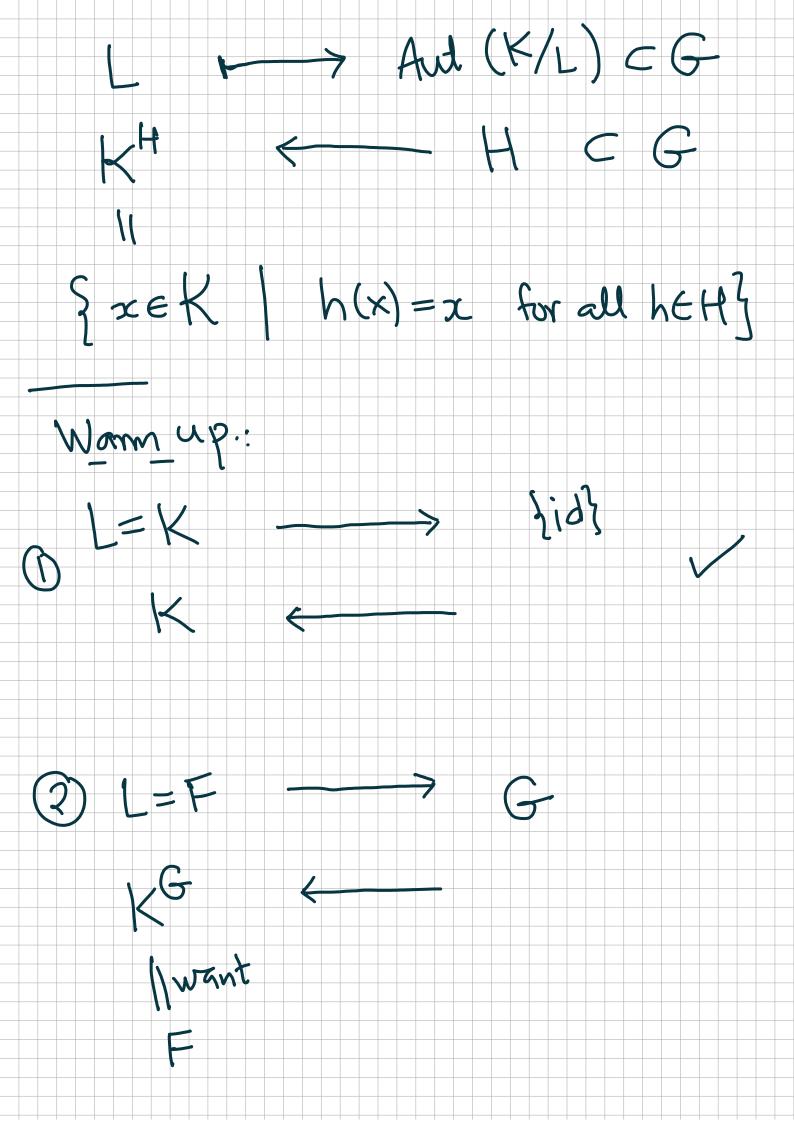
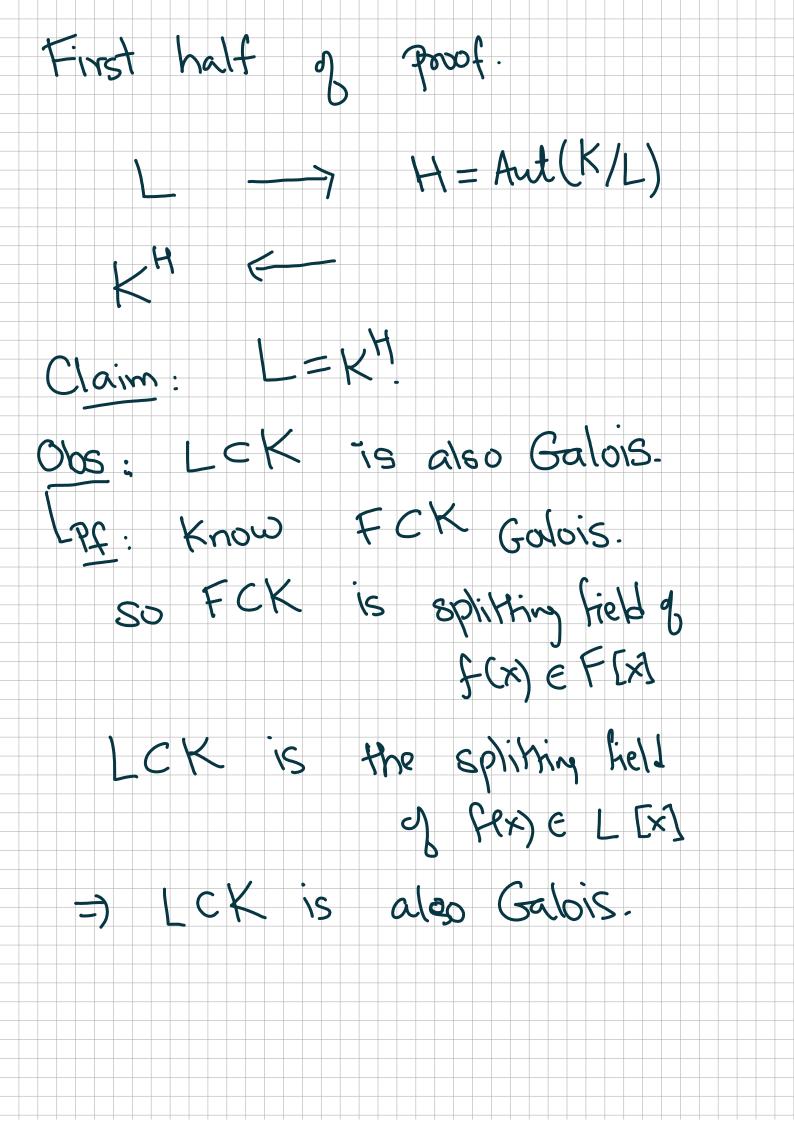
Main thm of Galois theory. Characteristic O FCK finite & Galvis · deg (K/F) = | Aut (K/F)| . K/F is a splitting field. Set G = Aut (K/F) Thm: We have a bijection Stields L. J. Subgrs of given by.



