

Mr. Soucy - Biology 12 Genetic practice problems: Solve the following

1. Define genotype, phenotype?
2. How are Punnett squares used?
3. What is probability?
4. Heterozygous, homozygous. Explain the difference.
5. For each genotype below, indicate whether it is heterozygous (He) or homozygous (Ho)

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

6. For each of the following phenotypes determine what phenotypes are possible .

A) Purple flowers are dominant to white flowers	B) Bobtails in cats are recessive
PP _____	TT _____
Pp _____	Tt _____
pp _____	tt _____

C) Brown eyes are dominant to blue eyes	D) Round seeds are dominant to wrinkled
BB _____	RR _____
Bb _____	Rr _____
bb _____	rr _____

7. For each phenotype below, list the genotypes (remember list dominant trait first).

A) Straight hair is dominant to curly	B) Pointed heads dominant to round
_____ straight	_____ pointed
_____ curly	_____ round

8. Set up Punnett squares for each of the following crosses listed.
Round seeds are dominant to wrinkled

RR x rr	What percentage of offspring would be round?
Rr x rr	What percentage would be round?
RR x Rr	What percentage would be round?
Rr x Rr	What percentage would be round?