

Quiz Chapter 16 — Question One

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$$\Delta G = \Delta G^o + RT \ln(Q)$$

$$\Delta G^o = -178 \text{ [kJ]}$$

$$[\text{H}^+] = 10^{-3.12} = 7.59 \cdot 10^{-4} \text{ [M]}$$

$$Q = \frac{1}{.755 \cdot (7.59 \cdot 10^{-4})^4} = 4 \cdot 10^{12} \quad (1)$$

$$\Delta G = -178 + (8.314)(298)(10^{-3}) \ln(4 \cdot 10^{12})$$

$$\Delta G = -107 \text{ [kJ]}$$