

2.25
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$$\begin{cases} x+y = \frac{5\pi}{6} \\ \tan x \cdot \tan y = -1 \end{cases}$$

$$\rightarrow \begin{cases} x = \frac{5\pi}{6} - y \\ \tan\left(\frac{5\pi}{6} - y\right) \tan y = -1 \end{cases}$$

$$\frac{\tan\left(\frac{5\pi}{6}\right) - \tan y}{1 + \tan\left(\frac{5\pi}{6}\right) \tan y} \cdot \tan y = -1$$

$$\frac{-\frac{1}{\sqrt{3}} - \tan y}{1 - \frac{1}{\sqrt{3}} \tan y} \cdot \tan y = -1$$

$$\frac{-1 - \sqrt{3} \tan y}{\sqrt{3} - \tan y} \cdot \tan y = -1$$

$$\frac{(1 + \sqrt{3} \tan y) \tan y}{\sqrt{3} - \tan y} = 1$$

$$\tan y + \sqrt{3} \tan^2 y = \sqrt{3} - \tan y \rightarrow$$

$$\sqrt{3} \tan^2 y + 2 \tan y - \sqrt{3} = 0$$

$$\tan y = -\sqrt{3} \rightarrow$$

$$\tan y = \frac{1}{\sqrt{3}} \rightarrow$$

$$\boxed{\begin{array}{l} y = -\frac{\pi}{3} + \pi k \rightarrow x = \frac{7\pi}{6} - \pi k \\ y = \frac{\pi}{6} + \pi k \rightarrow x = \frac{2\pi}{3} - \pi k \end{array}}$$