Name _____ Date _____ Period _____

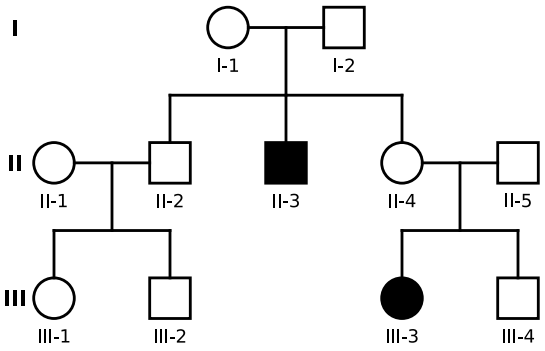
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Pedigrees

Biology

Show your work in the blank space. Write probabilities as fractions. Assume each trait is autosomal.

1. The pedigree shows a trait. Filled symbols are people who have the trait.



(a) Is the trait autosomal dominant or autosomal recessive? Give the clue.

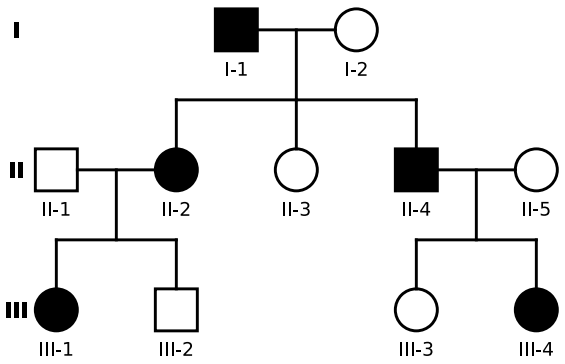
(b) What are the genotypes of II-4 and II-5? Use A and a.

(c) II-4 and II-5 have another child. What is the probability that the child has the trait?

2. Two parents without a trait can have a child with the trait only if the trait is recessive. Explain why.

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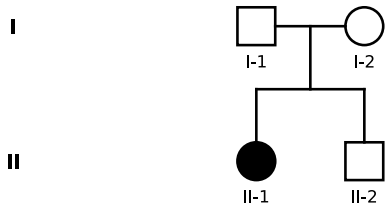
3. A different pedigree shows another trait.



(a) Is the trait autosomal dominant or autosomal recessive? Give the clue.

(b) II-4 (Aa) has a child with a partner who does not have the trait. What is the probability that the child has the trait?

4. In another family, a recessive trait appears in child II-1. Both parents, I-1 and I-2, do not have it.



(a) What are the genotypes of I-1 and I-2?

(b) What is the probability that II-2, who does not have the trait, is a carrier?

(c) II-2 has a child with a partner who has the trait (aa). What is the probability that the child has the trait?

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