

Conditions

$$\cos 20^\circ \cos 40^\circ \cos 60^\circ$$

Solution

$$\begin{aligned} \cos 20^\circ \cos 40^\circ \cos 60^\circ &= \frac{\cos(40^\circ - 20^\circ) + \cos(40^\circ + 20^\circ)}{2} \cos 60^\circ = \frac{\cos 20^\circ + \frac{1}{2}}{2} \cdot \frac{1}{2} = \frac{\cos 20^\circ}{4} + \frac{1}{8} \\ &\approx 0.355923155 \end{aligned}$$