**Homework Questions – DNA 🡪 RNA**

1. Describe through words or a visual representation *three* differences between DNA and RNA.
2. Describe through words or visual representation the structural differences between mRNA, rRNA, and tRNA.
3. How is transcription similar to DNA replication?
4. How is it different?
5. What is the role of RNA polymerase in transcription?

Given a sequence of DNA 3ʹ…GATTACAGATTACAGATTACA…5ʹ

1. What is the sequence of mRNA that can be transcribed?
2. How many codons are present in the transcript? \_\_\_\_
3. How many amino acids would be transcribed from the transcript? \_\_\_\_
4. What is the difference between an intron and an exon?
5. To what end of the DNA strand (3’ or 5’) are the nucleotides added during DNA replication?