SPT 161: Food Chemistry

Homework 2: Due Sept 9, 2015

***If you are asked to explain your reasoning, your answers should be written in complete sentences.***

1. What are the four basic food molecules?
	1.
	2.
	3.
	4.
2. For each molecule below, classify it according to the four food molecules you identified in question 1.



1. Circle the molecule(s) in question 2 that are amino acids.
2. Put a square around the molecule(s) in question 2 that can be classified as a pentose.
3. Cellulose and amylose (starch) are polymers.
	1. Define “polymer” in your own words.
	2. What is the building block of these two substances?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. What other food molecule is a polymer, and what is its building block?
4. Draw two water molecules below, and show the partial charges on each atom in the two molecules. Use a dashed line to indicate a hydrogen bond.
5. What is the definition of pH using your own words?
6. Draw an example of a trans – fat and explain what makes their melting point lower then expected.