**CHEM 1114**

**Challenge problems 1A and 1B**

**Due Monday 10 September 2012 in class**

* 1. **Two samples of a boron hydride compound are decomposed.**

**The first sample contains 78.5% B; the second sample contains**

**76.9% B. However, the two samples act chemically identical.**

**Provide an explanation. (3 pts)**

* 1. **A chemistry teacher makes the claim that if a green pea is the nucleus of an atom, that the electronic cloud radius would be about 3 miles away. Is he about right or is he way off in his scaling? (3 pts)**