

All the data is here

Part 1 Density of a Solution

volume of bottle = volume of water = volume of solution

mass of water in the bottle - mass of bottle = xxxxx g - xxxxx g = xxxx g

at 21.5°C the density(ρ) of water is yyyy g/mL $\rho = m/v$

volume of bottle = volume of water = $m/\rho = \text{xxxxx g}/\text{yyyy g/mL} = \text{zzzzz mL}$

mass of solution = mass bottle + solution - mass of bottle = **xxx.g** and so on

density of solution = mass of solution/volume of solution = xxx g/ zzz mL

= **g.gqqq g/mL** (5 sig figs ?)

Part 2 Density of Unknown Metal, X

I've seen some debate whether there should be a space between the number and the symbol 50g or 50 g

There should be so 50 g is right