Question 30803

According to Newton's Law of gravitation, gravitational force between two objects of mass M and m is $F = G M \dfrac{m}{R^2}$. Hence, knowing the distance between boulder and center of Triton (radius of Triton), one might express mass of Triton in terms of latter ones:

$$M_{Triton} = \frac{F \cdot R^2}{G \cdot m} = 3.08 \cdot 10^{15} \, kg \quad (\ G = 6.67 \cdot 10^{-11} \ ).$$