

## Hess's Law: Exercises

### Problem #01

Consider the following hypothetical reactions:



- a) Use Hess's law to calculate the enthalpy change for the reaction A→C  
 b) Construct an enthalpy diagram for substances A, B, and C and show how Hess's law applies

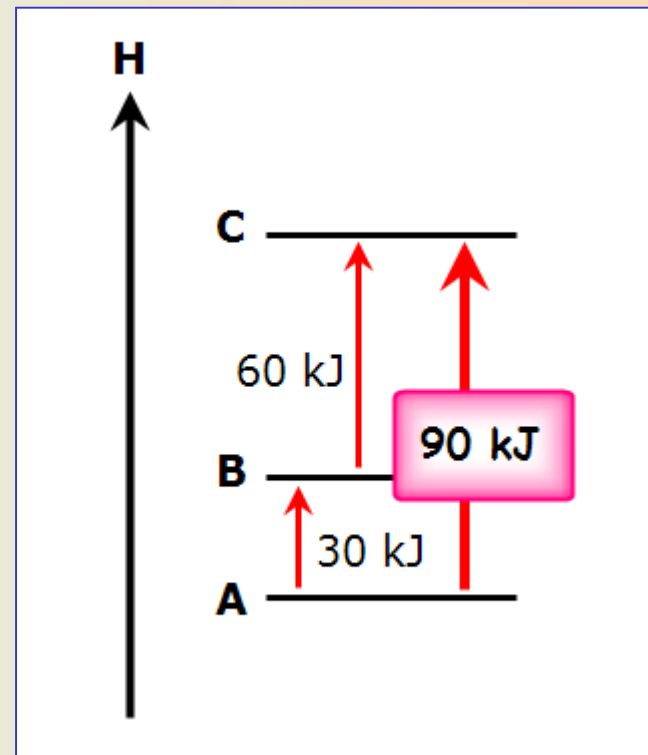
- a) The enthalpy change for the reaction A→C



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- b) Enthalpy diagram for substances A, B, and C and how Hess's law applies



## Hess's Law: Exercises

### Problem #02

Suppose you are given the following hypothetical reactions:



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

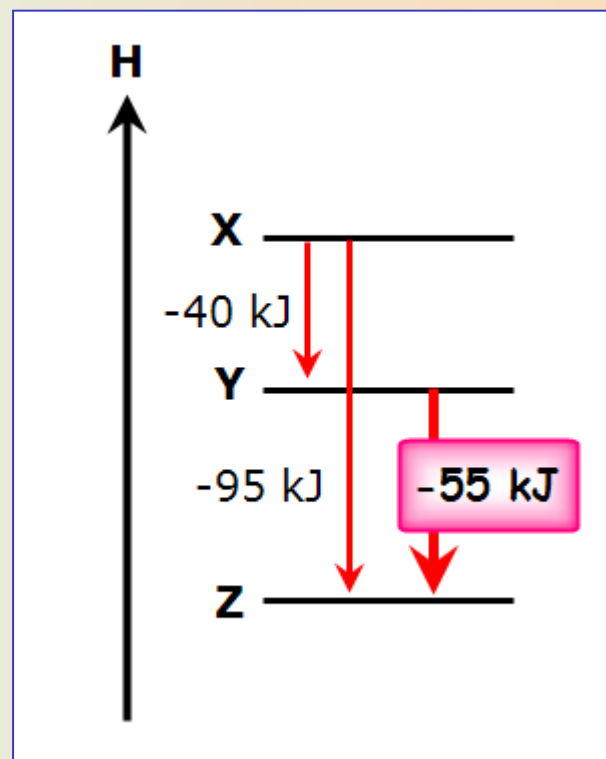
- a) The enthalpy change for the reaction  $Y \rightarrow Z$



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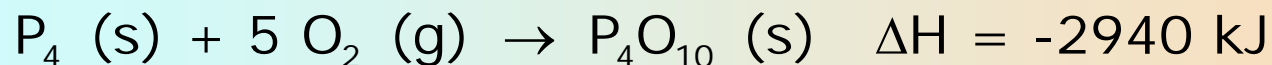
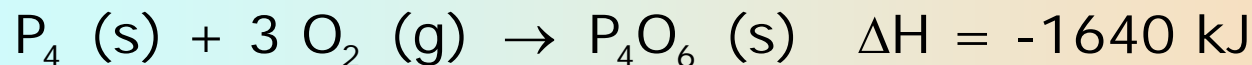
- b) Enthalpy diagram for substances X, Y, and Z



