

3.92  
k4

$$\begin{aligned} S &= 2R^2 \sin 60^\circ \sin 75^\circ \sin 45^\circ = 2R^2 \cdot \frac{\sqrt{3}}{2} \sin 75^\circ \sin 45^\circ = 8 \cdot \frac{\sqrt{3}}{2} \sin 75^\circ \sin 45^\circ = \\ &= 4\sqrt{3} \sin 75^\circ \sin 45^\circ = 2\sqrt{3} [\cos 30^\circ - \cos 120^\circ] = 2\sqrt{3} \left[ \frac{\sqrt{3}}{2} + \frac{1}{2} \right] = 3 + \sqrt{3} \end{aligned}$$