



Name: _____ Period: _____

Genetics Practice Review for Monohybrids (one trait):

1. For each of the genotypes (letters) listed write a phenotype (description).

In guinea pigs, short hair is dominant to long hair:

HH = _____ Hh = _____ hh = _____

2. For each of the phenotype listed write a genotype.

In guinea pigs, black eyes are dominant to red eyes:

_____ = Black eyes _____ = Black eyes _____ = Red eyes



Complete the Punnett squares for each of the following crosses. Write your answer in PERCENTAGE.

3. Bb x bb

	B	b
b		
b		

How many guinea pigs will have black eyes _____ red eyes _____

4. bb x BB

	B	B
b		
b		

How many guinea pigs will have black eyes _____ red eyes _____

5. Bb x Bb

	B	b
B		
b		

How many guinea pigs will have black eyes _____ red eyes _____

LEVEL TWO: NORMAL

Setup and complete punnett squares for each of the crosses.

Reminder: In guinea pigs, black eyes (BB, Bb) are dominant to red eyes (bb)
Short hair (HH, Hh) is dominant to long hair (hh)

6. A guinea pig with long hair (hh) is crossed with one that has short hair (H H).
Set up the Punnett square below.



What percentage of the offspring will have short hair? _____

7. A guinea pig with long hair (hh) is crossed with one that has short hair (H h).
Set up the Punnett square below.

What percentage of the offspring will have short hair? _____

8. A guinea pig with black eyes (B b) is crossed with one that also has black eyes (B b).
Set up the Punnett square below.

What percentage of the offspring will have black eyes? _____ red eyes? _____

LEVEL THREE: YOU GOT THIS!

Heterozygous means that the individual has two different letters, for example Aa, Bb, Dd.
Homozygous means that the individual has two same letters, for example AA, bb, DD, eee

Cats can have a trait where their ear folds down, a breed called the "Scottish Fold," displays this phenotype in most breedings. The gene for folded ears is dominant (E) and the gene for straight ears (e) is recessive.

1. Write the three genotypes that are possible (choose your letters) and describe their phenotypes. Remember, genotypes have two letters and the phenotype describes what the cat looks like (folded or straight).

2. Show the cross of two heterozygous cats. What percentage of their offspring will have folded ears?

3. A heterozygous cat is crossed with a cat that has straight ears. What percentage of their offspring will have folded ears?

4. If both parents have straight ears, What percentage of the kittens will have straight ears also?

