

## **EXAMPLE GIBBS CALCULATIONS**

2. Plants are able to produce Glucose from Carbon Dioxide and water.

$6CO_{2(g)} + 6H_2O_{(I)} \rightarrow C_6H_{12}O_{6(s)} + 6O_{2(g)}$			$\Delta H = +2800 \text{kJ.mol}^{-1}$	
	CO <sub>2(g)</sub>	$H_2O_{(I)}$	$C_6H_{12}O_{6(s)}$	O <sub>2(g)</sub>
S / J.K.mol <sup>-1</sup>	214	70	218	205

a) Calculate the Entropy Change for the reation.

b) Calculate  $\Delta G$  for the reaction at 298K.

c) Explain why this reaction is **NOT** feasible at **ANY** temperature.