

ENTROPY

Name: _____

$$\Delta S = S_{final} - S_{initial} \quad \Delta S_{total} = \Delta S_{sys} + \Delta S_{surr} \quad \Delta S = \frac{q_{rev}}{T}$$

1. Predict the sign of entropy change of the system for each of the following reactions (i.e. do not use thermodynamic data)



Reasoning: _____

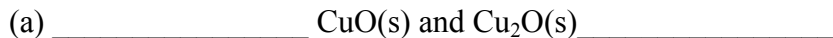


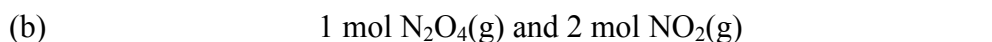
Reasoning: _____



Reasoning: _____

2. Using the supplied Appendix C, compare the standard entropies at 25°C for the following pairs of substances: **Suggest a reason for the difference**





3. Calculate the ΔS° values for the following reactions by using tabulated S° values from Appendix C. In each case explain the sign of ΔS°

