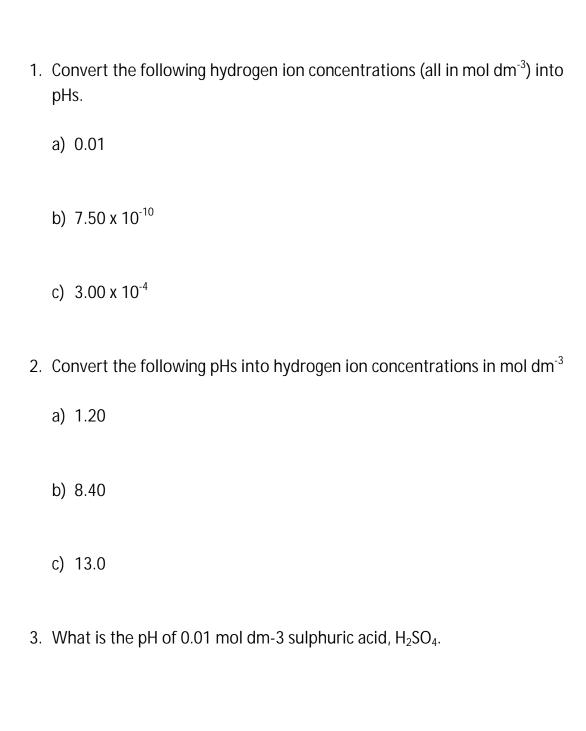
pH Questions



4. Calculate the pH of pure water at 15° C. ($K_w = 4.52 \times 10^{-15} \, \text{mol}^2 \, \text{dm}^{-6}$).

5. What is the pH of 0.10 mol dm⁻³ sodium hydroxide solution, NaOH. ($K_w = 1 \times 10^{-14} \text{ mol}^2 \text{ dm}^{-6}$).

6. What is the pH of 0.0150 mol dm⁻³ calcium hydroxide solution, Ca(OH)₂. $(K_w = 1 \times 10^{-14} \text{ mol}^2 \text{ dm}^{-6})$.

7. What is the pH of 0.01 mol dm-3 ethanoic acid. ($Ka = 1.74x10^{-5}$ mol dm⁻³)

8. What is the pH of 0.05 mol dm $^{-3}$ methanoic acid, HCOOH, if its pK $_a$ is 3.75?