Pedigree Practice

1. D = dimples (dominant trait)   d = no dimples (recessive trait)

A man and woman have three children. Two sons and a daughter. The man does not have dimples and the woman has dimples.   All three of their children have dimples.   Two of their sons have children, their daughter does not.

The oldest son marries a woman with no dimples. They have three children.   Their oldest boy has dimples, the daughter has dimples and the youngest boy does not have dimples.

The youngest son marries a woman with dimples. They have 2 daughters and one son. Their daughters have dimples but their son does not.

Complete the pedigree chart for each individual's phenotype and genotype.

2.   F = freckles (dominant trait)   f = no freckles (recessive trait)

A man with freckles marries a woman with freckles.   They have three children, a boy and two girls. The boy does not have freckles and both daughters have freckles.

The oldest son marries a woman that does not have freckles. What are the phenotype and genotype of their children?

The youngest daughter marries a man with no freckles.   They have two children. The daughter has dimples but their son does not.

Complete the pedigree chart by writing down the genotype and phenotype for each person on the chart.

Is there anyone on the pedigree chart that you could not definitively say what their genotype was? Explain.