Quiz: Monohybrid Cross **Name:**_____

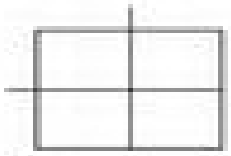
I. In bird dogs, barking while trailing (B) is dominant to silent while trailing (b). A heterozygous barking trailer is bred to a silent female trailer. Various offspring resulted. SHOW YOUR WORK!!!

_____1 What is the genotype of the male animal?

_____2 What is the genotype of the female animal?

_____3 How many different genotypes are possible among the offspring?

_____4 What proportion of the offspring will be heterozygous barkers?



Genotypes	Phenotypes

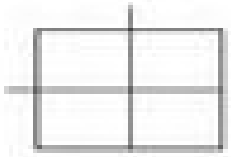
II. In man, dimples (D) is dominant over the gene for no dimples (d). A man who has dimples, but whose mother had no dimples is married to a woman who is heterozygous for dimples.

_____5 What is the genotype of the man?

_____6 What is the genotype of the woman?

_____7 How many different genotypes are possible among their offspring?

_____8 What proportion of the children would be expected to be homozygous dimpled?

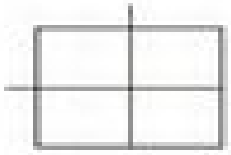


Genotypes	Phenotypes

III. Pendulous ear lobes (E) are dominant over adherent ear lobes (e). A man who had pendulous ear lobes, but whose mother had adherent ear lobes, marries a woman who has adherent ear lobes.

_____9 What is the probability that the children will have pendulous ear lobes?

_____10 What is the probability that the children will be heterozygous for ear lobes?



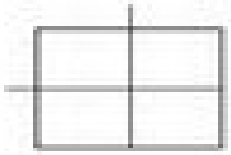
Genotypes	Phenotypes

IV. PKU, phenylketonuria, is a disease caused by a recessive gene. Two recessive genes must be present in order for the disease to occur.

_____11. If two healthy parents have a child with PKU, what are their genotypes?

_____12.

_____13. What are their chances of having another child with the same disease?



Genotypes	Phenotypes