

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

$$x^2 + 1 = t$$

$$1 + \cos t = \sin^2 t$$

$$1 + \cos t = 1 - \cos^2 t$$

$$\cos^2 t + \cos t = 0$$

$$\cos t = k$$

$$k^2 + k = 0$$

$$k_1 = 0$$

$$k_2 = -1$$

$$\cos t = 0$$

$$t = \pi/2 + \pi n$$

$$\cos t = -1$$

$$t = \pi + 2\pi n$$

$$x^2 + 1 = \pi/2 + \pi n$$

$$x = \pm \sqrt{\pi/2 + \pi n - 1}$$

$$n \geq 0$$

$$x^2 + 1 = \pi + 2\pi n$$

$$x = \pm \sqrt{\pi + 2\pi n - 1}$$

$$n \geq 0$$

Ответ: $x = \pm \sqrt{\pi/2 + \pi n - 1} \quad n \geq 0$; $x = \pm \sqrt{\pi + 2\pi n - 1} \quad n \geq 0$.

$$x^2 = 1$$
$$x = \pm 1$$

