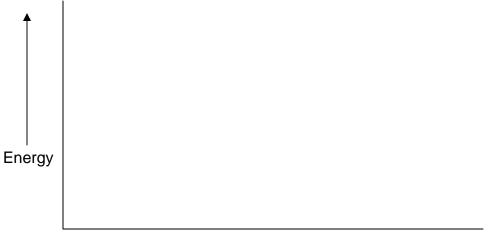Suppose that 1.00 mol of CH_4 (g) reacts completely with O_2 (g) to produce CO_2 (g) and H_2O (g).

Write the <u>balanced</u> chemical equation for this reaction.

Calculate the heat of combustion for this reaction.

Is this reaction exothermic or endothermic?
How do you know?

Sketch an energy diagram for this reaction. Label these parts: (1) activation energy and (2) energy released **OR** energy gained.

Energy

Course of Reaction