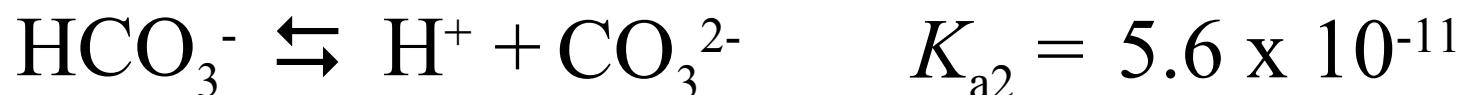


Find the pH of a **0.0037** M solution of H_2CO_3



$$4.3 \times 10^{-7} = \frac{x^2}{3.7 \times 10^{-3}} \quad x = \frac{4.0 \times 10^{-5} \times 100}{3.7 \times 10^{-3}} = 1.10 \%$$

$$[\text{H}_2\text{CO}_3]$$

$$I \quad 3.7 \times 10^{-3}$$

$$C \quad -x$$

$$E \quad 3.7 \times 10^{-3} - x$$

$$3.7 \times 10^{-3}$$

$$[\text{H}^+]$$

$$0.00$$

$$+x$$

$$x$$

$$[\text{HCO}_3^-]$$

$$0.00$$

$$+x$$

$$x$$

$$\text{pH} = 4.40$$

$$[\text{CO}_3^{2-}] =$$

$$4.0 \times 10^{-5}$$