

Section 5.3

Problem 1. Solve the equation.

a) $2 \cos x + 1 = 0$

b) $\tan x - \frac{\sqrt{3}}{3} = 0$

c) $\cos^2 x = 3 \sin^2 x$

d) $2 \sin^2 2x = 1$

e) $2 \cos x \sin 2x - \sin 2x = 0$

Problem 2. Find all solutions of the equation in the interval $[0, 2\pi]$.

a) $2 \cos^2 x = 2 + \sin x$

b) $2 \cos^2 x + 3 \cos x + 1 = 0$

c) $\cos x + \sin x \tan x = 2$

d) $2 \sin^2 x - 5 \sin x + 2 = 0$

Problem 3. Solve the multiple angle equation.

a) $\cos 2x = \frac{\sqrt{3}}{2}$

b) $\sin \frac{x}{2} = -\frac{\sqrt{2}}{2}$

Homework: Read section 5.3, do #11, 19, 25, 31, 35, 39, 65, 67