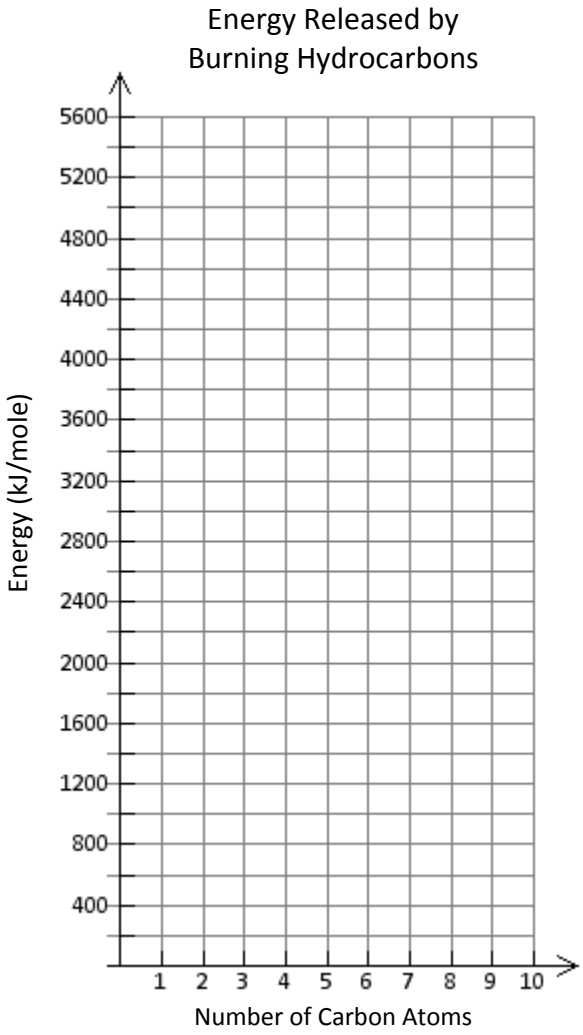
Algebra 1 Unit 1: Patterns Name: _____

1.1.2 Burning Hydrocarbons Date: _____ Group: _____

When hydrocarbons are burned, they create energy. The table below shows approximately how much energy (kJ/mole) is released from completely burning a fixed amount of each hydrocarbon.

Simple Hydrocarbon	Number of Carbon Atoms	Energy Released from combustion (kJ/mole)
Methane	1	920
Ethane	2	1560
Propane	3	2200
Butane	4	2840
Pentane	5	
Hexane	6	
Heptane	7	
Octane	8	



1. Look for the pattern and complete the table above.

2. Describe the pattern in your table.

3. Make a graph to show how much energy is released (kJ/mole) from the combustion of hydrocarbons.

4. Describe the pattern in your graph.

5. Based on the data from the table and graph, which hydrocarbons do you think might be the best to bring back from Titan? _____ Explain your answer.