AGRI 2213 GENETIC IMPROVEMENT

1. T = Dominant trait for tall
   t = Recessive trait for shortness
   Cross TT with tt. Show the crosses and the punnet squares in the first generation. Then self the plant to obtain the F_2 generation. List genotype and phenotype, also both genotypic and phenotypic ratios for complete dominance.

2. T = Dominant trait for tall
   t = Recessive trait for shortness
   Cross TT with tt. Show the crosses and the punnet squares in the first generation. Then self the plant to obtain the F_2 generation. List genotype and phenotype, also both genotypic and phenotypic ratios for incomplete dominance.

3. A = Dominant trait for straight
   a = Recessive trait for curly
   Cross two heterozygous plants. Show the crosses and the punnent squares in the first generation. List genotype and phenotype, also both genotypic and phenotypic ratios for complete dominance.

4. A = Dominant trait for straight
   a = Recessive trait for curly
   Cross two heterozygous plants. Show the crosses and the punnent squares in the first generation. List genotype and phenotype, also both genotypic and phenotypic ratios for incomplete dominance.

5. G = green g = white
   Cross a homozygous recessive plant with a heterozygous plant. Show the crosses and punnet square in the first generation. List the genotype and phenotype, also both genotypic and phenotypic ratios. *This is incomplete dominance.

6. R = Dominant trait for round T = spicy
   r = Recessive trait for square t = mild
   Cross a dihybrid pepper plant (2 genes) with the following characteristics. Obtain the first generation, self this generation to obtain the next generation. (Label all generations, draw the punnet square, list the genotypes, phenotypes, genotypic ratio, and phenotypic ratio of each f generation.)

Round, mild X Square, spicy