

$$2\sin^2 x + \cos x + 1 = 0$$

узнаем $\sin^2(t) = 1 - \cos(t)^2$

$$2(1 - \cos^2 x) + \cos x + 1 = 0$$

$$2 - 2\cos^2 x + \cos x + 1 = 0$$

$$3 - 2\cos^2 x + \cos x = 0$$

$$t = \cos x$$

$$3 - 2t^2 + t = 0$$

$$-2t^2 + t + 3 = 0$$

$$2t^2 - t - 3 = 0$$

$$D = 1 - 4 \cdot 2(-3) = 1 + 24 = 25$$

$$t_1 = \frac{1 - 5}{4} = -\frac{4}{4} = -1.$$

$$t_2 = \frac{1 + 5}{4} = \frac{6}{4} = \frac{3}{2} = 1\frac{1}{2} = 1.5$$

$$\cos x = -1 \quad \cos x = \frac{3}{2}$$

$$x_0 = \pi + 2\pi n; \quad x_0 \notin \mathbb{R}.$$