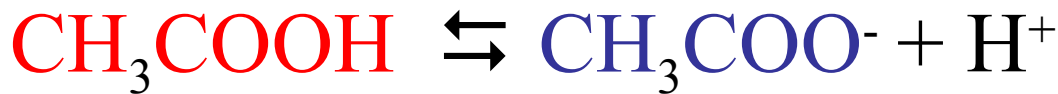


# Common ion effect

presence of conjugate base inhibits dissociation

weak acid or base + conjugate base or acid



I      0.667                      0.00                      0.00

C      -x                              +x                              +x

E      0.667 - x                      x                              x

$$K_a = 1.8 \times 10^{-5} = \frac{(\text{x})(\text{x})}{(0.667 - \text{x})}$$

$$\text{x} = 3.46 \times 10^{-3} \quad \text{pH} = 2.46$$

