

Pedigree Worksheet

A family tree of sorts is called a **pedigree**. The symbols used for a pedigree are:

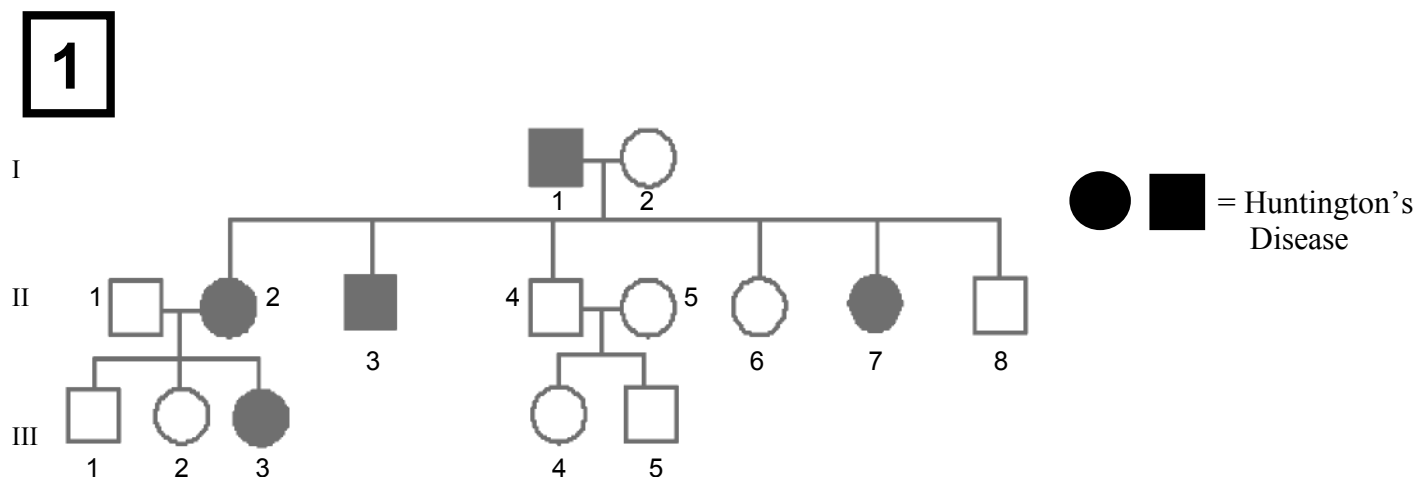
○ female, unaffected

● female, affected

□ male, unaffected

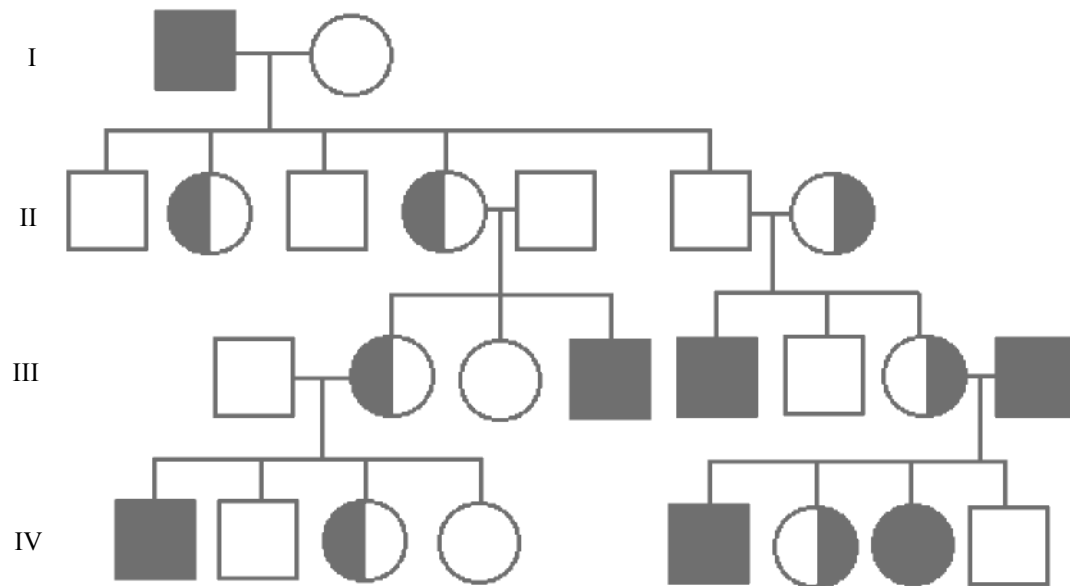
■ male, affected

Siblings are placed in birth order from left to right and are labeled with Arabic numerals. Each generation is labeled with a Roman numeral. Therefore, the male exhibiting the trait in the pedigree below in the bottom, center would be identified as III-4.



- Which members of the family above are affected by Huntington's Disease?
- There are no carriers for Huntington's Disease- you either have it or you don't.
With this in mind, is Huntington's disease caused by a dominant or recessive trait?
- How many children did individuals I-1 and I-2 have?
- How many girls did II-1 and II-2 have?
- How are individuals III-2 and II-4 related?

