

Genetics: From Gene to Protein

- A.** Use the DNA nucleotide base sequence to the right to answer the questions following:



- (1) What would be the correct complementary mRNA nucleotide base sequence?



- (2) Using the "Genetic Dictionary" in your textbook (Figure 10.11 on page 179), write the correct sequence of amino acids coded for by your mRNA strand completed in question A-1 above.

- B.** Effect of deleting one base pair.

Use the DNA nucleotide base sequence to the right to answer the questions following:



- (1) What would be the correct complementary mRNA nucleotide base sequence?



- (2) Using the "Genetic Dictionary" in your textbook (Figure 10.11 on page 179), write the correct sequence of amino acids coded for by your mRNA strand completed in question B-1 above.

- C.** Effect of replacing every third base pair.

Use the DNA nucleotide base sequence to the right to answer the questions following:



- (1) What would be the correct complementary mRNA nucleotide base sequence?



- (2) Using the "Genetic Dictionary" in your textbook (Figure 10.11 on page 179), write the correct sequence of amino acids coded for by your mRNA strand completed in question C-1 above.

- D.** Amino acid sequence to DNA sequence

Methionine - Serine - Lysine - Arginine - Alanine - Glutamic Acid - Methionine - Leucine - Proline - (Stop)

- (1) What would be a correct mRNA nucleotide base sequence for the amino acid sequence to the right? (Use figure 10.11 on page 179 of your text)

- (2) What would be a correct DNA nucleotide base sequence for the mRNA sequence you wrote in question D-1 above?