



A thermodynamic cycle diagram showing two isotherms. The top isotherm is at $T_H = 400\text{ K}$ and the bottom is at $T_C = 300\text{ K}$. A vertical arrow points upwards from the bottom isotherm to the top one, labeled $Q_H = +6000\text{ J}$. A horizontal arrow points to the left from the right side of the top isotherm, labeled $W = 6000\text{ J}$. The two isotherms are connected by two curved lines, forming a closed loop.

$$T_H = 400\text{ K}$$

$$Q_H = +6000\text{ J}$$

$$W = 6000\text{ J}$$

$$T_C = 300\text{ K}$$