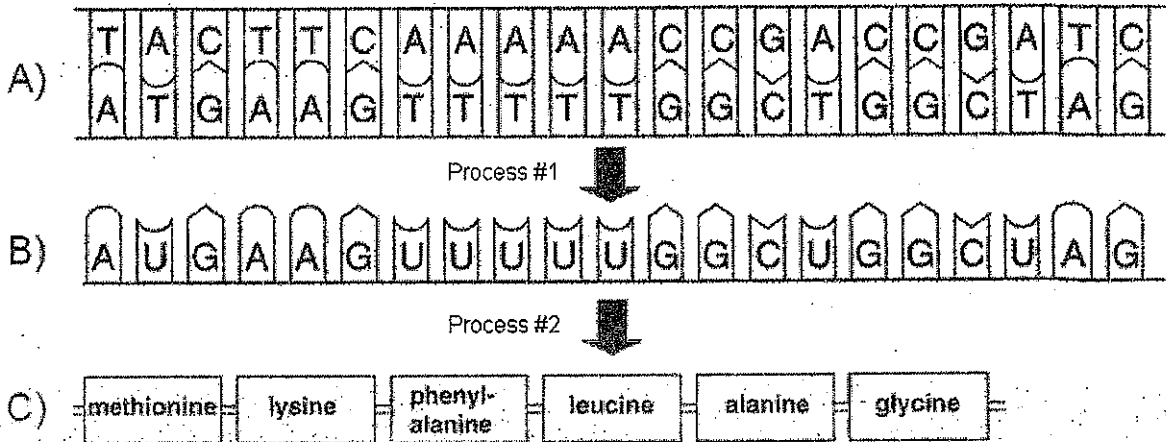


1. Match the following processes with what occurs during the process.

- A. Replication _____ Messenger RNA is made from DNA.
- B. Transcription _____ Ribosomes use triplet codons from mRNA to
- C. Translation _____ combine amino acids into a protein
- _____ Copies of DNA molecules are made

2. Answer the following questions using the diagram.



Name substance A: _____

Name substance B: _____

Name substance C: _____

Process #1 produces Substance B and Process #2 produces Substance C.

Name process #1: _____

Name process #2: _____

3. What is the structure shown at the right?

Name the three parts of this basic unit of DNA.

- a. _____
- b. _____
- c. _____

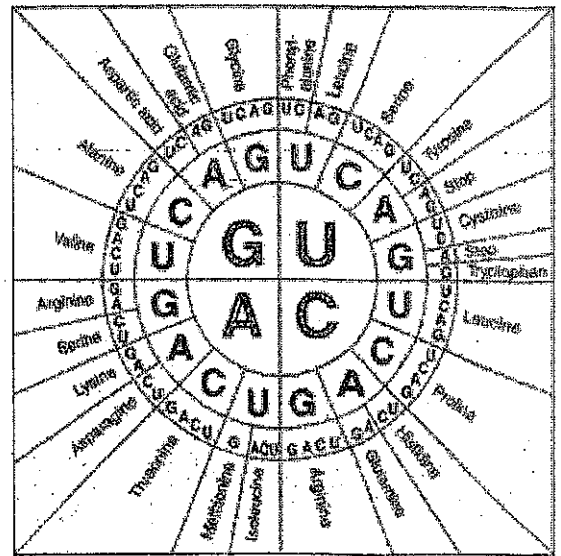


Which part of the DNA structure carries the genetic code? _____

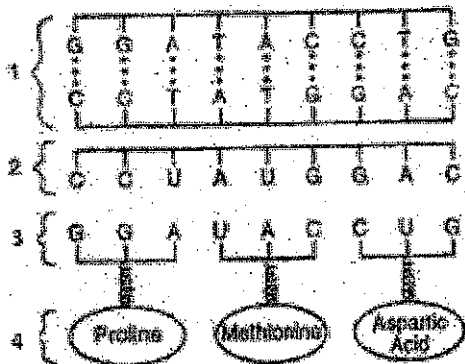
4. Using the "mRNA Codon Amino Acid Translation Chart" at the left, translate the following mRNA strand:
AUG UGC GGG

Next, pretend a mistake has occurred and the mRNA strand reads AUG UGA GGG. Translate the mRNA with the mistake.

How might this mistake interfere with protein synthesis?



5. Refer to the diagram below while answering the following questions.



Choose the correct number for each structure

- _____ Protein (amino acid chain)
- _____ DNA
- _____ mRNA
- _____ tRNA

What two facts about structure 1 helped you to answer correctly?

- _____
- _____

What two facts about structure 2 helped you to answer correctly?

- _____
- _____