

3. The difference between ΔH and ΔU ($\Delta H - \Delta U$), when the combustion of one mole of heptane(l) is carried out at a temperature T , is equal to:

(JEE Mains, 2019)

A) $-4RT$

B) $3RT$

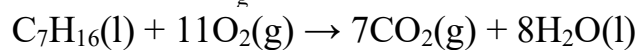
C) $-3RT$

D) $4RT$

Ans: A) $-4RT$

Explanation:

$$\Delta H - \Delta U = \Delta n_g RT$$



$$\text{Here, } \Delta n_g = 7 - 11 = -4$$

$$\therefore \Delta H - \Delta U = -4RT$$