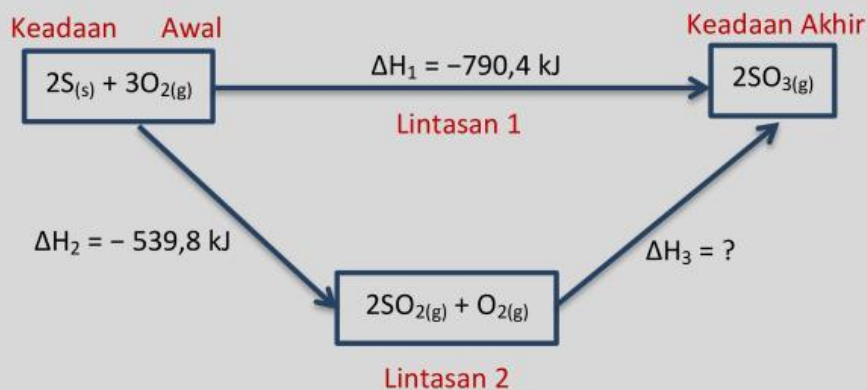


D. Aplikasi

1. Perhatikan siklus berikut ini!



Berdasarkan siklus di atas, tentukanlah nilai ΔH_2 !

Berdasarkan siklus diatas, diketahui bahwa :

$$\begin{aligned}\Delta H_1 &= \Delta H_2 + \Delta H_3 \\ \Delta H_3 &= \underline{\hspace{2cm}} \\ \Delta H_3 &= \underline{\hspace{2cm}}\end{aligned}$$

2. Hitunglah ΔH reaksi $C_2H_6(g) + \frac{7}{2}O_{2(g)} \rightarrow 2CO_{2(g)} + 3H_2O(l)$ dengan diketahui:

$$\Delta H_f^\circ C_2H_6(g) = -84,7 \text{ kJ/mol}$$

$$\Delta H_f^\circ CO_{2(g)} = -393,5 \text{ kJ/mol}$$

$$\Delta H_f^\circ H_2O(l) = -286 \text{ kJ/mol}$$

$$\Delta H \text{ reaksi} = \underline{\hspace{2cm}}$$

$$\Delta H \text{ reaksi} = (\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) - (\underline{\hspace{1cm}} + \underline{\hspace{1cm}})$$

$$\Delta H \text{ reaksi} = \underline{\hspace{2cm}} - \underline{\hspace{2cm}}$$

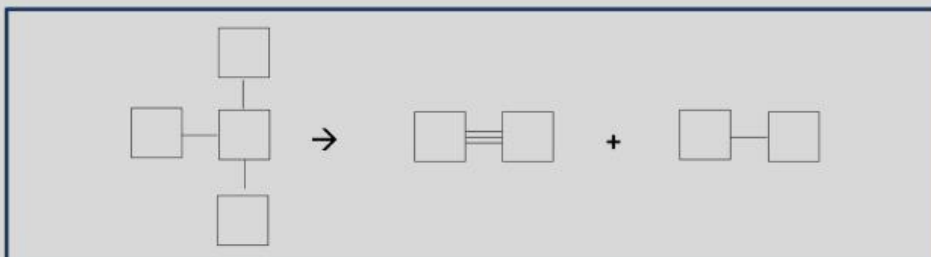
$$\Delta H \text{ reaksi} = \underline{\hspace{2cm}}$$

3. Diketahui energi ikatan:

$\text{N} - \text{H} : 351 \text{ kJ/mol}$ $\text{N} \equiv \text{N} : 945 \text{ kJ/mol}$ $\text{H} - \text{H} : 433 \text{ kJ}$

Kalor penguraian NH_3 menurut reaksi $2\text{NH}_{3(g)} \rightarrow \text{N}_{2(g)} + \text{H}_{2(g)}$ adalah?

Struktur Lewis dari reaksi tersebut :



ΔH reaksi = _____

ΔH reaksi = _____ - _____

ΔH reaksi = _____

ΔH reaksi = _____