

$$\arg\left(\frac{z-i}{z+i}\right) = \frac{\pi}{2} \quad ((1.1) \text{ b a})$$

$$w = \frac{z-i}{z+i}$$

$$\arg(w) = \frac{\pi}{2} \leadsto w = il$$

$$\frac{z-i}{z+i} = (il) \quad \underline{\underline{b > 0}}$$

$$(z-i) = (il)(z+i)$$

$$z(1-il) = (i-l)$$

$$z = \frac{(1-il)}{(i-l)} = \left(\frac{-i-l}{-i-l}\right) \cdot \left(\frac{(1-il)}{i-l}\right)$$

$$= \frac{-i-l-l+il^2}{(1+l^2)} \quad (\text{s.n.p.})$$

$$* = \frac{-2l}{(1+l^2)} + i \left(\frac{-1+l^2}{1+l^2} \right) \quad ??$$

$l > 0$ $\in \mathbb{R}, l > 0$

No idea about curve in \mathbb{C} ?

$$z = x + iy$$

$$\frac{z-i}{z+i} = \frac{x+iy-i}{x+iy+i}$$

$$\left(\frac{x+i(y-1)}{x+i(y+1)} \right) \cdot \left(\frac{x-i(y+1)}{x-i(y+1)} \right) =$$

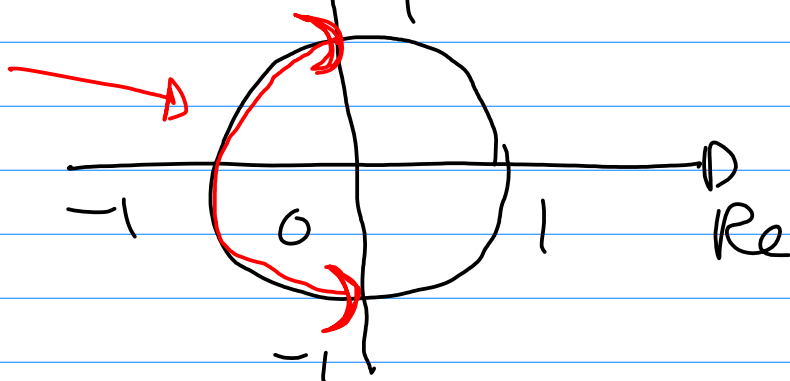
$$\left(\frac{x^2 - i x (y+1) + i (y-1) x + (y-1)(y+1)}{x^2 + (y+1)^2} \right)$$

$$\arg \left(\frac{(x^2 + y^2 - 1) + i(-x - x)}{x^2 + (y+1)^2} \right)$$

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

(A.N.P.)

$$\begin{cases} (x^2 + y^2 - 1) = 0 \\ -2x > 0 \quad \leadsto \quad \underline{x < 0} \end{cases}$$



!! see * above

$$\frac{4b^2}{(1+b^2)^2} + \frac{(-1+b^2)^2}{(1+b^2)^2}$$

$$4b^2 + (-2b^2 + b^4) =$$

$$b^4 + 2b^2 + 1 = \underline{\underline{(b^2 + 1)^2}}$$

↳ numerator

indeed the unit circle!!

and $\operatorname{Re}(z) < 0$ \boxtimes

(s.n.p.)