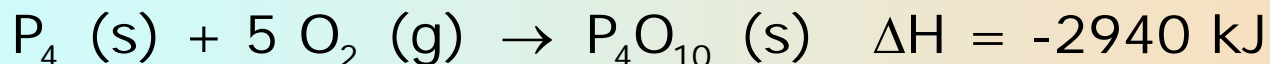
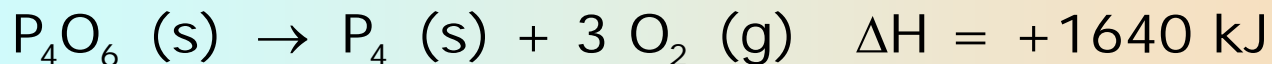
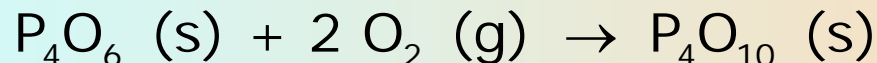
## Hess's Law: Exercises

### Problem #03

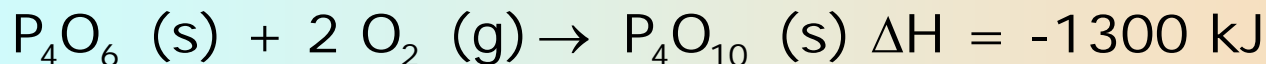
Given the following enthalpies of reaction:



calculate the enthalpy change for the reaction



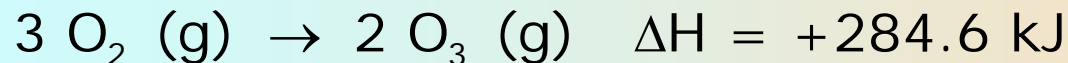
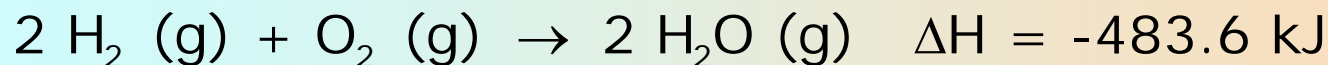
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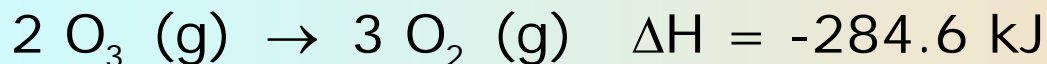
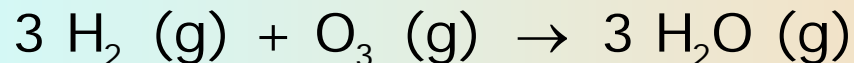
## Hess's Law: Exercises

### Problem #04

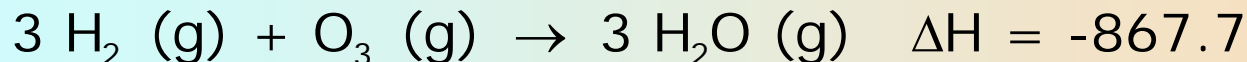
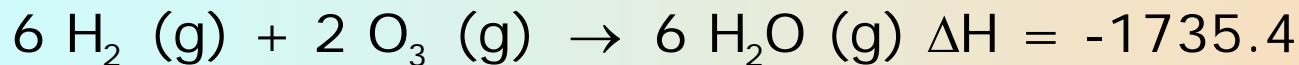
From the following heats of reaction:



calculate the heat of the reaction



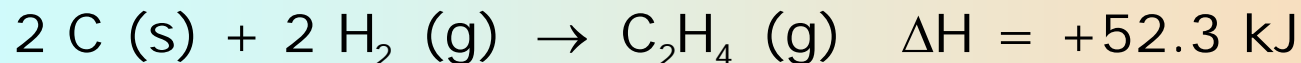
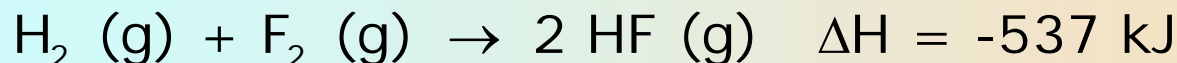
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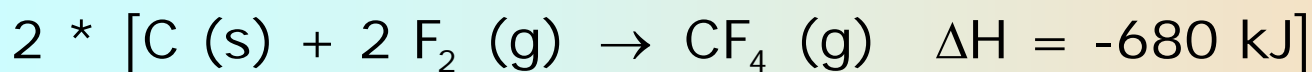
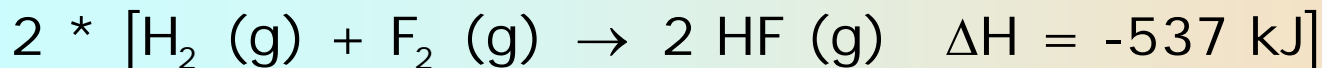
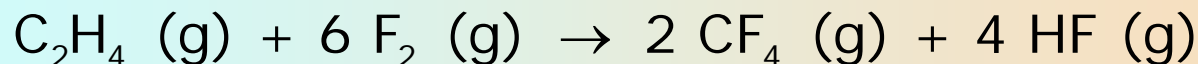
## Hess's Law: Exercises

### Problem #05

From the following enthalpies of reaction:



calculate the enthalpy change for the reaction



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