α)

$$\cos\alpha+\cos\beta+\cos\gamma=2\cos\frac{\alpha+\beta}{2}\cos\frac{\alpha-\beta}{2}+1-2\cos^2\frac{\alpha+\beta}{2}=$$

$$=2\cos\frac{\alpha+\beta}{2}\left(\cos\frac{\alpha-\beta}{2}-\cos\frac{\alpha+\beta}{2}\right)+1=$$

$$=4\sin\frac{\alpha}{2}\sin\frac{\beta}{2}\sin\frac{\gamma}{2}+1$$

β)

$$\cos\alpha+\cos\beta-\cos\gamma=2\cos\frac{\alpha+\beta}{2}\cos\frac{\alpha-\beta}{2}+2\cos^2\frac{\alpha+\beta}{2}-1=$$

$$=2\cos\frac{\alpha+\beta}{2}\left(\cos\frac{\alpha-\beta}{2}+\cos\frac{\alpha+\beta}{2}\right)-1=$$

$$=4\cos\frac{\alpha}{2}\cos\frac{\beta}{2}\sin\frac{\gamma}{2}-1.$$

(Déri Zsigmond, Budapest.)

A feladatot még megoldották: Deutsch I., Haar A., Hirschfeld Gy., Kertész G., Kürti I., Petrik S., Veress G.