

Name _____

Date _____

Punnett Square Practice

1. For each of the genotypes below, determine the phenotype.

Purple flowers are dominant to white flowers.

PP _____ pp _____ Pp _____

Hairy knuckles are dominant to non-hairy knuckles in humans.

HH _____ Hh _____ hh _____

Bobtails in cats are recessive. Normal tails are dominant.

nN _____ nn _____ NN _____

Smooth seeds are dominant to wrinkled seeds in pea plants.

rR _____ RR _____ rr _____

2. For each of the following genotypes, write whether it is homozygous dominant (HD), heterozygous (He) or homozygous recessive (HR).

AA- _____ Ff- _____ Aa- _____ gg- _____

Tt- _____ tT- _____ aa- _____ JJ- _____

BB- _____ Bb- _____ bb- _____ dd- _____



Use the following information for questions 3 & 4:

In dogs, the gene for fur color has two alleles. The dominant allele (F) codes for gray fur and the recessive allele (f) codes for black fur.

3) The female dog is heterozygous. The male dog is homozygous recessive. If these two dogs reproduce:

What percentage of their offspring will be gray? _____% black? _____%

What is the ratio of homozygous offspring to heterozygous offspring? _____ : _____

4) The female dog is heterozygous. The male dog is heterozygous. If these dogs reproduce:

What percentage of their offspring will be homozygous dominant? _____%

homozygous recessive? _____% heterozygous? _____%

What is the ratio of gray dogs to black dogs? _____ : _____
