WORD LIST

Sex Determination

- Autosomal -- Autosome
- Sex Chromosome
  - Protenor Mode
  - Lygaeus Mode
    - Heterogametic sex
    - Homogametic sex

Sex Linkage

- Hemizygous
- X-Linked
- Y-linked -- Holandric

Sex Limited

Sex Influenced

SEX LINKAGE

	Cross A	Cross B
P_1	Red x White Female Male	White x Red
F_1	All Red	1 Red 1 White
F_2	3 Red 1 White	1 Red 1 White

More Sex Related Modes of Inheritance

Autosomal loci that are affected by the sex of the individual

SEX LIMITED -- A trait that is expressed in only one sex even though both sexes can carry the allele

SEX INFLUENCED -- A trait whose expression is conditioned or influenced by the sex of the individual

The presence of tusks is governed by a holandric gene in a certain species of mammal. When a tusked male is mated with non-tusked females, among 100 offspring we would expect to find: (be specific)

Plumage color in chickens is controlled by a sex-linked gene. The dominant allele at this locus, **G**, produces silver plumage, while the expression of its recessive counterpart, **g**, results in gold plumage.

Identify the phenotypes and genotypes of the progeny predicted to result from mating of a gold-plumed rooster with a silver-plumed hen.

A dominant epistatic allele (***W***) in cats results in the production of white hair color. Homozygous ***ww*** allows color to be produced. The expression of black and orange hair colors is controlled by a different locus with codominant, sex linked alleles. Homozygous females are either orange (***OO***) or black (ΘΘ); the heterozygote (***O***Θ) is tortoiseshell.

An orange female is bred to a white male and produces a litter (F_1) of 3 white females and 2 white males. The cats in the F_1 are bred and and produce:

6 white males
5 white females
1 orange males
1 tortoiseshell female
1 orange female

A. What are the genotypes of all the kittens in the F_1 litter?