

Monohybrid Cross Worksheet

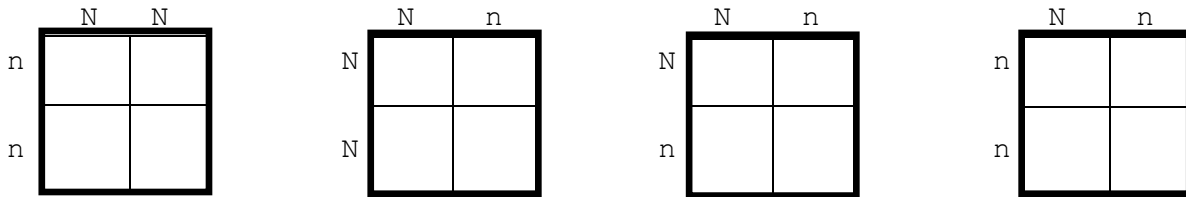
Name _____ Period _____

Part A: Vocabulary

Match the definitions on the left with the terms on the right.

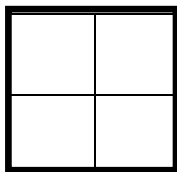
- | | |
|--|-----------------|
| 1. genotypes made of the same alleles | A. alleles |
| 2. different forms of genes for a single trait | B. dominant |
| 3. gene that is always expressed | C. heterozygous |
| 4. gene that is expressed only in the homozygous state | D. homozygous |
| 5. genotypes made of two different alleles | E. recessive |

6. In corn plants, normal height, N, is dominant to short height, n. Complete these four Punnett squares showing different crosses. Then, shade red all the homozygous dominant offspring. Shade green all the heterozygous offspring. Leave all the homozygous recessive offspring unshaded.



7. In guinea pigs, short hair, S, is dominant to long hair, s. Complete the following Punnett squares according to the directions given. Then, fill in the blanks beside each Punnett square with the correct numbers.

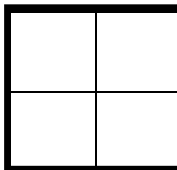
a. One guinea pig is Ss and one is ss.



Expected number of offspring:

- Short hair (SS or Ss)
- Long hair (ss)

b. Both guinea pigs are heterozygous for short hair.



Expected number of offspring:

- Short hair
- Long hair

Part C: Monohybrid Cross Problems - Show your work.

8. Hornless (H) in cattle is dominant over horned (h). A homozygous hornless bull is mated with a homozygous horned cow. What will be the genotype and phenotype of the first generation?

9. In humans, being a tongue roller (R) is dominant over non-roller (r). A man who is a non-roller marries a woman who is heterozygous for tongue rolling.

Father's phenotype _____

Mother's phenotype _____

Father's genotype _____

Mother's genotype _____

What is the probability of this couple having a child who is a tongue roller? _