

Physics 220 Assignment 8  
Due Tuesday, 4/14/09

To hand in:

1. TZD 8.21
2. TZD 8.25
3. TZD 8.30
4. An electron in a certain hydrogen atom has an  $\ell$  value of 4. a) What does this tell you about the angular momentum?  
b) Which energy states (n values) could an atom with  $\ell=4$  have?  
c) Now consider a different atom, with  $n=4$  and  $m=2$ . What are the possible values of  $\ell$ ?
5. TZD 8.42
6. TZD 8.43
7. TZD 8.44
8. TZD 8.50