

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

Using the data, what is the best value of the ratio of the radius of the Earth to the radius of the Moon?

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|--------------|--------------|
| A 1.9 | B 3.2 |
| C 3.6 | D 6.0 |

- 14** A satellite of mass 50 kg moves from a point where the gravitational potential due to the