Punnett Squares – Part Deux

Some of these Punnett Squares are more difficult than the ones we did last class. Just remember, each child must get a copy of EACH gene from EACH parent. Think about the combinations! *(*hint – the grid can be bigger than 4x4 and more than 1 letter can go at the top/side of each column/row)*

1. A long stemmed plant (Hh) is crossed with a short stemmed plant (hh). What are the percentages of possible offspring?

2. A heterozygous dominant long tailed rat is crossed with a homozygous recessive short tailed rat. What are the percentages of possible offspring?

3. A mouse that is heterozygous dominant for big ear (Ee) AND heterozygous dominant for a pink nose (Pp) is crossed with a mouse that is homozygous recessive for small ears (ee) AND heterozygous dominant for a pink nose (Pp) (black is recessive).
   *(*I have given you the necessary Punnett square to solve this question)*

   a) Define your letters (what is dominant, what is recessive).

   b) What is the genotype for each parent?

   c) Fill in the Punnett Square. What are the percentages of possible offspring? *(more than 1 letter can go in each column/row header)*

4. A pea plant that is homozygous recessive for narrow leaves AND heterozygous dominant for long stems is crossed with another pea plant that is heterozygous dominant for wide leaves AND homozygous dominant for long stems (short stems is recessive).

   *(*I have given you the necessary Punnett square to solve this question)*

   a) Define your letters (what is dominant, what is recessive).

   b) What is the genotype for each parent?

   c) Fill in the Punnett Square. What are the percentages of possible offspring?
