
Human Genetics: Problem Set VII

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Abstract

This work contains the solutions to the problem set VII of Human Genetics 2015 course at New York University.

Question 1.

Solution. The second step of the identification requires seeing where the sequence actually matches in the genome. Determining the mRNA sequence, therefore, is not adequate.

Question 2.

Solution. (a) Transcription, RNA Polymerase.

(b) Splicing, Enhancer.

(c) Translation, Ribosome, tRNA.

Question 3.

Solution. (a) NvaII yielded 3 separate pieces of plasmids. This implies that the cut happened 2 times.

(b) Smaller fragments migrate more rapidly, and SbfI yields the fragment that migrated the most rapidly. Hence, SbfI enzyme yields the smallest plasmid fragment.