October 11 Scratch

October-07-11 4:50 PM and KnH=dey

Claim. IF KOKH, HOKH, Then KH=KXH.

$$k_1 = k_2 h_1 = k_1 k_1 = h_1 h_2 = k_1 = k_2 + h_1 = h_1$$

$$hk = kh^k = k^{h^{-1}}h \implies h^k = h \implies [h,k] = 0$$

$$h^kh^{-1} = K^{-1}K^{h^{-1}} \iff K^{-1}h^{-1} \in H \cap K = dey$$