Universal Gravitation

Chapter Eight- "phy 8 rev 1"

Physics

$m_e = 5.98 \times 10^{24}$ kg
$r_e = 6.38 \times 10^{6}$ m
$r_{oe} = 1.5 \times 10^{11}$ m (orbital)

$m_s = 1.99 \times 10^{30}$ kg
$r_s = 6.96 \times 10^{8}$ m

$m_m = 7.22 \times 10^{22}$ kg
$r_m = 1.785 \times 10^{6}$ m
$r_{om} = 3.9 \times 10^{8}$ m (from earth)
$T_m = 27.3$ days

6. What is the period of a planet 6 times farther from the sun as the earth is?

7. If you weigh 784 N on earth(standing on the surface), what would you weigh if you 3 x further out?

8. What is the force of attraction between the earth and the moon?

9. Calculate the mass of the earth using the orbiting information of the moon.