

mass (flask empty) = 17.3223 g

Mass (water) = $24.5 - 17.3223 = 7.17$ g

Water density = 0.9977 g/mL

Flask volume = $24.5 / 0.9977 = 7.194$ mL

Average flask volume = 9.44 mL

Absolute Deviation = $9.44 - 7.194 = 2.2414$

Average absolute deviation = 2.0462

Relative Deviation = $2.2414 - 2.0462 = 0.238$

Relative Average Deviation (RAD) = 0.21714

For Part C:

Mass (before addition) = 40.7 g

Mass (after addition) = 45.9 g

Mass (water added) = $45.9 - 40.7 = 5.2$ g

Water density = 0.9977 g/mL

Pipet Volume = $5.2 / 0.9977 = 5.21$ mL

Average pipet volume = 5.09 mL

Absolute deviation = $5.21 - 5.09 = 0.12$

Average absolute value = 0.304

Relative deviation = Absolute Dev. / V (avg.) = $0.12 / 5.09 = 0.02$

Relative average deviation (RAD) = 0.056