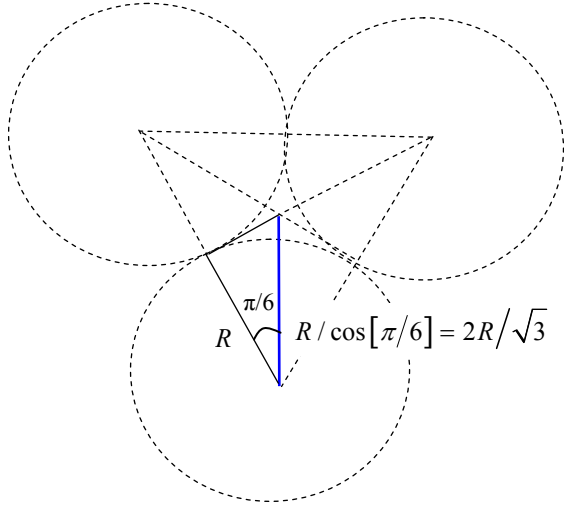


World's Fair Ornament

(forces solution notes)

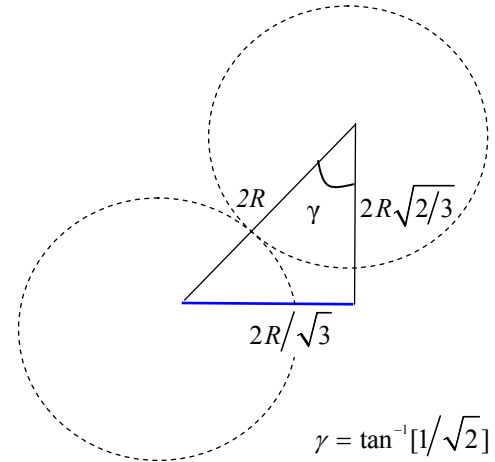
$R = \text{radius of sphere}$ $W = \text{weight of sphere} = 2\sqrt{6}$ ton-wt $T = \text{weld tension}$

I

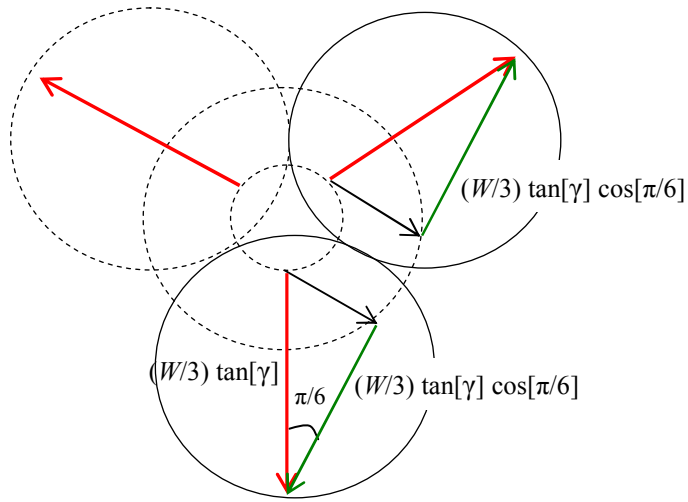


top views

II



IV



$$\begin{aligned}
 T &= 2 (W/3) \tan[\gamma] \cos[\pi/6] \\
 &= 2 (W/3) (1/\sqrt{2}) (\sqrt{3}/2) \\
 &= W/\sqrt{6} \\
 &= 2 \text{ ton-wt.}
 \end{aligned}$$

III

side views

