



Heat Change Closed System

Use the first law of thermodynamics to determine the amount of heat change, Q , for a closed system, and whether it was added to or removed from the system, given that $W = 225 \text{ J}$ and $\Delta E = 600 \text{ J}$.

Answer: $Q = +825 \text{ J}$

Explanation: Using $Q - W = \Delta E$, positive sign means heat added to the system.