**Text homework for week of 8/22-8/26**

**(answers to odd numbered problems are at back of text)**

1. **Page 54 problem 35**
2. **Page 54 problem 37**
3. **Page 54 problem 38**

**Using the dimensions found in Figure 1.18, the relative diameter ratio of electronic orbit to that of the nuclear orbit = 10-8 cm/10-13 cm = 105 = 100,000 = x(mm)/0.1 mm =>**

**x = 100000 \*0.1 = 10,000 mm = 10 meters = electronic diameter**

1. **Page 54-55 problem 41**
2. **Page 55 problem 42**

**(p = # protons, n= number of neutrons, e = # electrons**

**C-14=> p+ n = 14, where p = 6 so 6+n=14=> n=8. Since p =6 and isotope is neutral, e= 6.**

**C-12=> p +n =12 where p = 6 so 6+ n =12 => n=6. Since p =6 and isotope is neutral, e= 6.**

1. **Page 55 problem 43**
2. **Page 55 problem 45**