

PUNNETT SQUARE PRACTICE

Name: _____

Date: _____

A Little added challenge

Use the following for questions 7-9:

In dogs, there is a hereditary deafness caused by a recessive gene, "d." A kennel owner has a male dog (Gilbert) that she wants to use for breeding purposes if possible. The dog can hear.

7) What are the two possible genotypes of Gilbert?

8) If the dog's genotype is Dd, the owner does not wish to use him for breeding so that the deafness gene will not be passed on. This can be tested by breeding the dog to a deaf female (dd). Fill in these two Punnett squares to illustrate the crosses for your possible male genotypes (from question 9) with the deaf female dog.

Possible Cross 1

% of possible Genotypes:

DD: _____

Dd: _____

dd: _____

_____	_____
_____	_____
_____	_____

% of possible Phenotypes:

Deaf pups: _____

Hearing pups: _____

Possible Cross 2

% of possible Genotypes:

FF: _____

Ff: _____

ff: _____

_____	_____
_____	_____
_____	_____

% of possible Phenotypes:

Deaf pups: _____

Hearing pups: _____

9) Explain how could you tell the genotype of Gilbert's male dog?