Q1 Use information from figure to Calculate how much heat is required to vaporize 4.33 mol of water at 100 °C ?
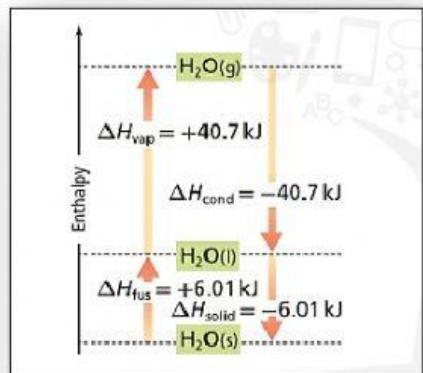

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Q2 Choose the correct answer :

A) Number of moles of evaporated ethanol (C_2H_5OH), if the amount of required heat to evaporate equal 200.72 KJ.

$$C_2H_5OH_{(l)} \rightarrow C_2H_5OH_{(g)} \qquad \Delta H°_{vap} = 38.6 \text{ KJ/mol}$$

a) 7.75×10^4 mol   b) 0.192 mol   c) 5.20 mol   d) 7.75×10^{-4} mol

B) Use the following reaction to calculate amount of heat released from burning 9.01 g of Glucose ($C_6H_{12}O_6$) .

$$C_6H_{12}O_{6\,(s)} + 6O_{2(g)} \rightarrow 6CO_{2(g)} + 6H_2O_{(l)} \qquad \Delta H°_{comb.} = -2808 \text{ KJ/mol}$$

a) 280 KJ   b) 210 KJ   c) 14.0 KJ   d) 140 KJ

C) From the figure identify which answer is **NOT** correct .

a) Products have lower energy than the reactants.

b) $\Delta H = H_C - H_A$

c) $\Delta H = H_A - H_C$

d) The reaction is exothermic .