**Pedigree #1**

In the pedigree below, shaded individuals are affected by a genetic condition. Could the condition in this pedigree be:

* Autosomal dominant?
* Autosomal recessive?
* X-linked dominant?
* X-linked recessive?
* Y-linked?

**Pedigree #2**

In the pedigree below, shaded individuals are affected by a genetic condition. Could the condition in this pedigree be:

* Autosomal dominant?
* Autosomal recessive?
* X-linked dominant?
* X-linked recessive?
* Y-linked?

**Pedigree #3**

In the pedigree below, shaded individuals are affected by a genetic condition. Could the condition in this pedigree be:

* Autosomal dominant?
* Autosomal recessive?
* X-linked dominant?
* X-linked recessive?
* Y-linked?

**Pedigree #4**

In the pedigree below, shaded individuals are affected by a genetic condition. Could the condition in this pedigree be:

* Autosomal dominant?
* Autosomal recessive?
* X-linked dominant?
* X-linked recessive?
* Y-linked?

**Pedigree #5**

In the pedigree below, shaded individuals are affected by a genetic condition. Could the condition in this pedigree be:

* Autosomal dominant?
* Autosomal recessive?
* X-linked dominant?
* X-linked recessive?
* Y-linked?

The pedigree below shows a family’s pedigree for red-green colorblindness.

1. Which gender can be carriers of colorblindness and not have the disorder?
2. How is this trait inherited?
3. Why does individual IV-7 have colorblindness?
4. Why must all the daughters of generation II carry the colorblind gene?
5. Write the genotypes of all individuals in the pedigree underneath their box/circle.

I

II

III

IV

1. If individual IV-6 married a man with normal eyesight, what is the probability that their daughters and sons will have colorblindness? Do a Punnett square to illustrate your answer.

Shown below is a pedigree for the inheritance of achondroplasia, a form of dwarfism.

1. Is the gene dominant or recessive?
2. Autosomal or sex-linked?
3. Write the genotype of the following individuals:

I -1 \_\_\_\_\_\_\_ I – 2 \_\_\_\_\_\_\_\_ II-2 \_\_\_\_\_\_\_\_ II-3 \_\_\_\_\_\_\_ II-6 \_\_\_\_\_\_\_ II-7 \_\_\_\_\_\_\_ III – 5 \_\_\_\_\_\_