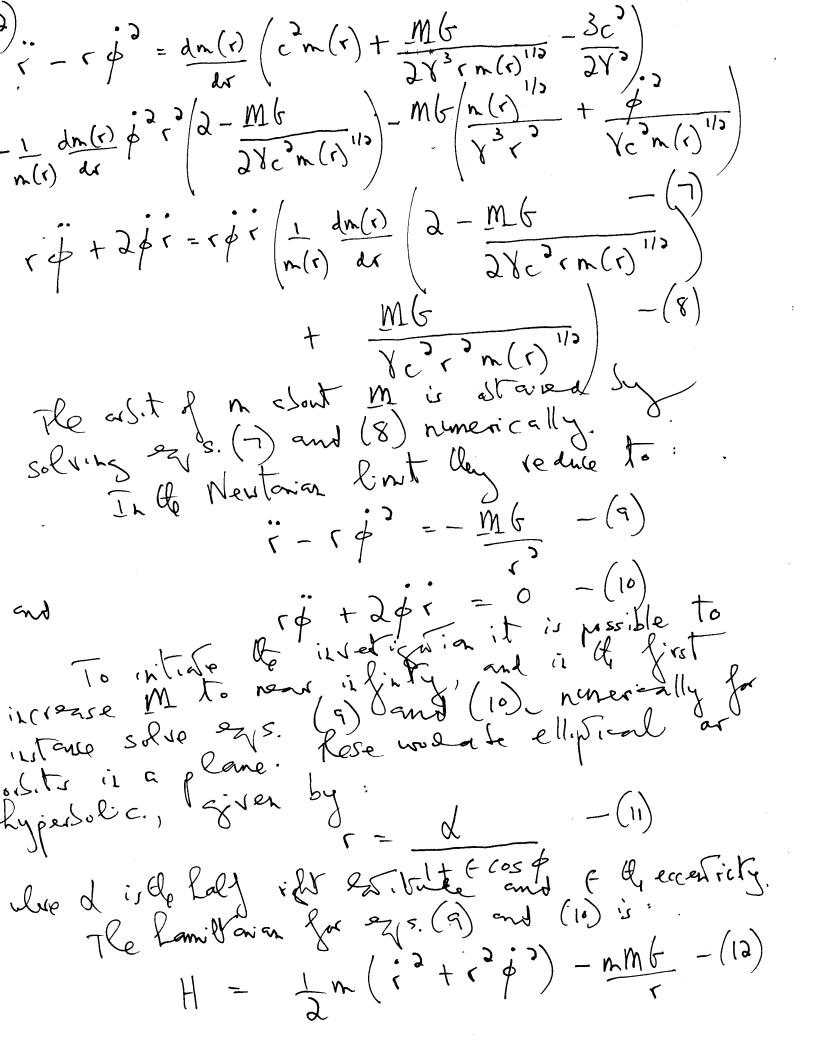
438(1): Orbit around a Heavy Mass in n Thought abit.

Nit relevente to 4FT419 and earlier papers the abit.

dynamics is n leave are governed by to two fundamental conservation egrations:

dH = 0 - (1) volume Hand Lave Ret Rambonian and onplear vonentum. In n theory:  $\frac{dL}{dt} = 0 - (3)$ H = m(r) Ync? - m(r) 1/3 mMG - (3) H= m(r) or  $\sqrt{\frac{1}{n(r)}}$ L=  $\sqrt{\frac{1}{n(r)}}$   $\sqrt{\frac{1}{n(r)}}$ ont and to potential energy is: V = -m(r) nM(s - (6))int plane polar combinate system (1, d) In
there eggs on the new master to new (1 Nasta;
plane, separate by a distance 1, and 6 is Nasta;
constant. depend on the Einstein field experien.
Using computer algebra it can be shown that.



) and the exposer homewing is: selecty is:  $\frac{2HL}{n^3m^36^3}$ The astal velocity is:  $\sqrt{2} = M \left( \frac{2}{3} - \frac{1}{a} \right) - (16)$ uleje  $a = \frac{\alpha}{1-\epsilon^2} - (17)$ For ex ellipsied asit:  $0 < \epsilon < 1 - (18)$ nd for to hypers. la:  $\epsilon > 1 - (19)$ prophete asit as:  $M \rightarrow \infty - (20)$ of n renain finite. From eq. (14), d mod o. Fm ez. (15),  $\in \longrightarrow 1 - (22)$ Fm ey. (11), - (23) Mado

Form ey. (H):  $\sqrt{\frac{M\rightarrow \infty}{M\rightarrow \infty}} \propto -(2/7)$ So to ellipsial ast shorks to a point and white shorks to a point and in a sout M apprache infinity. I see characteries could be graphed and or animaled, as externation of mass my second and (10) and ( of species of light; trapped by the pseudo of the order of the session of the session of the session of the order of the session of the order of the  $\frac{1}{2}m' = nm(-(25))$  $\Lambda = \left(\frac{3W(2)}{3W(2)}\right)/3 - (39)$ So is Newtonian dyramis & light is trapped and (on reser escape.

(on reser escape.

The complete earstons (7) and (8) ere considered,

a is to rext rate, a variety of obstal behaviour becomes

possible, notably precession, as interpretation of the considered