

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Hour: \_\_\_\_\_

### **Genetics Practice Problems Set #1**

1. For each genotype below, indicate whether it is heterozygous dominant, homozygous dominant, or heterozygous recessive.

AA	Ee	li	Mm
Bb	ff	Jj	nn
Cc	Gg	kk	oo
DD	HH	LL	Pp

2. For each of the **genotypes** below determine what **phenotypes** would be possible.

*Purple flowers are dominant to white flowers.*

PP \_\_\_\_\_

Pp \_\_\_\_\_

pp \_\_\_\_\_

*Brown eyes are dominant to blue eyes*

BB \_\_\_\_\_

Bb \_\_\_\_\_

bb \_\_\_\_\_

*Round seeds are dominant to wrinkled seeds.*

RR \_\_\_\_\_

Rr \_\_\_\_\_

rr \_\_\_\_\_

*Bobtails in cats are recessive.*

TT \_\_\_\_\_

Tt \_\_\_\_\_

tt \_\_\_\_\_

3. For each **phenotype** below, list the **genotypes** (remember to use the letter of the dominant trait)

*Straight hair is dominant to curly.*

\_\_\_\_\_ straight

\_\_\_\_\_ straight

\_\_\_\_\_ curly

*Pointed heads are dominant to round heads.*

\_\_\_\_\_ pointed

\_\_\_\_\_ pointed

\_\_\_\_\_ round

**Genotype** means \_\_\_\_\_

**Phenotypes** means \_\_\_\_\_

1. Yellow flowers (Y) are dominant to white flowers (y). What are the genotypes and phenotypes for the following?

	Genotype	Phenotype
Homozygous dominant		
Homozygous recessive		
Heterozygous		

2. Curly hair ( C ) is dominant to strait hair ( c ). What are the genotypes and phenotypes for the following?

	Genotype	Phenotype
Homozygous dominant		
Homozygous recessive		
Heterozygous		

3. Brown eyes (B) are dominant to hazel eyes (b). What are the genotypes and phenotypes for the following?

	Genotype	Phenotype
Homozygous dominant		
Homozygous recessive		
Heterozygous		

4. Tall plants (T) are dominant to short plants (t). What are the genotypes and phenotypes for the following?

	Genotype	Phenotype
Homozygous dominant		
Homozygous recessive		
Heterozygous		