

Solutions

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

2.1

- $\text{pH} = -\log(0.001) = 3$

2.2

- $\text{pOH} = -\log(0.010) = 2$; $\text{pH} = 14 - 2 = 12$

2.3

- $[\text{H}^+] = 10^{-4} = 1 \times 10^{-4} \text{ M}$

3.1 C

- 14

3.2

(a)

- $[\text{H}^+] = 0.0050 \text{ M}$

(b)

- $\text{pH} = -\log(0.0050) = 2.30$

3.3

(a)

- $\text{pOH} = -\log(0.020) = 1.70$

(b)

- $\text{pH} = 14 - 1.70 = 12.30$