Mendel and the Gene Idea
Chapter 14

1. What is stated by the laws of segregation and independent assortment?
2. Define allele, homozygous, heterozygous, phenotype, genotype, and testcross.
3. What is a testcross and how is it useful?
4. Understand how to construct a Punnett square and use it to predict genotypic and phenotypic ratios.
5. Be able to solve simple monohybrid and dihybrid crosses (you can use the Biology 12 practice problems for this).
6. Be able to use the rule of multiplication and the rule of addition to predict the outcome of a genetic cross (you can use the Biology 12 practice problems for this).
7. Define complete dominance, incomplete dominance, codominance, multiple alleles, epistasis, and polygenic inheritance.
8. Explain, at the molecular level, how one allele can be dominant over another.
9. How is a pedigree used in genetics?
10. Use examples to help you distinguish between recessively and dominantly inherited disorders.
11. Describe some tools that can be used to identify to carriers of certain alleles.