Energy in reactions worksheet

1. How much heat will be released when 6.44 g of sulfur reacts with excess O_2 according to the following equation:

$2S+3O_2 \rightarrow 2SO_3$ Change in heat (ΔH) = -791.4 kj

2. How much heat will be released when 4.72 g of carbon reacts with excess O_2 according to the following equation: $C+O_2 \rightarrow CO_2$ ΔH = -393.5 kj

3. How much heat will be absorbed when 38.2 g of bromine reacts with excess H_2 according to the following equation: $H_2+Br_2 \rightarrow 2HBr$ ΔH = 72.8 kj

4. How much heat will be released when 1.48 g of chlorine reacts with excess phosphorus according to the following equation: $2P+5Cl_2 \rightarrow 2PCl_5$
ΔH = -886 kj

5. How much heat will be released when 4.77 g of ethanol (C_2H_5OH) reacts with excess O_2 according to the following equation: $C_2H_5OH+3O_2 \rightarrow 2CO_2 + 3H_2O$
ΔH = -1366.7 kj