**Ch.10 Final Exam review 2012**

Be able to answer and describe each of the following questions or topics.

1. How does the reduction of chromosome number occur during meiosis?
2. What are the stages of meiosis and what occurs during each stage? (You should be able to sketch a diagram and label the stages with proper descriptions)
3. What is the difference between sister chromatids, homologous chromosomes, and tetrads?
4. Describe the difference between haploid and diploid cells.
5. How and when does crossing over occur?
6. Compare and contrast mitosis and meiosis.
7. Who is Gregor Mendel and what was the significance of his experiments to the studying of genetics?
8. How does mendel stop self-pollination in his pea plants?
9. Explain the laws of segregation and independent assortment.
10. Type 2: Use the following terms to describe their role in modern day genetics: P, F1,F2 generations; homozygous, heterozygous, dominant, recessive, genotype, phenotype, monohybrid, dihybrid crosses.
11. Create your own example of a single trait cross and punnett square: you should have all important information and results of the cross.
12. Create your own example of a two-trait cross and you should have all the important information and results of the cross.
13. What is polyploidy?
14. Complete practice problems from Ch.10 assessment pgs. 289-291
    1. 1-7, 14-16,18,19