- Calculate the heat input required (in J) for the conversion of 9.0 g of water from ice at 273 K to steam at 373 K.

    Data: C_p H$_2$O(l) $= 75$ J K^{-1} mol^{-1}

            ΔH_{vap} H$_2$O(l) $= 41$ kJ mol^{-1} ΔH_{fus} H$_2$O(s) $= 6.0$ kJ mol^{-1}

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