

Conditions

Prove that $\cos 40^\circ \cos 50^\circ = 1$

Solution

$$\cos 40^\circ \cos 50^\circ = \frac{\cos(40^\circ + 50^\circ) + \cos(40^\circ - 50^\circ)}{2} = 0 + 0.5 \cos(40^\circ - 50^\circ) \approx 0.4924 \neq 1$$

Your equation is wrong.