Quantum Mechanics Practice

1) Two electrons occupying the same orbital must have opposite?_____
2) What does the first (principal) quantum number tell us?

3) The letters s,p,d,f represent what? What do they tell you about an electron?

4) Where would you find electrons with relatively small amounts of energy?

5) The maximum number of orbitals for each is the following is:

s_____ p_____ d_____ f_____

6) The maximum number of electrons that each of the following sublevels can have is:

s_____ p_____ d_____ f_____

7) The maximum number of energy levels for any known element is _____.
8) Describe the Bohr model of the atom.

9) What model do we use today? _____

10) What are the four different quantum numbers? (what does each tell you about an electron?)

11) If n = 1, how many sublevels can this level have?_____ List them._____
How many electrons can this level have?_____
If n = 2, how many sublevels can this level have?_____ List them._____
How many electrons can this level have?_____
If n = 3, how many sublevels can this level have?_____ List them._____
How many electrons can this level have?_____
If n = 4, how many sublevels can this level have?_____ List them._____
How many electrons can this level have?_____