

As a practice problem, use the equation above to find the mass of the Earth given the following observational data: The period of the Moon around the Earth is 655 hr and the mean radius of its orbit is 384,000 km. Once you have an answer, look up the real value or ask your instructor to verify that you are doing the calculation correctly. Make sure that you also attach a unit to the mass. Use the information you were given above to explain why that unit is valid.

$$M_J = \frac{4\pi^2 D^3}{GT^2}$$