7. The wooden block is floating, so the buoyant force is equal to the weight of the block or

$$
\begin{aligned}
\mathrm{F} & =\mathrm{mg} \\
\mathrm{~F} & =(3.5 \mathrm{~kg})\left(9.8 \mathrm{~m} / \mathrm{s}^{2}\right) \\
\mathrm{F} & =34.3 \mathrm{~N}
\end{aligned}
$$

