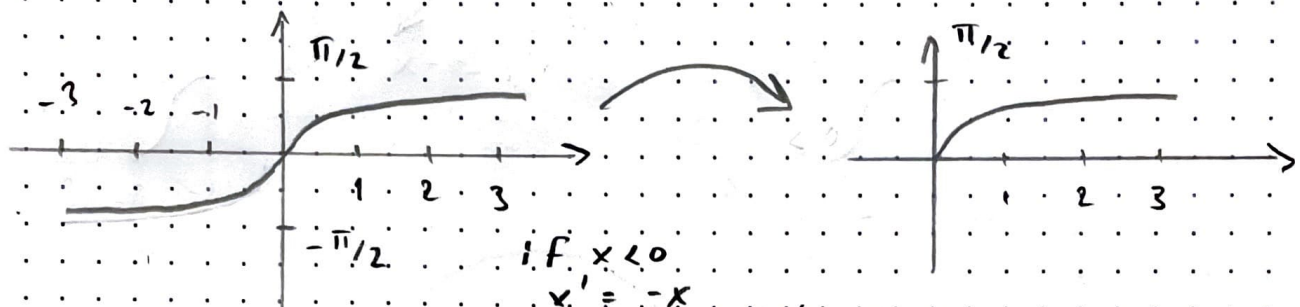


2(c) Identities:

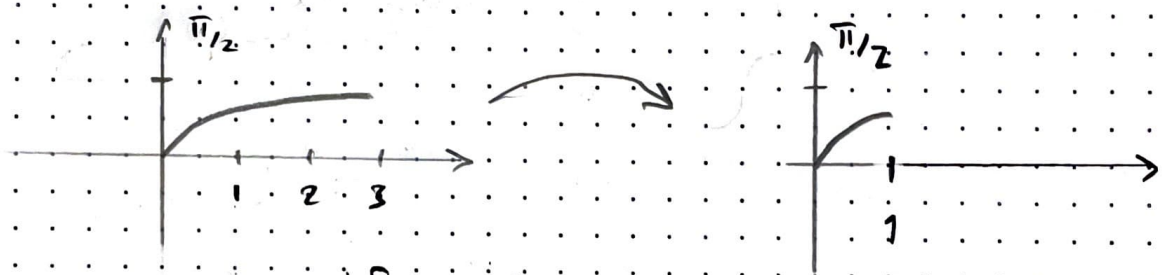
1: $\arctan(-x) = -\arctan(x)$

2: $\arctan\left(\frac{1}{x}\right) = \frac{\pi}{2} - \arctan(x)$, $x > 0$

$\Leftrightarrow \arctan(x) = \frac{\pi}{2} - \arctan\left(\frac{1}{x}\right)$



if $x < 0$
 $x' = -x$
return $-\arctan(x')$



if $x > 1$
 $x' = 1/x$
return $\frac{\pi}{2} - \arctan(x')$

else

return $\arctan(x)$