2



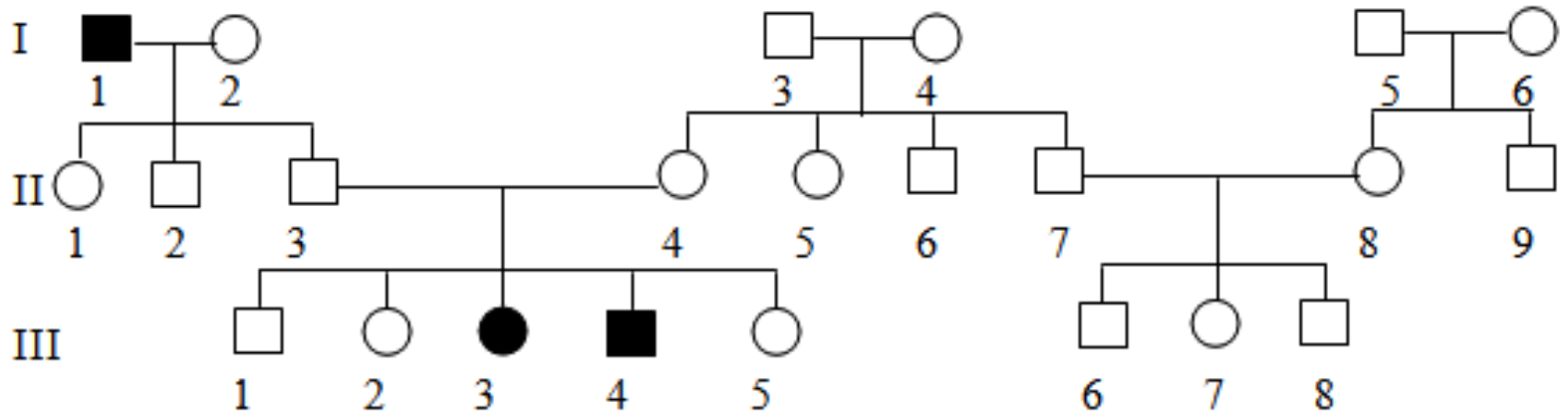
12. The pedigree above shows the passing on of colorblindness. What sex is MOST likely to be carriers of colorblindness?

13. Why does individual IV-7 (a female) have colorblindness?

14. Why do all the daughters in generation II carry the colorblind gene?

15. List 2 IV generation colorblind males.

3



16. Is this trait dominant or recessive? Explain your answer.

17. What gave you the essential information to decide that II-3 and II-4 were heterozygous?

18. Brown eyes are a dominant eye-color allele and blue eyes are recessive. A brown-eyed woman whose father had blue eyes and whose mother had brown eyes marries a brown-eyed man whose parents are also brown-eyed. They have a son who is blue-eyed.

Draw a pedigree (info above) showing all four grandparents, the two parents, and the son. Indicate each individual's possible genotypes.