

**Domaća zadaća iz kolegija
Elementarna matematika I**

14.01.2008.

1. Dokažite:

a) $\sin x + \sin 3x + \sin 7x + \sin 9x = 4 \sin 5x \cos 3x \cos x,$

b) $\cos x + \cos 3x + \cos 5x + \cos 7x = 4 \cos x \cos 2x \cos 4x,$

c) $\sin 3x = 4 \sin x \sin \left(\frac{\pi}{3} + x \right) \sin \left(\frac{\pi}{3} - x \right),$

d) $\cos 3x = 4 \cos x \cos \left(\frac{\pi}{3} + x \right) \cos \left(\frac{\pi}{3} - x \right).$