A U tube is filled with water and a liquid. Here the water is denser than the liquid, with the ratio of their densities \[ \frac{\rho_{\text{liquid}}}{\rho_{\text{water}}} = \frac{2}{3}. \]

Find the ratio \( \frac{h}{L} \).

A) \( \frac{h}{L} = \frac{1}{3} \).
B) \( \frac{h}{L} = \frac{2}{3} \).
C) \( \frac{h}{L} = 1 \).

By inspection the ratio of the height of liquid column above the horizontal line \( AB \) to the height of the water column above the same line should be 3 to 2.

This implies that \( \frac{h}{L} = \frac{2}{3} \).

Answer A