DIRECTIONS: Complete these problems on a sheet of lined paper. I will collect this paper tomorrow.

1. In pea plants, tall (T) plants are dominant over short (t) plants. Complete the following crosses and give the genotypic and phenotypic ratios and percentages of offspring.

    a. TT x tt

    b. Tt x tt

    c. Tt x Tt

2. In pea plants, purple flowers (P) are dominant over white (p) flowers. Complete the following crosses and give the genotypic and phenotypic ratios of offspring.

    a. A heterozygous purple plant is crossed with a homozygous purple plant.

    b. A cross between two pea plants produces offspring in which approximately 50% of the flowers are white and 50% are purple. What are the genotypes of the parents? Complete a Punnett square. Don't forget your percentages.

3. A cross between two purple pea plants yields approximately 25% of the offspring exhibiting white flowers. What are the genotypes of the parents? Complete a Punnett square. Don't forget your percentages.

4. A widow's peak in humans is determined by a dominant/recessive inheritance. A person who is purebred for widow's peak is crossed with a person who is purebred for no widow's peak. Which trait is dominant and which is recessive? Complete a Punnett square. Don't forget your percentages.