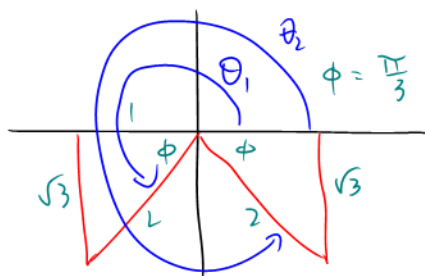


Practice Problems

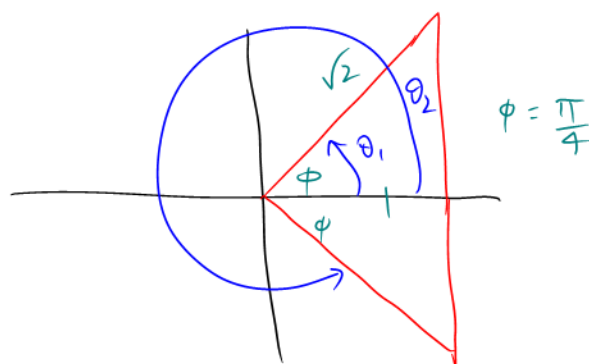
Determine the angles of rotation, θ , for $0 \leq \theta \leq 2\pi$:

a) $\sin(\theta) = -\frac{\sqrt{3}}{2}$ Q3, Q4



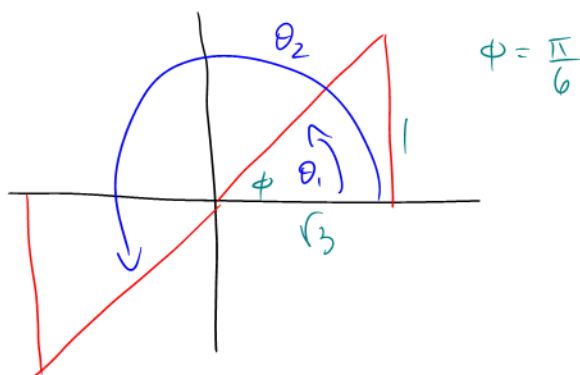
$\therefore \theta_1 = \frac{4\pi}{3}, \theta_2 = \frac{5\pi}{3}$

b) $\sec(\theta) = \sqrt{2} \Rightarrow \cos(\theta) = \frac{1}{\sqrt{2}}$ Q1, Q4



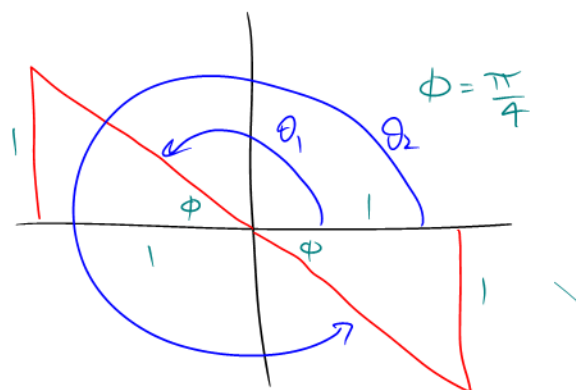
$\therefore \theta_1 = \frac{\pi}{4}, \theta_2 = \frac{7\pi}{4}$

c) $\tan(\theta) = \frac{1}{\sqrt{3}}$ Q1, Q3



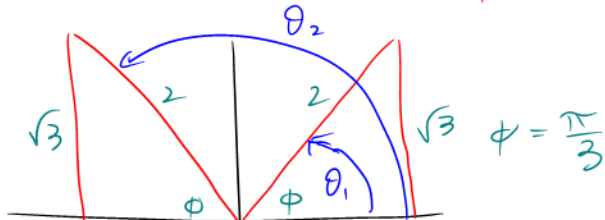
$\therefore \theta_1 = \frac{\pi}{6}, \theta_2 = \frac{7\pi}{6}$

d) $\cot(\theta) = -1 \Rightarrow \tan(\theta) = -1$ Q2, Q4



$\therefore \theta_1 = \frac{3\pi}{4}, \theta_2 = \frac{7\pi}{4}$

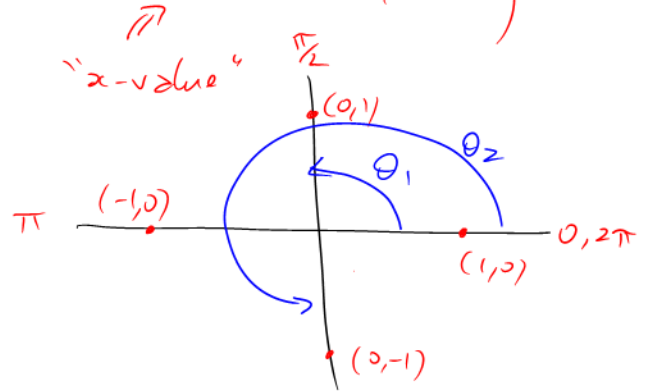
e) $\csc(\theta) = \frac{2}{\sqrt{3}} \Rightarrow \sin(\theta) = \frac{\sqrt{3}}{2}$
Q1, Q2



$\theta_1 = \frac{\pi}{3}, \theta_2 = \frac{2\pi}{3}$

f) $\cos(\theta) = 0$

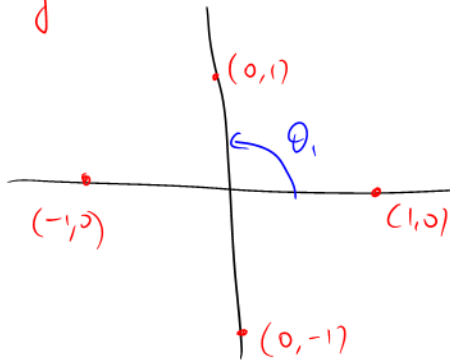
axis angle



$\therefore \theta_1 = \frac{\pi}{2}, \theta_2 = \frac{3\pi}{2}$

g) $\sin(\theta) = 1$ *axis angle*

"y-value"



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