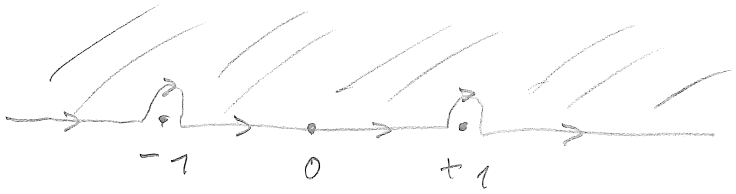
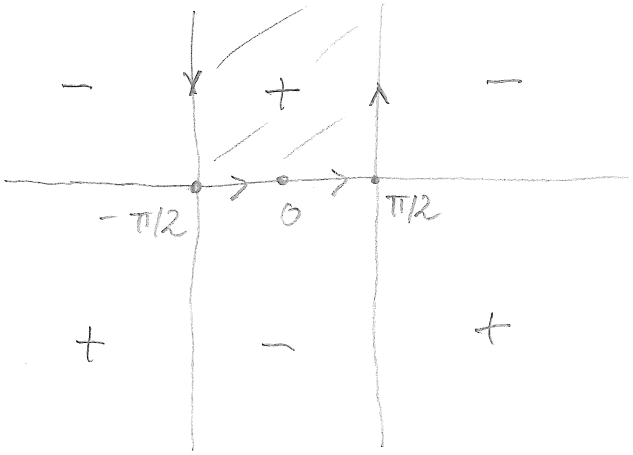


$$\sin^{-1} x = \int_0^x (1-y^2)^{-1/2}\, dy$$



$\sin^{-1}$ maps the upper half plane 1:1 onto the shaded strip

by reflection in the punctured plane $\mathbb{C} - (\pm 1)$, it produces a full tiling of the target plane by congruent, nonoverlapping images of the upper (+) and lower (−) half planes