

Chapter 12 DNA and RNA

Section Review 12-3

Reviewing Key Concepts

Completion *On the lines provided, complete the following sentences.*

1. The three main types of RNA are _____,
_____, and _____.
2. Copying part of a nucleotide sequence of DNA into a complementary sequence in RNA is called _____.
3. An enzyme that binds to DNA during transcription is RNA _____.
4. During the process of _____, the information carried by mRNA is used to produce proteins.
5. Each tRNA molecule contains three unpaired bases, called the _____, which ensure that amino acids are added in the correct sequence.

Reviewing Key Skills

6. **Comparing and Contrasting** How are DNA and RNA similar? How are they different?

7. **Comparing and Contrasting** How are the three types of RNA different?

8. **Hypothesizing** How would it benefit a cell to possess a sequence of DNA that could be transcribed and then edited into several different mRNA molecules?

9. **Applying Concepts** What amino acid sequence would be produced from the mRNA sequence CGCUAUAGC?

10. **Applying Concepts** Suppose the DNA sequence GCTATATCG was changed to GCGATATCG. How would the products of transcription and translation be affected?

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