**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour:\_\_\_**

**PS 9C Review Sheet**

**Organic Chemistry Basics/Carbon**

1. What is organic chemistry?
2. How many bonds can carbon form? What kinds of ways do carbon molecules arrange themselves when bonding to one another?
3. What types of bonds do carbons form with each other?
4. How do monomers and polymers relate to one another?
5. What is a functional group?
6. What is an isomer?
7. People were worried about the whale exploding due to the buildup of what gas from the decomposing organic matter?

**Simple Hydrocarbons**

1. What are hydrocarbons made out of?
2. What are some basic properties of hydrocarbons?
3. What is unique about the following types of hydrocarbons?
   1. Alkanes
   2. Alkenes
   3. Alkynes
4. For what lengths of carbon molecules do the following states of matter exist for hydrocarbons:
   1. Solid:
   2. Liquid:
   3. Gas:

**Drawing/Naming Carbon Compounds**

1. Name the following:
   1. C4H10
   2. C5H12
   3. C2H6
   4. C3H8
2. Draw the structural formula for:
   1. Methane
   2. Octane
   3. Ethane
   4. 2 methyl hexane
   5. 3 methyl octane
   6. 3 methyl hexane
3. Name the following:
   1. CH2 – CH2 – CH2 – CH3

I  
CH3

* 1. CH3 – CH2 – CH – CH2 – CH2 – CH2 – CH2 – CH3

I  
 CH3

* 1. CH3 – CH2 – CH3
  2. CH3 – CH2 – CH2 – CH2 – CH2 – CH3
  3. CH3 – CH2 – CH2 – CH2 – CH2 – CH2 – CH2 – CH3
  4. CH3 – CH – CH2 – CH2 – CH2 – CH3

I  
 CH3

* 1. CH3 – CH – CH2 – CH2 – CH3

I

CH3