

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

$$\sin(P\cos x) - \cos(P\sin x) = 0$$

$$\sin(P\cos x) - \sin(P/2 - P\sin x) = 0$$

$$2 \cdot \cos\left(\frac{P\cos x + P/2 - P\sin x}{2}\right) \cdot \sin\left(\frac{P\cos x - P/2 + P\sin x}{2}\right) = 0$$

$$\cos\left(\frac{P\cos x + P/2 - P\sin x}{2}\right) = 0$$

$$\frac{P\cos x + P/2 - P\sin x}{2} = p/2 + pk$$

$$\frac{\cos x + 1/2 - \sin x}{2} = 1/2 + k$$

$$2\cos x + 1 - 2\sin x = 2 + 4k$$

$$2\cos x - 2\sin x = 1 + 4k$$

$$\cos x - \sin x = (1 + 4k)/2$$

$$\sin x - \cos x = -(1 + 4k)/2$$

$$\sqrt{2}(\cos a \sin x - \cos x \sin a) = -(1 + 4k)/2$$

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

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

$$a = P/4$$

$$\sqrt{2}(\sin(x - a)) = -(1 + 4k)/2$$

$$\sin(x - P/4) = -(1 + 4k)/2\sqrt{2}$$

$$-1 \leq -(1 + 4k)/2\sqrt{2} \leq 1$$

$$-2\sqrt{2} \leq -1 - 4k \leq 2\sqrt{2}$$

$$-2\sqrt{2} + 1 \leq -4k \leq 2\sqrt{2} + 1$$

$$\sqrt{2}/2 - 1/4 \geq k \geq -\sqrt{2}/2 - 1/4$$

$$k = 0$$

$$\sin(x - P/4) = -1/2\sqrt{2}$$

$$x - p/4 = \arcsin(-1/2\sqrt{2}) + 2pn$$

$$x - p/4 = p - \arcsin(-1/2\sqrt{2}) + 2pn$$

$$x_1 = \arcsin(-1/2\sqrt{2}) + 2pn + p/4$$

$$x_2 = 3p/4 - \arcsin(-1/2\sqrt{2}) + 2pn$$

$$a \sin x + b \cos x$$

$$59 \cdot 59 = (60 - 1)^2 = 3600 - 120 + 1 = 3481$$

$$25^2 = 625$$

$$55^2 = 3025 \quad 5 \cdot 6 \quad 25$$

$$75^2 = 5625$$

$$\sin\left(\frac{P\cos x - P/2 + P\sin x}{2}\right) = 0$$

$$\frac{P\cos x - P/2 + P\sin x}{2} = pk \quad | \cdot 2/p$$

$$\cos x - 1/2 + 2\sin x = 2k \quad | \cdot 2$$

$$2\cos x - 1 + 2\sin x = 4k$$

$$2\cos x + 2\sin x = 4k + 1 \quad | /2$$

$$\sin x + \cos x = 2k + 1/2$$

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

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

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

$$a = P/4$$

$$\sqrt{2}(\sin(x + P/4)) = 2k + 1/2 \quad | / \sqrt{2}$$

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

$$-1 \leq (2k + 1/2)/\sqrt{2} \leq 1$$

$$-\sqrt{2} \leq 2k + 1/2 \leq \sqrt{2}$$

$$-\sqrt{2} - 1/2 \leq 2k \leq \sqrt{2} - 1/2$$

$$(-\sqrt{2} - 1/2)/2 \leq k \leq (\sqrt{2} - 1/2)/2$$

$$k = 0$$

$$x + p/4 = \arcsin(1/2\sqrt{2}) + 2pn$$

$$x + p/4 = p - \arcsin(1/2\sqrt{2}) + 2pn$$

$$x_1 = \arcsin(1/2\sqrt{2}) - p/4 + 2pn$$

$$x_2 = 3p/4 - \arcsin(1/2\sqrt{2}) + 2pn$$