

# 10. minitest MAT2

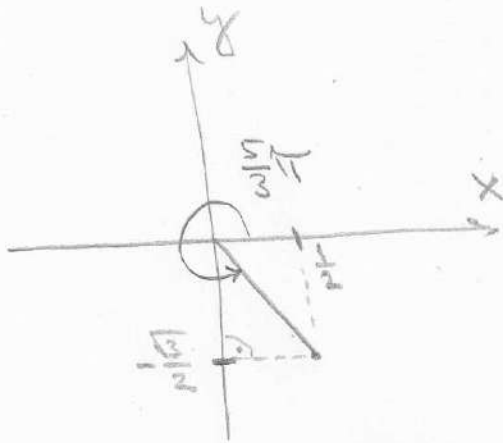
24. 3. 2025

Převeďte bod z polárních souřadnic do kartézských a naopak.

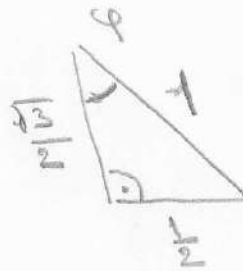
a)  $[1, \frac{5}{3}\pi]_p$

b)  $[-1, -1]_k$

a)



$$\varphi = \frac{5}{3}\pi - \frac{3}{2}\pi = \frac{10-9}{6}\pi = \frac{\pi}{6}$$

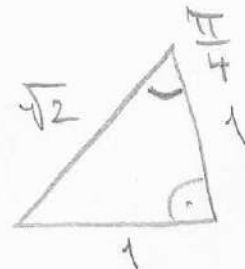
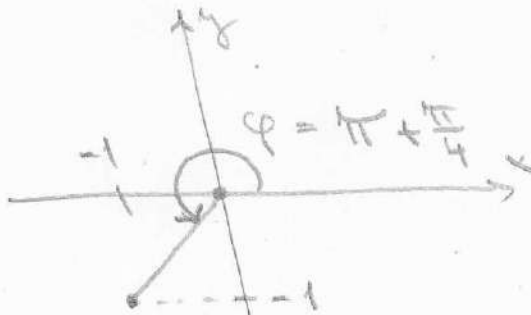


$$\cos \frac{\pi}{6} = \frac{\sqrt{3}}{2}$$

$$\sin \frac{\pi}{6} = \frac{1}{2}$$

$$\left[ 1, \frac{5}{3}\pi \right]_p = \left[ \frac{1}{2}, -\frac{\sqrt{3}}{2} \right]_k$$

b)



$$\left[ -1, -1 \right]_k = \left[ \sqrt{2}, \frac{5}{4}\pi \right]_p$$