mol C → 0.034 mol
mol H → 0.046 mol
mol O → 0.034 mol

→ Convert to g amts.

1.0 g − (.408 + .046) = 0.546 g O

(1.0 g in orig mass)

↳ Empirical Formula

$C_{\frac{0.034}{0.034}} H_{\frac{0.045}{0.034}} O_{\frac{0.034}{0.034}}$

$\frac{C}{C} = 1$ $\quad \frac{H}{C} = 1.3$ $\quad \frac{O}{C} = 1$

$\frac{H}{C} = \frac{4}{3}$

$C_3 H_4 O_3$ Empirical Formula for Vit C

↓

Molecular Formula

$C_6 H_8 O_6$