X=11050 y=rsin0 X=rcos0 - rsin80 Problem y = rsing + rcose o r2 $\dot{X} = a X + y - x (x^2 + y^2)$ reose-rsine 0= ariose + rsine - reoser2-Pull out sino (1) y=-x + ay-y (x2+y2) rsind+rosoo=arsino-rcoso-rsinor2 (2)Pull out cose > rcoto-ro=arcoto +r + rcoto = > rtand+ro=artand-r-r3tano r(coto+tano) = ar(coto+tano) - r3(coto+tano) 610+Land (ototfand $= \frac{1}{r} = ar - r^3$ $= \frac{1}{r^2} = \frac{1}{a^2 r^2} = \frac{1}{a^$ r-rtand 0 = art rtand - v3 Lit approaches 0 A+rcot00=ar-rcot0-13 - F(tanoxioto) 0= r(tanoxioto) - r(tantioto) - (tantitoto)