

## Chem 103 Spring 2006

### Solution to Assignment 1 Extra Problem

#### Elements, compounds or mixtures?

1. Compound. There is only one kind of unit ( $\text{CS}_2$ ). Each unit has two different kinds of elements in it (C and S).
2. Element. There is only one kind of element (I in the  $\text{I}_2$  units).
3. Mixture. There are two different kinds of units (one is  $\text{C}_6\text{H}_6$  and the other is  $\text{I}_2$ ).
4. Compound. There is only one kind of unit ( $\text{CH}_3\text{CH}_2\text{OH}$  or it could be written  $\text{C}_2\text{H}_5\text{OH}$  or  $\text{C}_2\text{H}_6\text{O}$ ). Each unit has three different kinds of elements in it (C, H and O).
5. Mixture. There are two different kinds of units (He and Xe).
6. Element. There is only one kind of element (F in the  $\text{F}_2$  units).