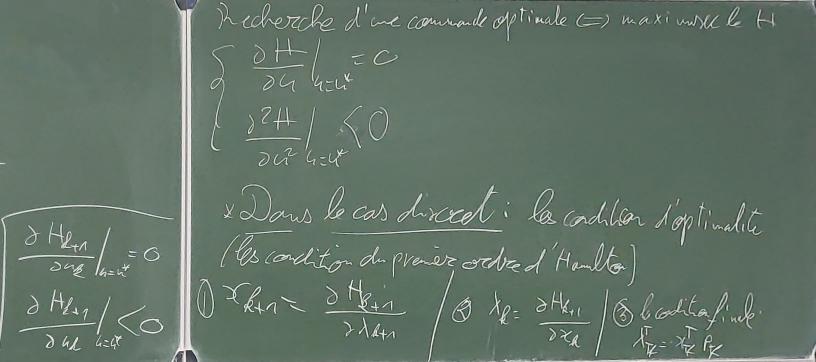
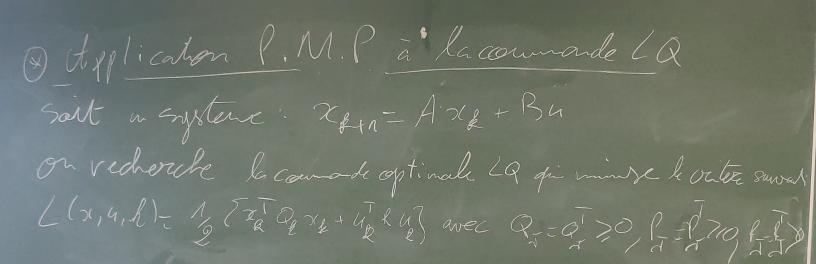
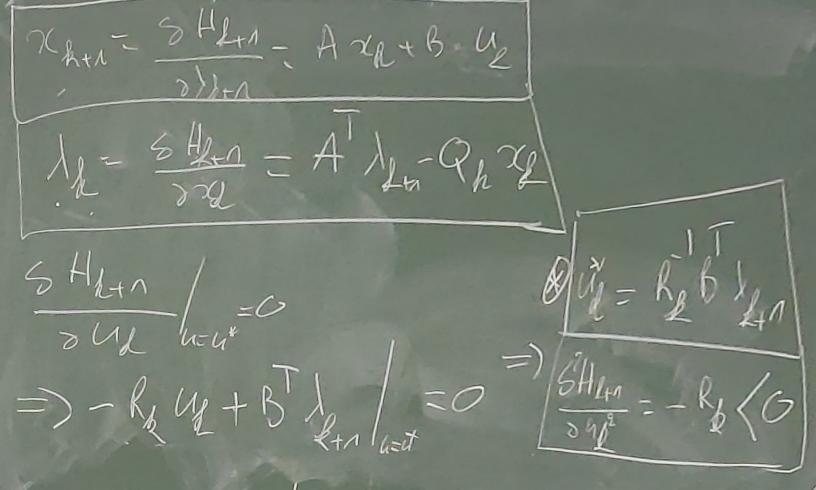
* 3 vinage de maxi misetar de l'+ lamiltonia (Pontryagne) + Das le cos continue: transce $u^{+}(x(t),t)$ gin maximise of Hamiltonian $H(x(t),u,\lambda)=-L(x,u,t)+\lambda' F(x,u,t)$ avec $\dot{x}=F(x,u,t)$ Down le constinue: les conditions d'optimalité (=> minister le vitere] (=> maximstr l'Hamiltonia Condition finale: Tip - x PI $\left(\otimes \right) = -\frac{8H}{32}$ (3) z= SH SA



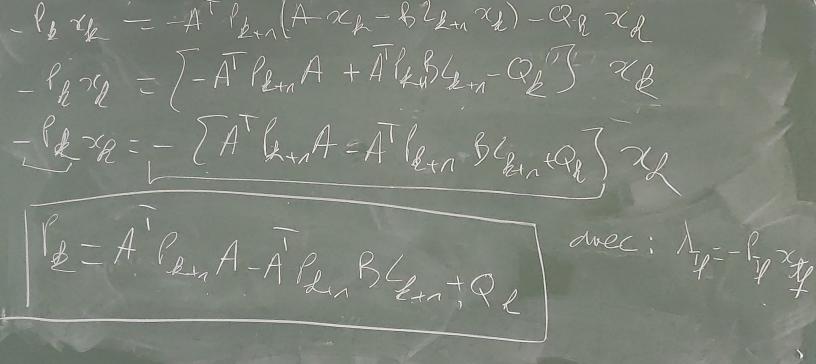


H(n, u, b) = - /2 [xa Qex + Uz kely] + /k (Azz+Bux) Den maximisation de H: (=> conditions d'optimalité, voissies Day Gent *) & = 5. 178+2 SHK+7/6=44



on poly: /g = - le sex UB = RIBILEN = -R B Pk+n Xx1 Rux = -BT fx Xx+1 = - BT fx (AXx+ BY)

- Pril = A x - Phi Xen - Ph Xe - 1/2 = - A Phi (A Ze+ 8/2) - Qn Xe



Determiner la commande optimale qui muse: Sous la contrate de le dynamique du systère suchant que systère evolue de XI = 0 à C -) XI = ? i C = 1

Solution:
$$A=-1$$
, $B=1$, $Q=3\pi$, $R=1$ $B=1$ $A=-1$, $B=1$, $A=-1$,