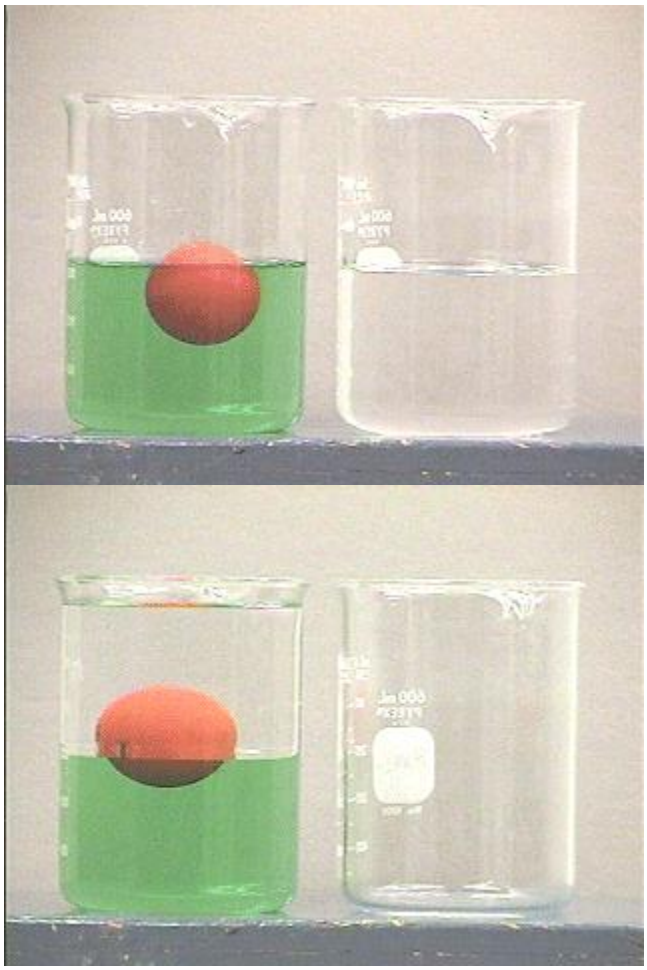
Answer #3

The answer is (b); the ball will float higher out of the water after the mineral spirits is poured onto the water, as seen in the photograph at the right below. The original photo is shown on the left for comparison.



The ball floats at a higher level because the mineral spirits in which the upper part of the ball is floating provide an additional buoyant force on the ball. If the ball is floating on water alone, the top part of the ball is immersed in air, which has a much smaller density.

We carefully did not show you a picture of the ball *sinking* in the mineral spirits. How do you know that it does not float on the mineral spirits?