

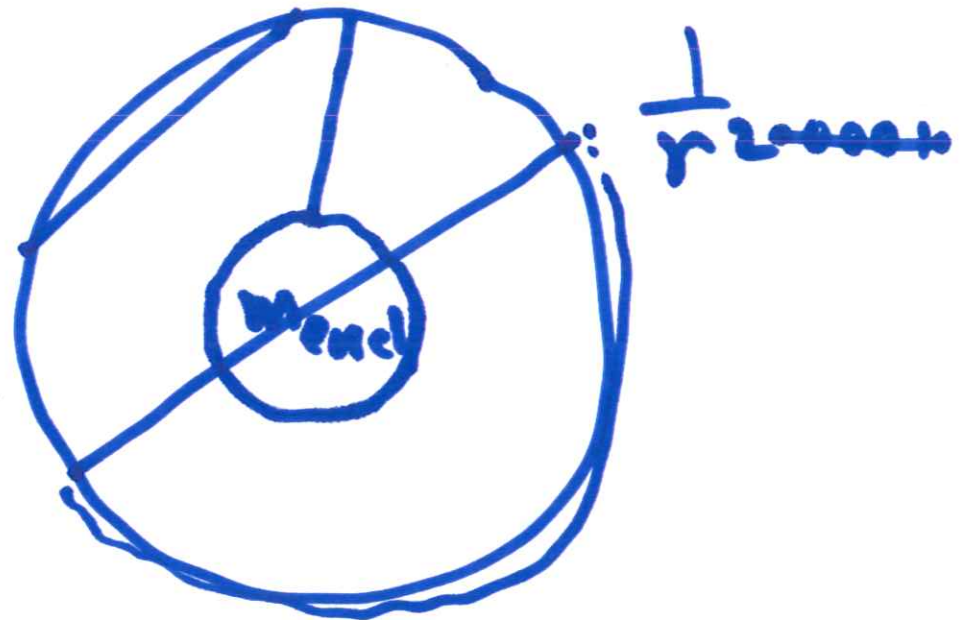
# NYU Physics I

2018-11-27

- no-name pr. / integrity
- 24 hr day?
- spin / orbit? T.G?
- Q.S.
- transfer orbit.

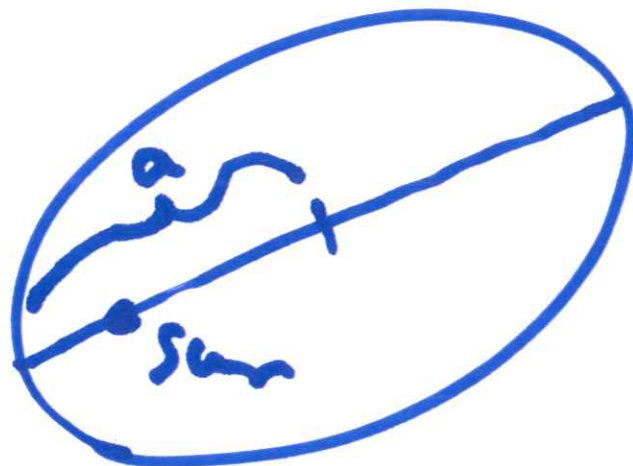
mas: 1.524 AU..

- SR chs 2, 3
- Moon landing.



