Chapter 8: Genetic Engineering
Transcription, Translation, and Genetically Modified Organisms

Lecture Outline

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Learning the Basics

1. List the order of nucleotides on the mRNA that would be transcribed from the following DNA sequence: CGATTACTTA

GCUAAUGAAU

2. Using the genetic code (Table 8.1 on page 200), list the order of amino acids encoded by the following mRNA nucleotides: CAACGCAUUUUG

gln, arg, ile, leu

3. List the subcellular structures that participate in translation.

mRNA, ribosome, amino acids, tRNAs

4. Transcription _____. **A.** synthesizes new daughter DNA molecules from an existing DNA molecule; **B.** makes an RNA copy of a gene that is to be translated; **C.** pairs thymines (T) with adenines (A); **D.** occurs on ribosomes

A. *synthesizes new daughter DNA molecules from an existing DNA molecule*