Answers To Practice Genetic Problems

1. Parents: CcPp x ccPP
   a. 0
   b. 0
   c. 50:50

2. Parents: Cc x Cc
   a. Heterozygous child is two chances out of four or 1/2

3. Hemophilia
   a. Father: X^H_Y mother: X^H_X^h
   b. Males: X^H_Y and X^h_Y
   c. Females: X^H_X^H and X^H_X^h
   d. Male 50% chance hemophilia
   e. Female no chance colorblind

4. Marfan
   a. Unaffected (mm father) and affected (Mm mother, MM is also possible but very unlikely)
   b. 50% chance she has the trait

5. Dogs (EeBb x eebb)
   1/4 erect eared Barker and 1/4 erect eared non-Barker
   1/4 droopy eared Barker and 1/4 droopy eared non-Barker

6. Blood type is AB

7. Lawyers and blood type.
   a. If the second allele were B (father BB) he would be correct, but the second allele could be O (father BO) so he could be the father.
   b. Sure, he could be the father, but this doesn't prove he is.

8. The chances of having a hearing child are 1 out of 8

9. Gene for hairy ears is not found on the X chromosomes, but is found on the Y chromosome which boys inherit.

10. The X chromosome has lots of genetic information needed to maintain body functions, but the Y has very little.

11. XXX; XXY (Klinefelter's); XO (Turner's); YO (aborted)