$$E = -\frac{GMm}{2a}$$

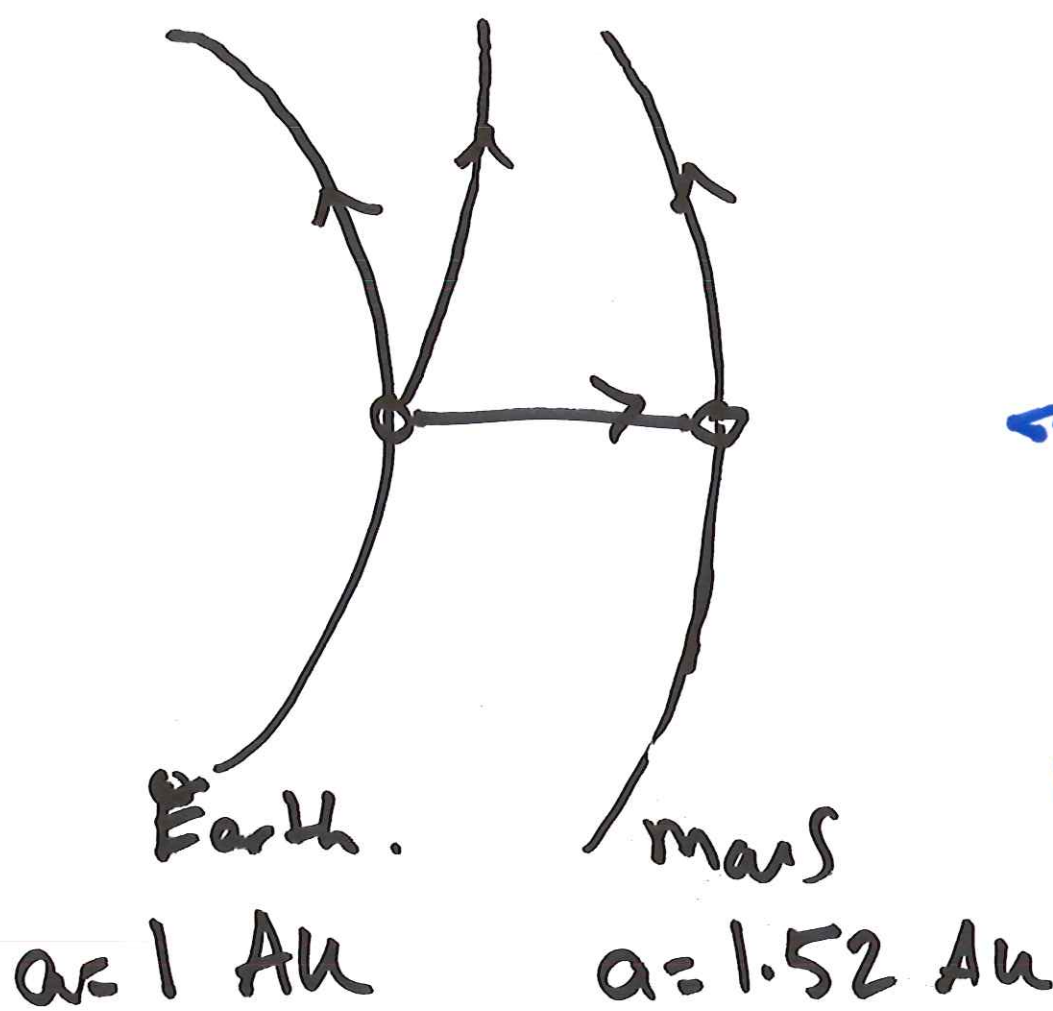
$a$ : s.m.a.



