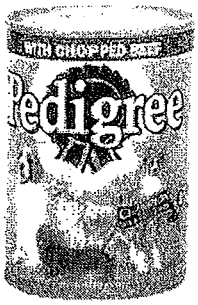


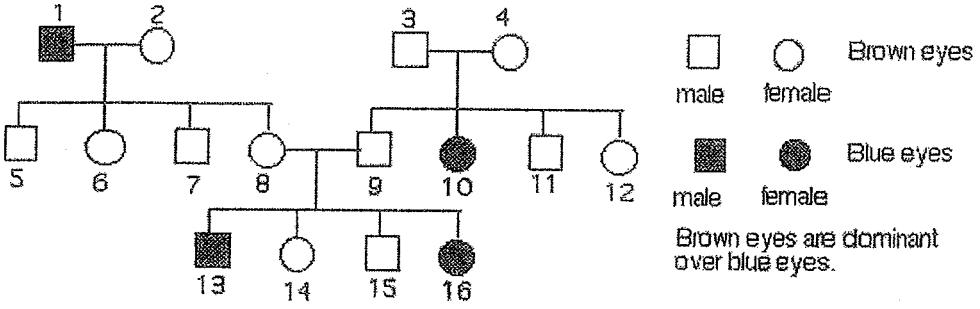
Pedigree Project

Name

date

Task:

1. You will create a pedigree illustration that includes at least six family members and three generations (make two copies).
2. Use squares for males and circles for females. Number each figure as shown below.



3. Pick two human genetic traits from the list provided by your esteemed professor. (or visit http://www.mercy.edu/faculty/knizeski/pedigree%20project.html)
4. Go home and do a survey to determine who in your family expresses the dominant or recessive phenotype for each trait. Record these data in a chart for each trait (example below).

Straight Thumb

Name	Phenotype	Possible genotype
1.		
2.		
3.		

5. In your pedigree, identify individuals with the <u>less common</u> phenotype with a SHADED figure.
6. From these data, you will determine the genotype of each individual in your family (as well as your data will allow anyway). Record each person's genotype in the chart.
7. Submit your two pedigrees with an analysis of your findings for each. In each analysis:
   * describe how your pedigree reflects one of the following patterns:
     Autosomal Dominance — Sex-linked Dominance
     Autosomal Recessive — Sex- linked Recessive
   * discuss any problems or limitations that you encountered in this study

Good Luck!

Pedigree Rubric

Your pedigree will be graded according to the following criteria:

Your pedigree contains the required elements and is constructed correctly (everything must be done skillfully on the computer)	1	2	3	4	5
Your chart contains required and accurate information including numbers, genotypes, phenotypes	1	2	3	4	5
You deduced the correct genotypes of each person based on all the available phenotype data (some persons may be impossible to know)	1	2	3	4	5
Your conclusions and analysis are accurate and express a comprehensive understanding of pedigrees and inheritance … You define "autosomal" vs "sex-linked" "dominant" vs. "recessive" and Apply these patterns to your pedigree (each conclusion should be minimum of 10 sentences).	1	2	3	4	5

Final grade (2 pedigrees) = ___/ 40

Extra credit for creativity and presentation = ____

Final Grade = _____/ 40