

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

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

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