

Solutions

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

2.1

- $K = \frac{(0.8)^2}{(0.2)(0.2)} = \frac{0.64}{0.04} = 16$

2.2

- Initial, Change, Equilibrium

2.3

- $[A] = 2.0 - 0.5 = 1.5 \text{ M}$

3.1 B

- the equilibrium concentrations

3.2

(a)

- A fell by 0.4, so $x = 0.4$; B rose by $2x = 0.8$, so $[B] = 0.8 \text{ M}$

(b)

- $K = \frac{(0.8)^2}{0.6} = \frac{0.64}{0.6} = 1.07$

3.3

- $K = \frac{(0.40)^2}{(0.20)(0.20)^3} = \frac{0.16}{(0.20)(0.008)} = \frac{0.16}{0.0016} = 100$