Comparing Mass and Volume in a Liquid Mix

Scoring guide · one credit per question · review written work against each rubric

Comparing Mass and Volume in a Liquid Mix

Question 1

Choice (2)

The two masses add to 45.2 g. The volumes add to 40.0 mL before mixing, which is more than the mixture’s 39.0 mL.

Question 2

Density is 45.2 g ÷ 39.0 mL, or about 1.16 g/mL.

Question 3

The final mass equals the sum of the starting masses. The same molecules can occupy less space if their attractions and packing bring them closer together.

Question 4

It would be lower. Dividing the same mass by 40.0 mL instead of the smaller 39.0 mL gives a smaller quotient.