1. Which has the larger gathering power
Gathering power is proportional to the area of the primary mirror
Diameter 2 meters has 4 times of a 1 meter telescope

2. Naked eye limit is about 6 on the apparent magnitude scale!

3. Changes of weight with changes in planet's mass and radius
As mass increases weight increases with the same ratio.
With increase of radius (inverse square law)

4. Magnification of a telescope.
Magnification=telescope focal length/ eyepiece focal length

5. Wavelength= speed of light/ frequency

6. Resolving power : is measured in arc seconds. The formula is
Arc seconds(x)= 11.6/(d)

7. How to calculate the period of a planet
T1 squared/a1 cubed= T2 squared/ a2 cubed