

Directions: Use your notes to complete all of the following Punnett squares.

Pea Plant Traits							
	Seed Shape	Seed Color	Pod Shape	Pod Color	Flower Color	Flower Location	Plant Size
Dominant Traits	Round	Yellow	Inflated	Green	Purple	Axial	Tall
	R	Y	I	G	P	A	T
Recessive Traits	Wrinkled	Green	Constricted	Yellow	White	Terminal	Short (Dwarf)
	r	y	i	g	p	a	t

1. Cross  $Yy$  and  $Yy$  and determine the genotypes and phenotypes of the offspring.


Genotypes:

Phenotype:

2. Cross a pea plant with wrinkled seeds with a pea plant with heterozygous round seeds. Determine the genotypes and phenotypes of the offspring.


Genotype:

Phenotype:

3. In purple people eaters, one horn is dominant to no horns. What would the genotypic and phenotypic ratios be if you crossed a homozygous horned purple people eater with a purple people eater with no horns?


Genotype:

Phenotype:

4. Brown hair is dominant to red hair. Amy has brown hair but her dad's hair is red. Amy marries Joe who has red hair. What are the chances that their first-born child will have brown hair?

Amy's Genotype

Joe's genotype


Chances that first-born child will have brown hair?

5. In pea plants, inflated pods are dominant to constricted pods. Show the cross between a true-breeding inflated pod plant with a true-breeding constricted pod plant. What are the expected phenotypes and in what proportion?


Phenotypes: