

Genetics

Simple genetics practice

1. For each genotype, indicate whether it is heterozygous (HE) or homozygous (HO)

AA ____	GG ____	Mm ____
Bb ____	HH ____	nn ____
Cc ____	li ____	OO ____
Dd ____	Jj ____	Pp ____
Ee ____	kk ____	
ff ____	LI ____	

2. For each of the genotypes below, determine the phenotype.

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

RR _____

Rr _____

rr _____

Bobtails are recessive (long tails dominant)

TT _____

Tt _____

tt _____

3. For each phenotype, 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

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4. Set up the square for each of the crosses listed below. The trait being studied is round seeds (dominant) and wrinkled seeds (recessive)

Rr x rr

What percentage of the offspring will be round? _____

Rr x Rr

What percentage of the offspring will be round? _____

RR x Rr

What percentage of the offspring will be round? _____

5. A TT (tall) plant is crossed with a tt (short plant).

What percentage of the offspring will be tall? _____

6. A Tt plant is crossed with a Tt plant.

What percentage of the offspring will be short? _____