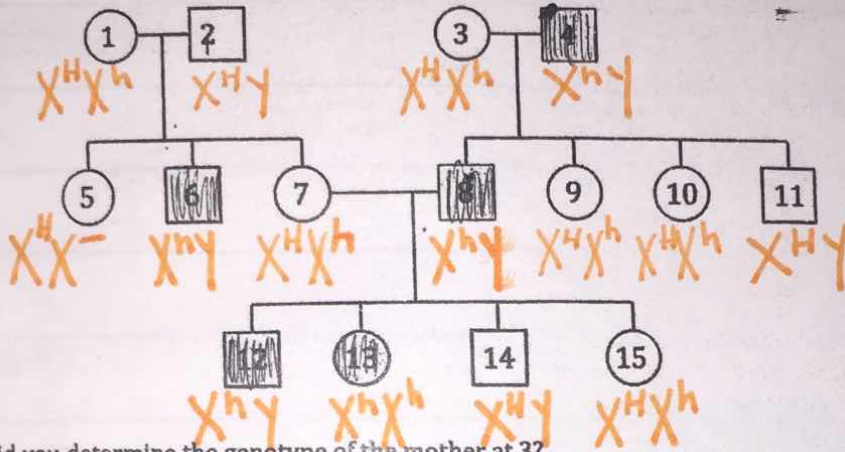


Genetics Practice Problems: Pedigree Tables # 3

Remember the following when working pedigree tables:

- 1) Circles are females and squares are males.
 - 2) A shaded circle or square indicates that a person has the trait.
- Hint Colorblindness is a sex linked trait.

The pedigree seen below is for colorblindness. Shaded individuals are colorblind. First, determine the probable genotype of persons 1 - 15; then, answer the questions below the table.



How did you determine the genotype of the mother at 3?

One child is colorblind (male) so mom must be a carrier (boys get the 'X' from mom)

Number 8 was colorblind just like his father. Where did the son at 8 get his allele for colorblindness?

from his mom

Neither numbers 1 nor 2 were colorblind. How did they have a colorblind son (6)?

Mom was a carrier + son receives 'X' from mom

What must be the genotypes of the parents of a colorblind daughter? Explain.

Colorblind daughter = $X^h X^h$
 So dad must be $X^h Y$ + mom can be $X^H X^h$ or $X^h X^h$

If number 13 marries a normal man, what is the probability that their sons will be colorblind?

