16 On Earth, a solid object that is fully submerged in a liquid experiences an upthrust U_E.

On Mars, the same object, fully submerged in the same liquid, experiences an upthrust U_M.

The acceleration of free fall on Mars is $3.7\,m\,s^{-2}$.

Assume that the liquid's density and the object's volume have the same values on Earth and Mars.

What is the ratio $\frac{U_M}{U_E}$?

A 0.38 **B** 1.0 **C** 2.7 **D** 3.6