

Solutions

Each answer shows the steps, then the **result**.

2.1

- $A = \varepsilon bc$: A absorbance, ε molar absorptivity, b path length, c concentration

2.2

- $A = (500)(1.0)(0.0010) = 0.50$

2.3

- Concentration

3.1 B

- A is proportional to c , so doubling c doubles A

3.2

(a)

- $A = 250(0.0016) = 0.40$

(b)

- $c = \frac{0.50}{250} = 0.0020 \text{ M}$

3.3

- $c = \frac{A}{\varepsilon b} = \frac{0.80}{(400)(1.0)} = 0.0020 \text{ M}$