

- 12** The acceleration of free fall on the surface of the Earth is 6 times its value on the surface of the Moon. The mean density of the Earth is $\frac{5}{3}$ times the mean density of the Moon.

If r_E is the radius of the Earth and r_M the radius of the Moon, what is the value of $\frac{r_E}{r_M}$?

- A** 2.4 **B** 3.6 **C** 4.8 **D** 6.0