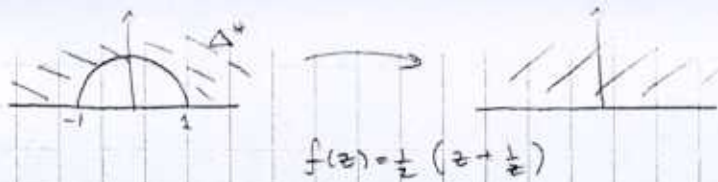


P7] (i)

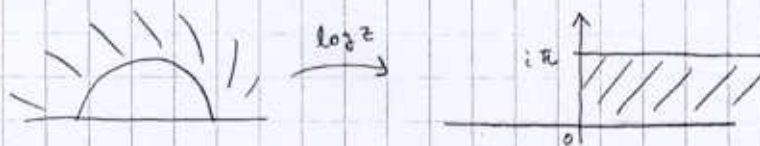


(ii)

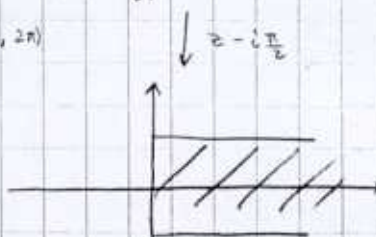


(En clases vimos como definir f^{-1})

$$f^{-1}: \mathbb{C} \setminus [-1, 1] \rightarrow \mathbb{C} \setminus [0, 1)$$

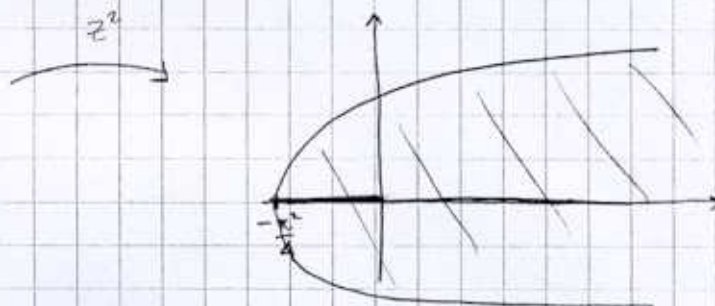


$$(\arg z \in (0, 2\pi))$$



$$g(z) = \log(f^{-1}(z)) - i\frac{\pi}{2}$$

(iii)



$$(x + i\frac{\pi}{2})^2 = x^2 - \frac{\pi^2}{4} + i\pi x$$

$$(x - i\frac{\pi}{2})^2 = x^2 - \frac{\pi^2}{4} - i\pi x$$

$$(ix)^2 = -y^2$$

$$y \in [\frac{\pi}{2}, \frac{3\pi}{2}]$$

El mapa deseado

$$(g \circ f)^2 = (\log(z) - i\frac{\pi}{2})^2$$