

Solutions

Each answer shows the steps, then the **result**.

2.1

- Positive

2.2

- Negative

2.3

- $\Delta G = 20 - 300(0.10) = 20 - 30 = -10 \text{ kJ}$

3.1 B

- high temperature

3.2

(a)

- $\Delta G = 15 - 250(0.060) = 15 - 15 = 0 \text{ kJ}$ — at the borderline (just favorable above this T)

(b)

- $T = \frac{15}{0.060} = 250 \text{ K}$

3.3

- Their dissolution is endothermic but has positive ΔS ; raising T makes $-T\Delta S$ more negative, so ΔG becomes negative and more salt dissolves