



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

$$5+4\sin x \cdot \cos x = 5(\sin x + \cos x)$$

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

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

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

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

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

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

$$x_1 = 3/2$$

$$x_2 = 1$$

$$\sin x + \cos x = 3/2$$

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

$$\sin x + \cos x = \sqrt{2} \cdot (\sin x \cdot 1/\sqrt{2} + \cos x \cdot 1/\sqrt{2})$$

$$\cos y = 1/\sqrt{2}$$

$$\sin y = 1/\sqrt{2}$$

$$y = \pi/4$$

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

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

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

$$x + \pi/4 = \pi/4 + 2\pi k$$

$$x + \pi/4 = 3\pi/4 + 2\pi k$$

$$x = 2\pi k$$

$$x = \pi/2 + 2\pi k$$

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

Ответ: $2\pi k$; $\pi/2 + 2\pi k$