

Answer on Question #55271, Physics – Astronomy, Astrophysics

The Moon has a radius of 1 738 km. Demonstrate that the Moon is just over $\frac{1}{4}$ the size of the Earth.

Answer

$$R_{\text{moon}} = 1\ 738 \text{ km}; R_{\text{earth}} = 6\ 400 \text{ km}.$$

$$\frac{R_{\text{moon}}}{R_{\text{earth}}} = \frac{1\ 738}{6\ 400} \approx 0.271 > 0.25, \text{ thus the Moon is just over } \frac{1}{4} \text{ the size of the Earth.}$$