



5. Calculate the pH of the following solutions.

(a) 0.1825 g of HCl dissolved in 200. mL of distilled water. (2)

(b) 0.980 g of HNO<sub>3</sub> dissolved in 500. mL of distilled water. (2)

(c) 0.400 g of NaOH dissolved in 1.00 L of distilled water. (2)



WEAK ACIDS

6. What determines whether an acid is weak or strong? (2)

7. Complete the following table. (3)

Acid	pKa	Ka
A		$1.8 \times 10^{-3}$
B	4.12	
C	3.34	

8. Which of the acids in question #7 is the strongest? (1)

9. Methanoic acid, HCOOH, is a weak acid with a  $K_a = 1.6 \times 10^{-4}$ . Calculate the pH of

(a) A 0.20 M solution of methanoic acid. (2)

(b) A solution of 6.8 g of solid methanoic acid dissolved in 2.0 L of distilled water. (3)