kyokuza2

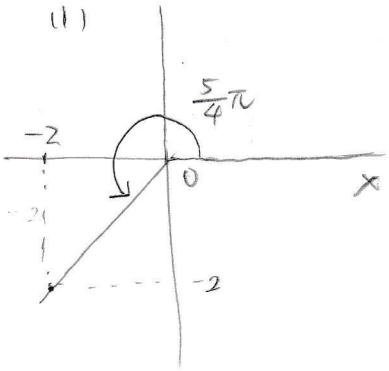
直交座標が次のような点の極座標 $(r,\ \theta)$ を求めよ。ただし, $0 \leqq \theta < 2\pi$ とする。

(1) $(-2,\ -2)$

(2) $(\sqrt{3},\ 1)$

(3) $(0,\ 5)$

(1)

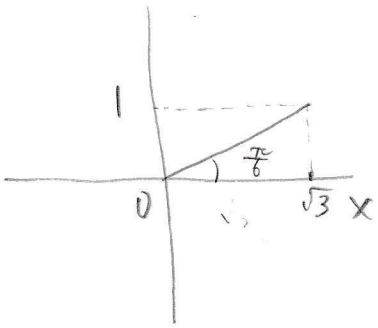


$\theta = \frac{\pi}{4}$

$r = \sqrt{(-2)^2 + 2^2} = 2\sqrt{2}$

$\left(2\sqrt{2},\ \frac{5}{4}\pi\right)$

(2)

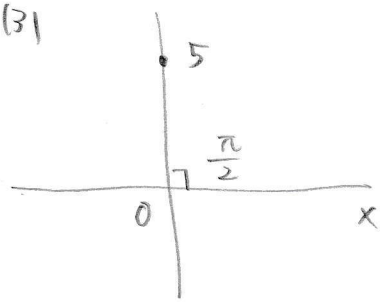


$\theta = \frac{\pi}{6}$

$r = \sqrt{1^2 + (\sqrt{3})^2} = 2$

$\left(2,\ \frac{\pi}{6}\right)$

(3)



$r = 5$

$\theta = \frac{\pi}{2}$

$\left(5,\ \frac{\pi}{2}\right)$