PHYS 407

1. $FN = psin\theta$ $EF_{x} = F_{p} - M(mg) = 0$ $EF_{y} = F_{N} + F_{p} sin\theta - mg = 0$ $EF_{y} = F_{N} + F_{p} sin\theta - mg = 0$ $EF_{y} = Mmg$ + Fr= Fpsind+mg Fp= mmg

Fp= coso Fpcos = M(-Fpsin0+mg) Fpcoso = - MpFpsind + Mmg Fpcos 0 = -M+Mmg

Fpsina

0= y-Mmg(-sin & Mcos A)

cot 0= Mmg-M (cos a) +3 in a) O=tan (Mmg-M) O= & sin Q + Mcos of 51n0 #M050 Fpcosa+MFpsin 0= Mmg cosa cosa tand=M Fp(cos0+20sin0)=Mmg 9= CE AT O-ten-say Fp= Mmg L cos+Msino

 $y = \frac{C}{(os x + Hsin x)} \qquad (O) \cdot (cos x + Hsin x) - (-sin x + AHcos x) \cdot (C) = \frac{C}{(os \theta + Hsin x)} \qquad (Cos \theta + Hsin x) = \frac{C}{(os \theta + Hsin x)} \qquad (Cos \theta + Hsin x) = \frac{C}{(os \theta + Hsin x)} = \frac{C}{$