Demonstrate understanding of gene expression

Protein Synthesis Overview

Cut the boxes out and place them into the correct order to show how protein synthesis occurs.

In the cytoplasm, protein synthesis is initiated by the AUG codon on mRNA. The AUG codon signals both the attachment of the ribosome with mRNA and also the tRNA with the anticodons (UAC).	A
The ribosome moves along the mRNA one codon. The first tRNA is released without its amino acid.	B
When the ribosome reaches a termination codon the ribosome leaves the mRNA and protein synthesis is complete.	C
During the first step in protein synthesis, the DNA / gene is transcripted into mRNA in the nucleus. The DNA unzips and free nucleotides come in and produce the mRNA strand using the complementary base pairing rule: the enzyme that controls this process is RNA polymerase.	D
The ribosome moves along the mRNA one codon. Again the tRNA is released without its amino acid.	E
The next step is for a second tRNA to approach the mRNA and match with the second codon on the mRNA.	F
A peptide bond forms between the amino acids.	G
Another peptide bond forms between the amino acids.	H
The completed amino acid chain is now ready to be folded into a functional protein.	I
This process called translation continues and causes the amino acid chain to grow.	J
The mRNAs migrate from the nucleus into the cytoplasm.	K
The next matching tRNA brings in the next amino acid.	L

Answers

D – K – A – F – G – B – L – H – E – J – C - I

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The mRNAs migrate from the nucleus into the cytoplasm.
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