

## Hess's Law: Exercises

### Problem #01

Consider the following hypothetical reactions:



- Use Hess's law to calculate the enthalpy change for the reaction  $A \rightarrow C$
- Construct an enthalpy diagram for substances A, B, and C and show how Hess's law applies

### Problem #02

Suppose you are given the following hypothetical reactions:

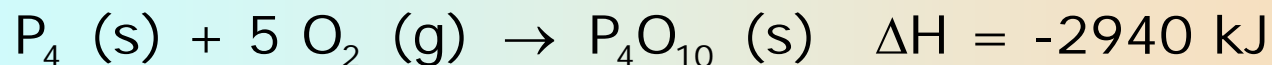
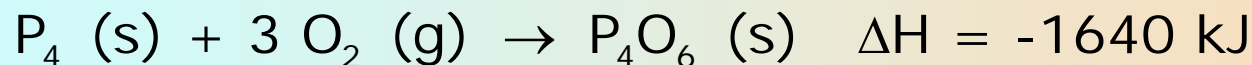


- Use Hess's law to calculate the enthalpy change for the reaction  $Y \rightarrow Z$
- Construct an enthalpy diagram for substances X, Y, and Z

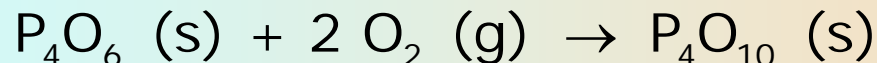
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### Problem #03

Given the following enthalpies of reaction:

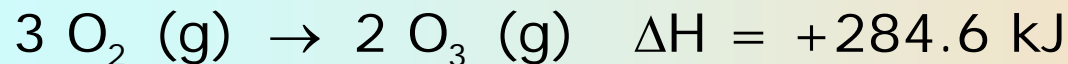
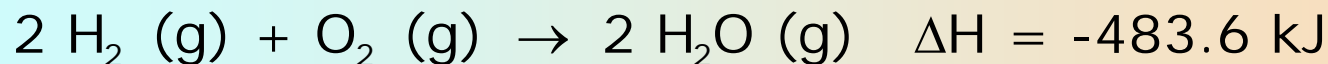


calculate the enthalpy change for the reaction



### Problem #04

From the following heats of reaction:



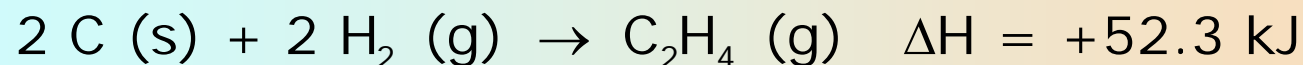
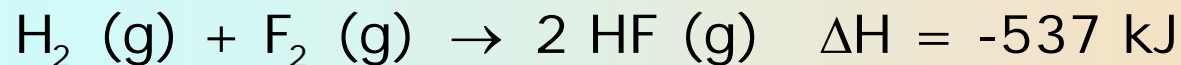
calculate the heat of the reaction



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### Problem #05

From the following enthalpies of reaction:



calculate the enthalpy change for the reaction

