



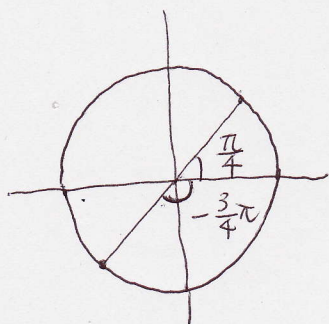
$-\frac{\pi}{2} < x < \frac{\pi}{2}$ ,  $-\frac{\pi}{2} < y < \frac{\pi}{2}$ ,  $\tan x = \frac{1}{2}$ ,  $\tan y = \frac{1}{3}$  のとき,  $x+y$  はいくらになるか。 [杏林大]

$$\begin{aligned}
 &-\frac{\pi}{2} < x < \frac{\pi}{2} \\
 +) &-\frac{\pi}{2} < y < \frac{\pi}{2} \\
 \hline
 &-\pi < x+y < \pi
 \end{aligned}$$

$$\begin{aligned}
 \tan(x+y) &= \frac{\tan x + \tan y}{1 - \tan x \tan y} \\
 &= \frac{\frac{1}{2} + \frac{1}{3}}{1 - \frac{1}{2} \cdot \frac{1}{3}} \\
 &= 1
 \end{aligned}$$

∴

$$\tan(x+y) = 1$$



$$x+y \text{ は } \frac{\pi}{4}, -\frac{3\pi}{4}$$

