

Hey there! Let's talk about density, which is a fancy word for how tightly packed something is. Imagine you have two boxes - one filled with feathers and the other with rocks. Even though both boxes may be the same size, the rock-filled box is heavier because the rocks are more tightly packed.

Now, let's apply this to our olive oil example. Density is calculated by dividing the mass of an object by its volume. In the case of the olive oil in the bottle, the mass is 690 grams and the volume is 750 cubic centimeters.

To calculate the density, we need to divide the mass (690g) by the volume (750cm³). This gives us a density of 0.92 grams per cubic centimeter (g/cm³). So, for every cubic centimeter of olive oil, there are 0.92 grams.

Think of it like this - if you have a small cup that can hold 1 cubic centimeter of olive oil, it would weigh 0.92 grams. If you had a bigger cup that can hold 10 cubic centimeters, it would weigh 9.2 grams!

So, in simple terms, density helps us understand how heavy or light something is for its size. It's like comparing a marshmallow to a brick - even though they may look similar in size, their densities are very different!