Name _____ Date _____ Period _____

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# 8.2 pH and pOH of Strong Acids and Bases

AP Chemistry

Show your work. Use $K_w = 1.0 \times 10^{-14}$ at 25 °C. Report pH to the correct number of decimal places.

**1.** Circle every strong acid and underline every strong base.

HF $HNO_3$ $CH_3COOH$ HBr $H_2SO_4$ $H_2CO_3$ $HClO_4$

KOH $NH_3$ $Ca(OH)_2$ $CH_3NH_2$ NaOH

**2.** Calculate the pH of a 0.0075 *M* HBr solution.

**3.** Calculate the pH of a 0.0032 *M* $Ca(OH)_2$ solution at 25 °C.


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**4.** A KOH solution has a pH of 12.40 at 25 °C. What is the molar concentration of KOH?

**5.** A 25.0 mL sample of 0.100 *M* HCl is diluted with water to a final volume of 500.0 mL. Calculate the pH of the diluted solution.


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