

DIHYBRID GENETICS PROBLEMS

Name: _____

1. In garden peas, tall (T) vine is dominant over short (t) vine, and round pea pod (R) is dominant over wrinkled pea pod (r). Cross a homozygous tall, round pea plant with a homozygous short, wrinkled pea plant. Show the genotypes and phenotypes of the F₂ offspring, and the probability of each.

_____ Genotype of the homozygous tall, round pea plant

_____ Genotype of the homozygous short, wrinkled pea plant.

Genotypes	Phenotypes

2. In garden peas, tall (T) vine is dominant over short (t) vine. Yellow (Y) seed color is dominant over green (y) seed color. Cross a homozygous tall, yellow seeded plant with a homozygous tall, yellow seeded plant.

_____ Genotypes of the parent plants

Genotypes	Phenotypes

- _____ What is the probability for a tall offspring?
- _____ What is the probability for a short offspring?
- _____ What is the probability for a yellow offspring?
- _____ What is the probability for a green offspring?
- _____ What is the probability for a tall yellow offspring?
- _____ What is the probability for a tall green offspring?
- _____ What is the probability for a short yellow offspring?
- _____ What is the probability for a short green offspring?