



$$5 + 2\sin 2x - 5\cos x = 5\sin x$$

$$2 + 4\sin x \cos x = 5(\cos x + \sin x) - 3$$

$$2(1 + 2\sin x \cos x) = 5(\cos x + \sin x) - 3$$

$$2(\sin^2 x + 2\sin x \cos x + \cos^2 x) = 5(\cos x + \sin x) - 3$$

$$2(\sin x + \cos x)^2 = 5(\cos x + \sin x) - 3$$

$$(\cos x + \sin x) = t$$

$$2t^2 - 5t + 3 = 0$$

$$t = 1 \quad t = 3/2$$

$$\sin x + \cos x = 1$$

$$\sqrt{2}(\frac{1}{\sqrt{2}} \sin x + \frac{1}{\sqrt{2}} \cos x) = \sqrt{2}(\sin x \cos \frac{\pi}{4} + \cos x \sin \frac{\pi}{4}) = \sqrt{2} \sin(x + \frac{\pi}{4})$$

$$\sqrt{2} \sin(x + \frac{\pi}{4}) = 1$$

$$\sin(x + \frac{\pi}{4}) = \frac{1}{\sqrt{2}}$$

$$x + \frac{\pi}{4} = \frac{\pi}{4} + 2\pi k$$

$$\underline{x = 2\pi k}$$

$$x + \frac{\pi}{4} = \frac{3\pi}{4} + 2\pi k$$

$$\underline{x = \frac{\pi}{2} + 2\pi k}$$

$$\sin x + \cos x = \frac{3}{2}$$

$$\sqrt{2} \sin(x + \frac{\pi}{4}) = \frac{3}{2}$$

$$\sin(x + \frac{\pi}{4}) = \frac{3}{2\sqrt{2}} \approx 1.06$$

нет решений