

# 7.2 Protein Synthesis

## Lesson 7.2: True or False

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

*Write true if the statement is true or false if the statement is false.*

- \_\_\_\_\_ 1. The process in which cells make proteins is called protein expression.
- \_\_\_\_\_ 2. Transcription takes place in three steps: initiation, elongation, and termination.
- \_\_\_\_\_ 3. Splicing removes introns from mRNA.
- \_\_\_\_\_ 4. A codon can be described as a three-letter genetic “word.”
- \_\_\_\_\_ 5. UAG, UGA, AGU, and UAA are the four stop codons
- \_\_\_\_\_ 6. The anticodon is part of each tRNA molecule.
- \_\_\_\_\_ 7. Initiation of transcription occurs when the enzyme, DNA polymerase, binds to the promoter of a gene.
- \_\_\_\_\_ 8. All known living organisms, except some species of primitive bacteria, have the same genetic code.
- \_\_\_\_\_ 9. Elongation is the addition of amino acids to the mRNA strand.
- \_\_\_\_\_ 10. Translation always begins at an AUG codon.
- \_\_\_\_\_ 11. Many proteins are modified in the Golgi apparatus after translation.
- \_\_\_\_\_ 12. During translation, rRNA brings the amino acids into the ribosome.
- \_\_\_\_\_ 13. Termination of transcription occurs at a stop codon.
- \_\_\_\_\_ 14. Transcription uses DNA as a template to make an RNA molecule.
- \_\_\_\_\_ 15. Translation takes place in a ribosome.

## Lesson 7.2: Vocabulary I

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

*Match the vocabulary word with the proper definition.*

### Definitions

- \_\_\_\_\_ 1. the process in which cells make proteins
- \_\_\_\_\_ 2. removes introns from mRNA
- \_\_\_\_\_ 3. the sequence of A, C, G, T (or U) bases in a polynucleotide chain
- \_\_\_\_\_ 4. complementary to a strand of DNA
- \_\_\_\_\_ 5. contains an anticodon that is complementary to the codon for an amino acid
- \_\_\_\_\_ 6. RNA → Protein
- \_\_\_\_\_ 7. DNA → RNA
- \_\_\_\_\_ 8. a group of three nitrogen bases
- \_\_\_\_\_ 9. regions of mRNA that code for proteins
- \_\_\_\_\_ 10. regions of mRNA that do not code for proteins
- \_\_\_\_\_ 11. the way the groups of three bases are divided into codons
- \_\_\_\_\_ 12. a region of a gene where RNA polymerase binds

### Terms

- a. codon
- b. exons
- c. genetic code
- d. introns
- e. mRNA
- f. promoter
- g. protein synthesis
- h. reading frame
- i. splicing
- j. tRNA
- k. transcription
- l. translation