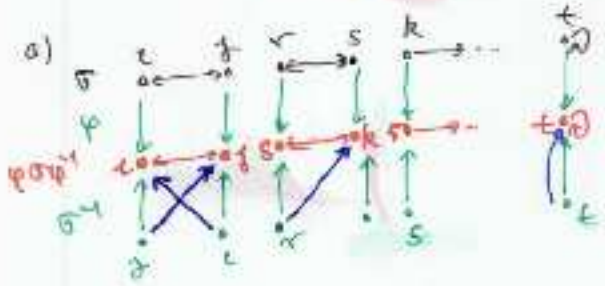
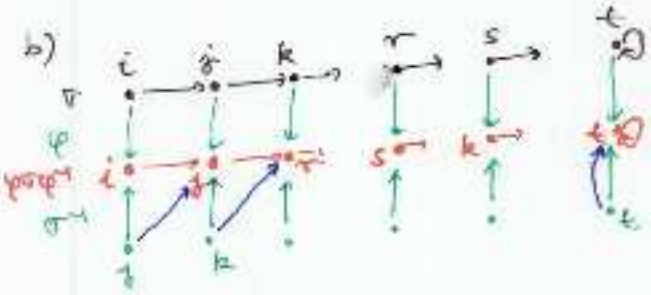
$\sigma \neq (abc) \Rightarrow \exists \varphi$

$|\mathrm{Fix}(\varphi\sigma\varphi^{-1}\sigma^{-1})| > \mathrm{Fix}(\sigma)$

a)



b)