

Sure! Let's break it down step by step. Density is a measure of how much stuff (mass) is packed into how much space (volume). Think about it as how tightly packed the things are inside a certain space. It's like comparing a toy chest filled with toys to a small box filled with the same amount of toys - the toy chest is less dense because the same amount of toys are spread out in a bigger space.

Now, let's talk about the carrot. In this case, the carrot has a density of 0.44 grams per cubic centimeter. Imagine a small cube that represents one cubic centimeter; this cube can hold 0.44 grams of carrot if it was completely filled up. It's like a small imaginary box that we use for measuring how heavy the carrot is compared to how much space it takes up.

Next, we know that the carrot's volume is 250 cubic centimeters. So, if we were to put all the 250 tiny cubes (each holding 0.44 grams of carrot) together to form a bigger shape that represents the carrot, we can calculate the total mass of the carrot.

All we have to do is multiply the density (0.44 grams per cubic centimeter) by the volume (250 cubic centimeters) to find out the mass of the carrot. This simple multiplication gives us the final answer, which is the mass of the carrot expressed as a whole number.

So, to sum it up, by understanding how tightly packed the carrot's mass is in a given volume and using that information to calculate the total mass of the carrot, we can find out how heavy the carrot is in a simple and easy way!