**Answer on Question # 69460, Chemistry / General Chemistry**

I weighed 0.5 g of a product and dissolved in 10 mL of deionized water. From this I used 200 microliters (0.2 mL) for an experiment. I got 100,000 particles per mL of product. How many particles do I have in 100 mL of the product?

**Solution:**

For calculation you should know the density of product (ρ, g/ml). After that you can calculate in this way:

$$a = \frac{0.2\ ml \times 10\ ppm}{10\ ml + \frac{0.5}{\rho}\ ml}$$

$$b = \frac{100\ ml \times a\ ppm \times \rho\ g/ml}{0.5\ g}$$