Why is OPA Have vs Aut K/KG deg (K/KG deg (K/1 1.e.



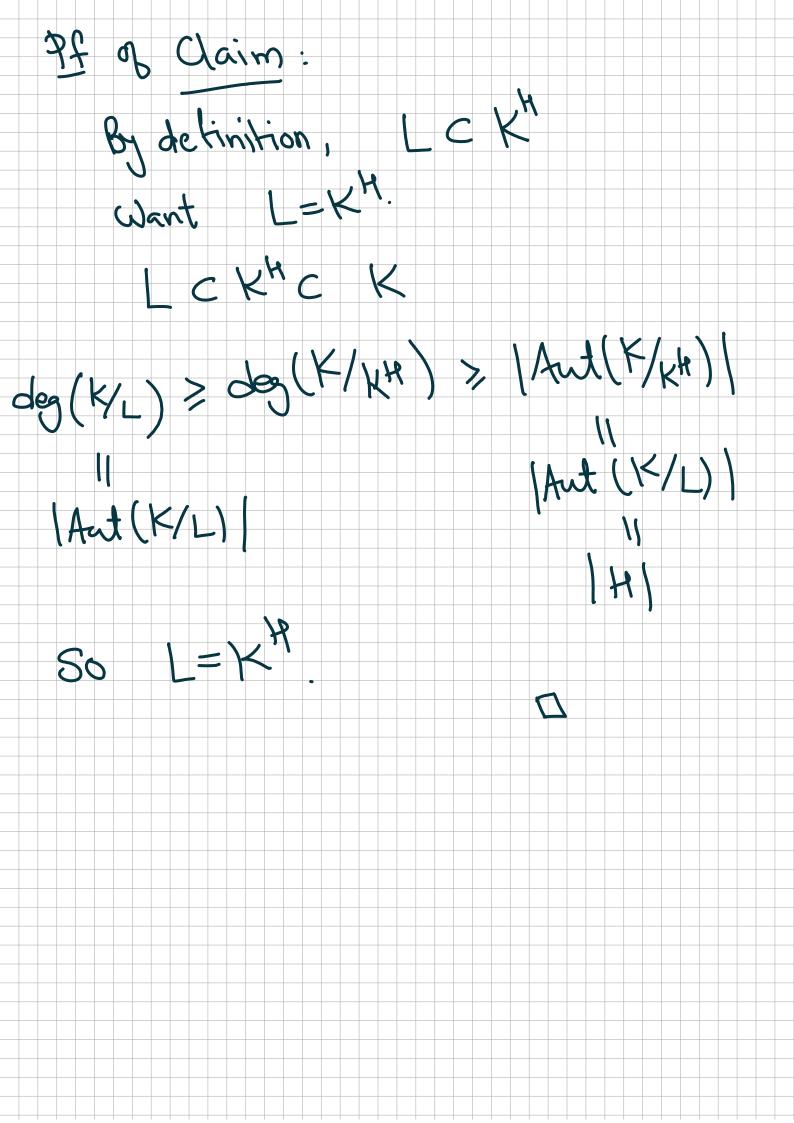
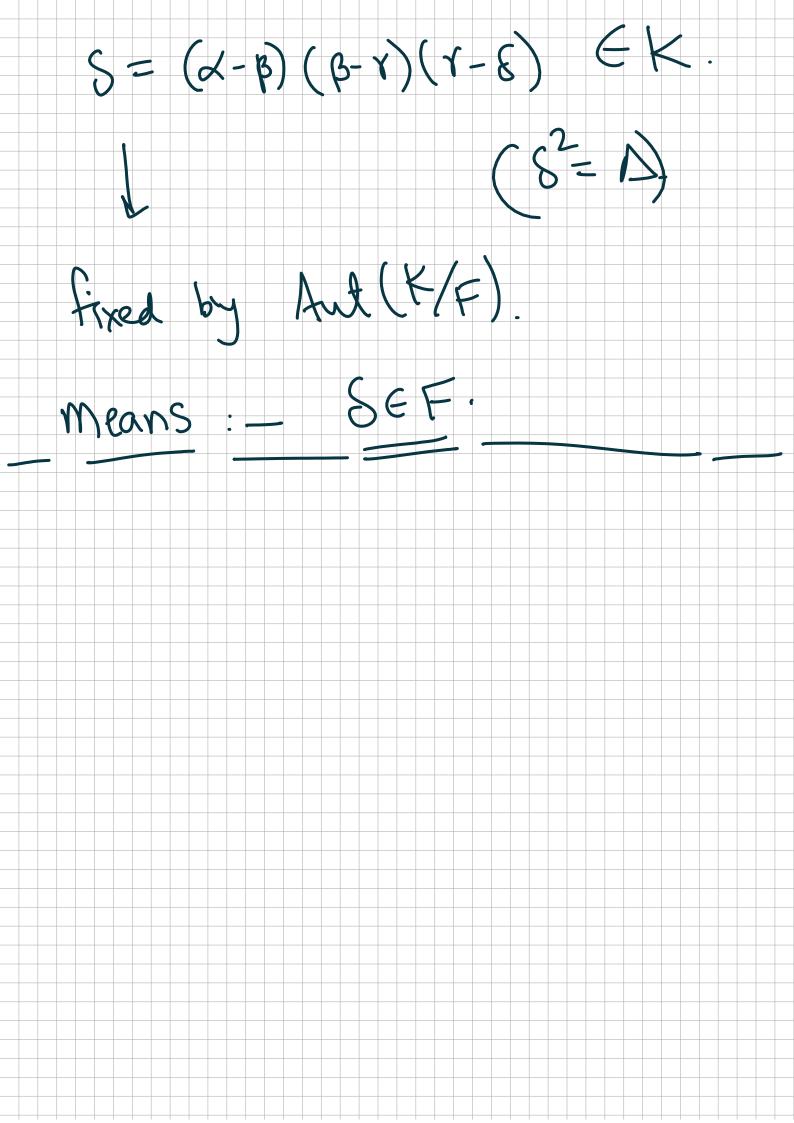
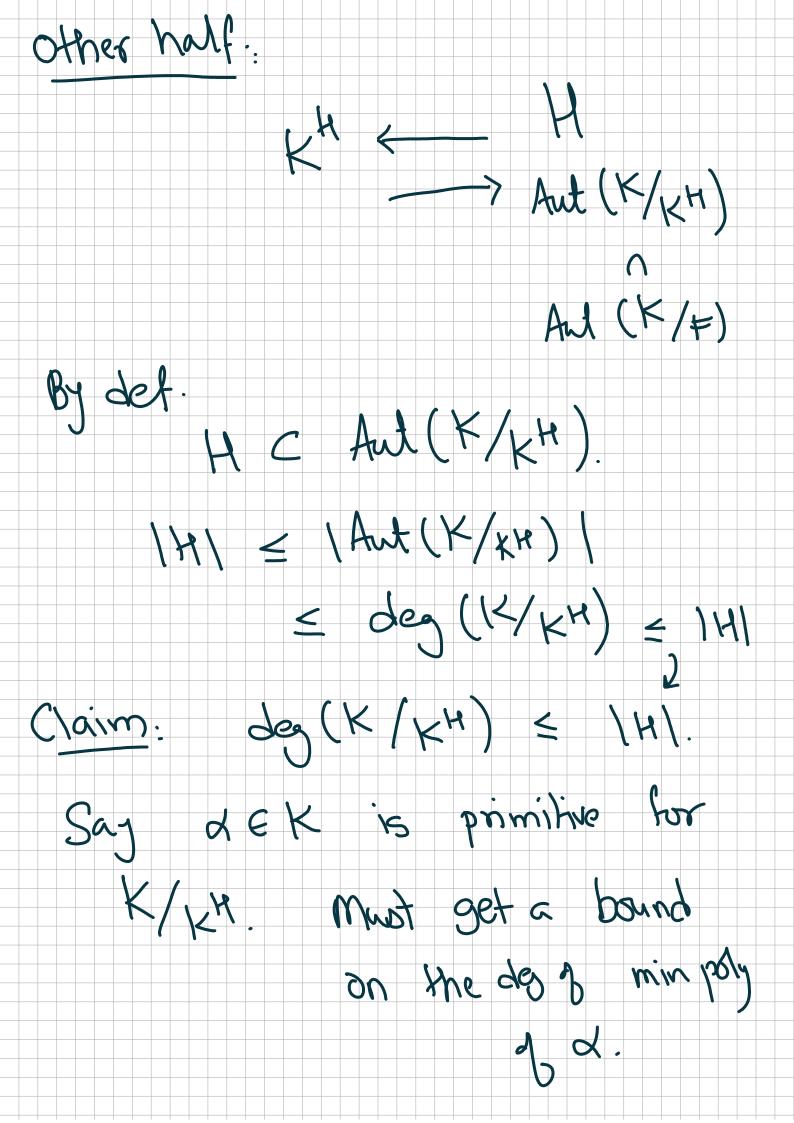


Illustration:		
	woic Galois.	
K = F [x]	/p(x) $p(x)$ cubic.	
In K p(x):	= (X-d)(X-B)(X-Y)	
$\alpha, \beta, \zeta \in K$		
Aut (X/F)	size 3 C Permut {\alpha_1\big 1}	
must be	19	
	$(\alpha \beta, 1)$	





Let me show a poly in KI1 [X] of des ItII satisfied by of. (X-d) (X-h,d) (X-h2d)--f(x) = -tt (x-hd) heH. f(x) is fixed by H. f(x) = x + ... x 14-11 in KH so far ext

H = Aut (K/KH) What about Char P_? There is Galois thy in charp less -> primitive elt Mm. repeated 20013. Charp Careful! work with "Separable ext"