$$T^2 \propto a^3$$

$$\omega^2 \frac{1}{T^2} = G \rho \frac{M}{a^3}$$

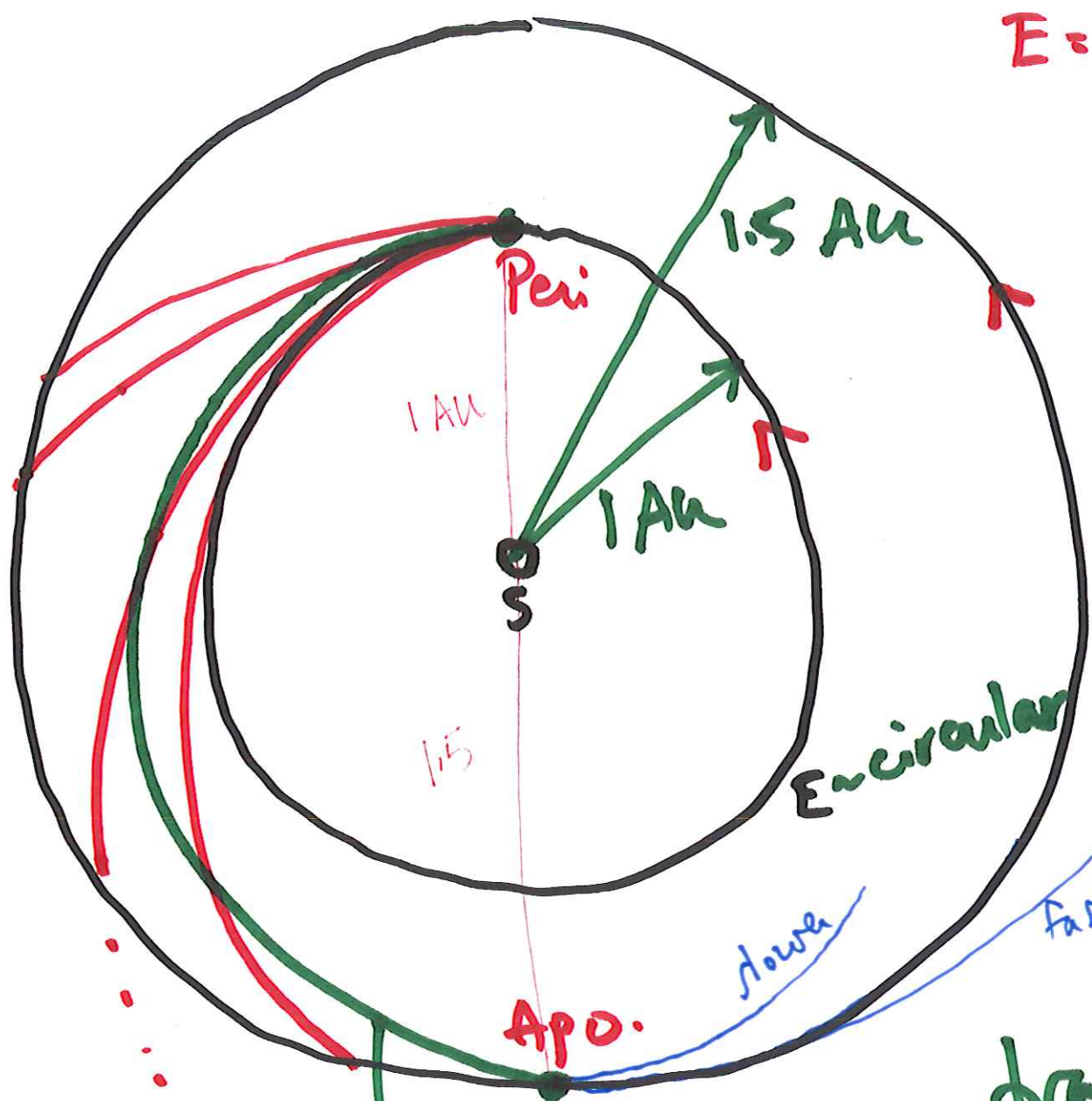
S.



$$v^2 = v_E^2 + \Delta^2 + 2\Delta v_E \cos\theta$$

$$E = -\frac{GMm}{2a}$$

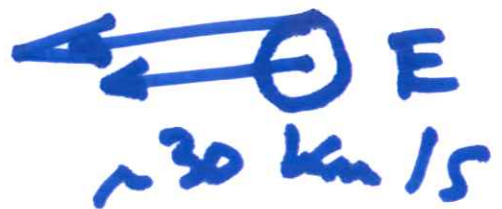
Major axis  
2.5 AU



$E \sim \text{circular}$

$E \sim \text{circular}$

minimum energy transfer orbit.  
 $a = 1.25 \text{ AU}$   
0.7 yr.

A hand-drawn diagram in blue ink. It features a circle with a dot in the center, representing a vector pointing out of the page. A horizontal arrow points to the left from the center of the circle. To the right of the circle is the letter 'E'. Below the circle and arrow is the text '~30 km/s'.

A hand-drawn diagram in blue ink. It features a circle with a dot in the center. Two horizontal arrows point to the right from the center of the circle. Below the circle and arrows is the letter 'M'.