

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

$$P \cdot \cos x = t$$

$$P \cdot \sin x = k$$

$$\sin t = \cos k$$

$$\sin t - \cos k = 0$$

$$\cos k = \sin(P/2 - k)$$

$$\sin t - \sin(P/2 - k) = 0$$

$$\sin q - \sin h = 2 \cdot \sin((q-h)/2) \cdot \cos((q+h)/2)$$

$$\sin t - \sin(P/2 - k) = 2 \cdot \sin((t - P/2 + k)/2) \cdot \cos((t + P/2 - k)/2)$$

$$2 \cdot \sin((t - P/2 + k)/2) \cdot \cos((t + P/2 - k)/2) = 0$$

$$\sin((t - P/2 + k)/2) \cdot \cos((t + P/2 - k)/2) = 0$$

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$$\sin((t - P/2 + k)/2) = 0$$

$$(t - P/2 + k)/2 = Pn$$

$$t - P/2 + k = 2Pn$$

$$t + k = 2Pn + P/2$$

$$P \cdot \cos x + P \cdot \sin x = 2Pn + P/2$$

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

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

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

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

$$t = P/4$$

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

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

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

$$n = 0$$

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

$$x + P/4 = \arcsin(1/2\sqrt{2}) + 2Pn$$

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

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

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

$$\cos((t + P/2 - k)/2) = 0$$

$$(t + P/2 - k)/2 = P/2 + Pn$$

$$t + P/2 - k = P + 2Pn$$

$$t - k = P/2 + 2Pn$$

$$P \cdot \cos x - P \cdot \sin x = P/2 + 2Pn$$

$$\cos x - \sin x = 2n + 1/2$$

$$\sin x - \cos x = -2n - 1/2$$

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

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

$$-1/\sqrt{2} = \sin t$$

$$t = 7P/4$$

$$\sqrt{2} \cdot (\sin x \cdot \cos 7P/4 + \sin 7P/4 \cdot \cos x) = -2n - 1/2$$

$$\sin(x + 7P/4) = -(2n + 1/2) / \sqrt{2}$$

$$n = 0$$

$$\sin(x + 7P/4) = -1/2\sqrt{2}$$

$$x + 7P/4 = \arcsin(-1/2\sqrt{2})$$

$$x + 7P/4 = P - \arcsin(-1/2\sqrt{2})$$

$$x_1 = \arcsin(-1/2\sqrt{2}) - 7P/4$$

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

Ответ: $\arcsin(1/2\sqrt{2}) + 2Pn - P/4$; $3P/4 - \arcsin(1/2\sqrt{2}) + 2Pn$; $\arcsin(-1/2\sqrt{2}) - 7P/4$;
 $-\arcsin(-1/2\sqrt{2}) - 3P/4$