

104. Cont

c. $\sin^2 x - \sin x = 2$

$\sin^2 x - \sin x - 2 = 0$

$\sin x = \frac{+1 \pm \sqrt{1+8}}{2}$

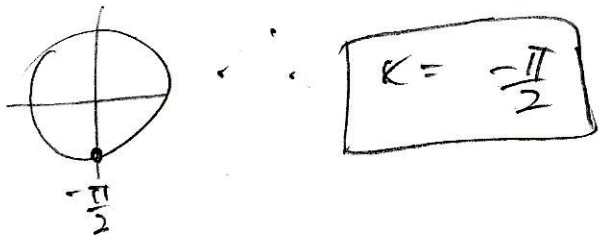
$= \frac{1 \pm 3}{2} \rightarrow 2$
 $\rightarrow -1$

Uma vez que $-1 \leq \sin x \leq 1$
 nós devemos descartar
 a solução $\sin x = 2$.

Portanto:

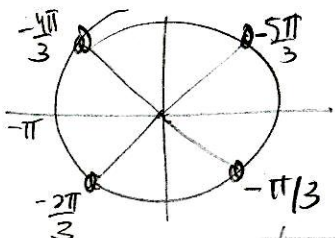
$\sin x = -1$

$\rightarrow x = -\frac{\pi}{2} \in [-\pi, 0]$



d. $\sin^2 x = \frac{3}{4}$

$\sin x = \pm \frac{\sqrt{3}}{2}$



$x = -\frac{2\pi}{3}, -\frac{\pi}{3}$

e. $(2 \cos x - 1)^2 = 9$

$2 \cos x - 1 = \pm 3$

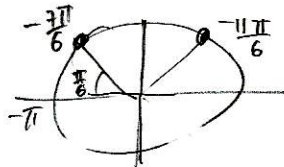
há dois casos:

i) $2 \cos x - 1 = 3$

$2 \cos x = 4$

$\cos x = 2$

$\sin x = \frac{1}{2} \Rightarrow x = -\frac{7\pi}{6}, -\frac{11\pi}{6}$



$x \notin [-\pi, 0]$

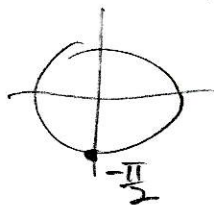
ii) $2 \cos x - 1 = -3$

$2 \cos x = -2$

$\cos x = -1$

$\sin x = -1$

$x = -\frac{\pi}{2} \in [-\pi, 0]$



$x = -\frac{\pi}{2}$