

SC.912.L.16.1 – Genetics – Example 3 Answer

One of the parents of a child has phenylketonuria (PKU), which is caused by recessive alleles. The other parent does not have the PKU alleles. What is the chance that the couple will have a child with phenylketonuria?

- A. 0%
- B. 50%
- C. 75%
- D. 100%

Answer

- A. 0%

For a recessive condition to be passed on, the offspring must inherit one allele for that condition from each parent. In this case, the father has no PKU alleles to pass on to the child, so even if the mother passes one on, it will not be expressed.