

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

$$2 \sin^2 x + \sin(x^2) = 1$$

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

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

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

$$\sin\left(\frac{P/4 - (x^2)/2 + x}{2}\right) \sin\left(\frac{P/4 - (x^2)/2 - x}{2}\right) = 0$$

$$\sin\left(\frac{P/4 - (x^2)/2 + x}{2}\right) = 0$$

$$\frac{P}{4} - \frac{(x^2)}{2} + x = Pk$$

$$x^2 - 2x = -2Pk + P/2$$

$$x^2 - 2x + 1 = -2Pk + P/2 + 1$$

$$(x-1)^2 = -2Pk + P/2 + 1$$

$$x-1 = \pm \sqrt{-2Pk + P/2 + 1}$$

$$x = \pm \sqrt{-2Pk + P/2 + 1} - 1 \quad k \leq 0$$

$$\sin\left(\frac{P/4 - (x^2)/2 - x}{2}\right) = 0$$

$$x^2 + 2x = P/2 - 2Pk$$

$$x^2 + 2x + 1 = P/2 - 2Pk + 1$$

$$(x+1)^2 = P/2 - 2Pk + 1$$

$$x = \pm \sqrt{P/2 - 2Pk + 1} - 1 \quad k \leq 0$$

$$\text{Ответ: } \pm \sqrt{-2Pk + P/2 + 1} - 1;$$

$$\pm \sqrt{P/2 - 2Pk + 1} - 1 \quad k \leq 0$$

$$\operatorname{tg}\left(\frac{P}{2}(\cos x)\right) = \operatorname{ctg}\left(\frac{P}{2}(\sin x)\right)$$

$$\frac{\cos(P/2(\sin x))}{\sin(P/2(\sin x))} = \frac{\sin(P/2(\cos x))}{\cos(P/2(\cos x))}$$

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

$$\{\cos(y)\cos(u) - \sin(y)\sin(u)\} / \cos(y)\sin(u) = 0$$

$$\cos(y+u) / \cos(y)\sin(u) = 0$$

$$\cos(y+u) = 0$$

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

$$P/2(\cos x) + P/2(\sin x) = P/2 + Pk$$

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

$$\sqrt{2}[\cos x \cdot 1/\sqrt{2} + \sin x \cdot 1/\sqrt{2}] = 1 + 2k$$

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

$$\sqrt{2} \sin[x + P/4] = 1 + 2k$$

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

$$k = -1, 0$$

$$\sin[x + P/4] = 1/\sqrt{2}$$

$$x + P/4 = P/4 + 2Pk$$

$$x = 2Pk$$

$$x + P/4 = P - P/2 + 2Pk$$

$$x = 2P/4 + 2Pk$$

$$x = P/2 + 2Pk$$

$$\sin[x + P/4] = -1/\sqrt{2}$$

$$x + P/4 = 5P/4 + 2Pk$$

$$x = P + 2Pk$$

$$x + P/4 = P - 5P/4 + 2Pk$$

$$x = 2Pk - P/2$$

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

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

$$t = P/4$$

$$P/2(\sin x) = u$$

$$P/2(\cos x) = y$$

$$\cos(y)\sin(u) \neq 0$$

$$x = 2pk$$

$$\cos(P/2(\cos(2pk))) = \cos(p/2 \cdot 1) = 0$$

$$x = P/2 + 2Pk$$

$$\cos(P/2(\cos(P/2 + 2Pk))) = \cos(p/2 \cdot 0) = \cos(0) = 1$$

$$\sin(P/2(\sin(P/2 + 2Pk))) = \sin(P/2) = 1$$

$$x = P + 2pk$$

$$\cos(P/2(\cos(P + 2pk))) = \cos(p/2 \cdot (-1)) = 0$$

$$x = -P/2 + 2Pk$$

$$\cos(P/2(\cos(-P/2 + 2Pk))) = \cos(p/2 \cdot 0) = \cos(0) = 1$$

$$\sin(P/2(\sin(-P/2 + 2Pk))) = \sin(P/2 \cdot -1) = -1$$

$$\text{OTBET: } P/2 + Pk$$