

Answer on Question #62989 - Chemistry - General Chemistry

Question:

A diamond has a density of 3.52 g/mL. What is the volume in cubic centimeters of a diamond with a mass of 15.1g?

Solution:

Density = mass / volume, therefore volume = mass / density.

Note that 1 mL = 1 cubic centimeter.

Do the calculation:

Volume = $15.1\text{g} / 3.52\text{g/mL} = 4.3\text{mL} = 4.3$ cubic centimeters.

Answer:

The volume of a diamond with a mass of 15.1g is **4.3 cubic centimeters**.