

Name: _____

Date: _____ Period: _____

Punnett Square Practice #1

Directions: Read each problem carefully. Make a “key” for the trait, identify the parents involved in the cross and the gametes each parents produces. Show the Punnett square and give the ratio of both genotype and phenotype.

Before you begin - Define the following terms...

- Homozygous
- Heterozygous
- Phenotype
- Genotype
- Dominant
- Recessive

1. In rabbits, black fur is dominant over white fur. Show the cross of a heterozygous black male with a homozygous white female.

Key:

Parents & Gametes:

2. Tall is dominant over short in pea plants. Show the cross of a homozygous short plant is crossed with a homozygous tall plant.

Key:

Parents & Gametes:

3. In humans, free-ear lobes are dominant to attached. Two parents that are both heterozygous free-ear lobed are expecting a child. What are the chances that the child will have free ear lobes? What about attached?

Key:

Parents & Gametes:

4. Wrinkled seed are recessive to smooth seeds. Show a plant that always produces wrinkled seeds crossed with a heterozygous smooth seeds producing plant.

Key:

Parents & Gametes:

5. As in the previous problem... Show a heterozygous smooth plant crossed with another heterozygous smooth seed producing plant.

Key:

Parents & Gametes:

6. Blue eyes are dominant to red eyes in rabbits. Show a heterozygous blue-eyed rabbit crossed with a red-eyed rabbit.

Key:

Parents & Gametes:

7. In fruit flies, red eyes are dominant over white eyes. Show a cross between a homozygous red eye fruit fly with a white-eye fruit fly.

Key:

Parents & Gametes: