

CHAPTER 7 REVIEW

True or False

1. Millions of individuals have identical DNA profiles.
2. Mitochondrial DNA is inherited from the father.
3. The two main purposes for analyzing VNTR data from DNA fingerprints are matching tissues and inheritance.
4. The technique used to amplify DNA is polymerase chain reaction (PCR).
5. In gel electrophoresis, the shortest DNA fragments travel greater distances than the longest DNA fragments.

Multiple Choice

6. Half the bands in a baby boy's DNA fingerprint are from his
 - a) uncle
 - b) cousin
 - c) sister
 - d) father
7. DNA restriction enzymes
 - a) are used to repair DNA
 - b) are involved in DNA synthesis
 - c) prevent DNA from being amplified
 - d) cut DNA into fragments of different lengths

Short Answer

8. What are the advantages of STR fingerprinting over VNTR fingerprinting?

9. What causes the difference between different STR alleles?

10. Explain the difference between using DNA profiles to determine paternity and to match a tissue sample with a suspect.

