

This quiz is take-home and open book, and it is intended that all members of the group contribute to completing it. It is a violation of the Academic Honor Code to sign a quiz that you did not work on. **The quiz is due at the end of class on Thursday, February 18.**

List names in alphabetical order, and give social security numbers! Put names on all pages, and staple pages together

Points

1. Given that the energy produced from combustion of **one mole** of the following substances is as follows:

Substance combusted	Energy produced (kJ/mole)
Kerosene (C ₁₄ H ₃₀)	8700
Propane (C ₃ H ₈)	2,000
Ethanol (C ₂ H ₅ OH)	1,250
Glucose (C ₆ H ₁₂ O ₆)	2,800
Coal (C)	360

- (5) (a) Calculate the energy produced by burning **one pound** of each of these substances.
(One pound = 455 grams)

List names in alphabetical order. **Be sure to staple pages together!**

1. (con't.)

- (10) (b) Calculate the **grams of CO₂** produced from each of these substances if one burned enough of the substance to generate 10^6 kJ of energy. (You will have to write the combustion reaction for each in order to work this one.)