

Solutions

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

2.1

- They add

2.2

- $20 + (-35) = -15 \text{ kJ}$

2.3

- Yes ($\Delta G < 0$)

3.1 B

- a sufficiently negative ΔG to make the sum negative

3.2

(a)

- $25 + (-40) = -15 \text{ kJ}$

(b)

- Favorable ($\Delta G < 0$)

3.3

- ATP hydrolysis is strongly favorable ($\Delta G \ll 0$); coupling it to an unfavorable reaction makes the combined ΔG negative, so the overall process proceeds