

$$\cos(45^\circ + \alpha) = \sin[90^\circ - (45^\circ + \alpha)] = \sin(45^\circ - \alpha),$$

$$\cos(30^\circ + \alpha) = \sin[90^\circ - (30^\circ + \alpha)] = \sin(60^\circ - \alpha),$$

tehát

$$\sin(45^\circ - \alpha) - \cos(30^\circ + \alpha) + \sin^2 30^\circ - \cos(45^\circ + \alpha) +$$

$$+ \sin(60^\circ - \alpha) + \sin^2 60^\circ = \sin^2 30^\circ + \sin^2 60^\circ = \sin^2 30^\circ + \cos^2 30^\circ = 1.$$

(Pálos Tibor, Budapest.)