

Chem E-1a
Friday Review Answers
Chapter 6 – Energy Relationships in Chemical Reactions

1. a) $\text{C}_{12}\text{H}_{22}\text{O}_{11} (s) + 12 \text{O}_2 (g) \rightarrow 12 \text{CO}_2 (g) + 11 \text{H}_2\text{O} (l)$
b) $\Delta H^\circ = -5646 \text{ kJ/mol}$
c) $\Delta H^\circ = -5644 \text{ kJ/mol}$

2. Mass of ice = 295 g

3. a) $\Delta H^\circ = 22 \text{ kJ/mol}$
b) $q = 55 \text{ kJ}$
 $w = -6.2 \text{ kJ}$
 $\Delta E = 48.8 \text{ kJ}$