

Name _____ Date _____ Per _____ Score _____

Punnett Square Quiz

1) Having an unattached earlobe is a condition where the person has extra skin hanging from the bottom of their ear. It is a recessive trait. Thus, in order to have this condition a person must have the genotype "ee". Draw the punnett square that shows the percentage of kids if parents with this genotype mate: $Ee * Ee$

2) Tay-Sachs is a fatal, recessive disease that causes the victim's head to swell. A person must have the genotype "nn" in order to have the disease. (N = normal gene) Draw the punnett square that shows the possibilities if: $Nn * NN$

3) Brown eyes are dominant to blue eyes. What genotype would parents need to have in order to have brown and blue-eyed kids? Show me the genotypes of the parents and the punnett square that could give rise to both types of children. Let B = Brown and b = blue.

4) "Huge" is dominant to small. A huge penguin is bred to a homozygous recessive penguin (hh). This test cross shows that half of the resulting children are huge and the other half is small. What is the actual genotype of the huge penguin? Use a punnett square to show me your answer.

5) A homozygous dominant monster (EE) has two eyes. It breeds with a homozygous recessive (ee) monster that is a cyclops. Will the kids have two eyes or one? Show me your answer with a punnett square.

6) A **Dihybrid** critter breeds with another. $\begin{array}{c} \underline{\text{Mom}} \\ \text{Bb} \\ \text{Ee} \end{array} * \begin{array}{c} \underline{\text{Dad}} \\ \text{Bb} \\ \text{Ee} \end{array}$

Circle Body is dominant (B): Square Body is recessive: (bb)
 Round Ears is dominant (E): Triangle Ears is recessive: (ee)

- a) Make and fill out a **LARGE** punnett square.
- b) Carefully write all the genotypes of the critters in the box.
- c) Draw all of the creatures in their box.
