

12 A low-Earth-orbit satellite orbits near the surface of the Earth at a speed of 7.90 km s^{-1} .

The radius of the Earth is 4 times that of the Moon, and the density of the Earth is 1.25 times that of the Moon.

What is the speed of a low-Moon-orbit satellite that orbits near the surface of the Moon?

A 1.77 km s^{-1}

B 2.21 km s^{-1}

C 3.53 km s^{-1}

D 14.1 km s^{-1}