

Genetics Problems Review Answer Key

1. $3/4$
2. A
3. Incomplete Dominance
4. A, B, AB, O
5. A, B
6. C
7. C
8. E
9. 0% (X^r from mom, and X^R from dad)
10. 1 normal (carrier) female: 1 normal male
11. Pedigree B must be X-linked, recessive. Only males have the trait in Pedigree B, and in Pedigree A, if the trait was recessive, then individual III-14 should have inherited the trait.
12. $1/8$
13. 1 cream, long: 1 cream, short: 1 white, long: 1 white, short
14. a. See next page
b. 16.4%
15. a. $b^2 = 49\% = .49$
 $b = \sqrt{.49} = .7 = 70\% =$ frequency of the recessive allele
b. $a + b = 1$, $a + .7 = 1$, $a = .3$
 $a^2 = .09 = 9\%$ of the population is homozygous dominant
c. $2ab = 2(.3)(.7) = .42 = 42\%$ of the population is heterozygous