

$$\sin x + \cos y = 0$$
$$\sin^2 x + \cos^2 y = 1$$

$$\sin x = a$$
$$\cos y = b$$
$$a + b = 0$$
$$a^2 + b^2 = 1$$
$$a = -b$$
$$(-b)^2 + b^2 = 1$$
$$2b^2 = 1$$
$$b^2 = \frac{1}{2}$$

$$b = \frac{1}{\sqrt{2}}$$
$$a = -\frac{1}{\sqrt{2}}$$

$$\sin x = -\frac{1}{\sqrt{2}}$$
$$\cos y = \frac{1}{\sqrt{2}}$$

$$x = \frac{5\pi}{4} + 2\pi k$$
$$x = \frac{7\pi}{4} + 2\pi k$$
$$y = \frac{\pi}{4} + 2\pi n$$
$$y = \frac{7\pi}{4} + 2\pi n$$

$$b = -\frac{1}{\sqrt{2}}$$
$$a = \frac{1}{\sqrt{2}}$$

$$\sin x = \frac{1}{\sqrt{2}}$$
$$\cos y = -\frac{1}{\sqrt{2}}$$

$$x = \frac{\pi}{4} + 2\pi k$$
$$x = \frac{3\pi}{4} + 2\pi k$$
$$y = \frac{3\pi}{4} + 2\pi k$$
$$y = \frac{5\pi}{4} + 2\pi k$$

Ответ:  $(\frac{5\pi}{4} + 2\pi k; \frac{\pi}{4} + 2\pi n); (\frac{5\pi}{4} + 2\pi k; \frac{7\pi}{4} + 2\pi n); (\frac{7\pi}{4} + 2\pi k; \frac{\pi}{4} + 2\pi n); (\frac{7\pi}{4} + 2\pi k; \frac{7\pi}{4} + 2\pi n);$   
 $(\frac{\pi}{4} + 2\pi k; \frac{3\pi}{4} + 2\pi k); (\frac{\pi}{4} + 2\pi k; \frac{5\pi}{4} + 2\pi k); (\frac{3\pi}{4} + 2\pi k; \frac{3\pi}{4} + 2\pi k); (\frac{3\pi}{4} + 2\pi k; \frac{5\pi}{4} + 2\pi k);$