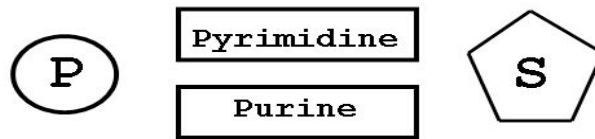


Name _____ Group # _____

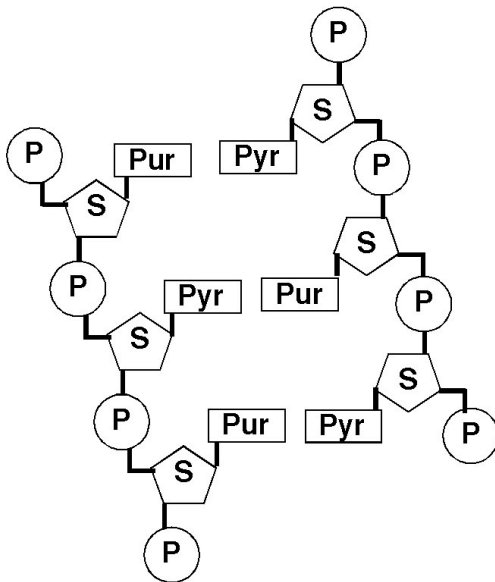
1. (2 points) Fill in the DNA complement of this strand. Indicate both the 5' and 3' ends of the new strand.

5' - A T T C G C A C T G - 3'
 3' - T A A G C G T G A C - 5'

4. (6 points) DNA is made up of two, three base pair, complementary strands of repeating units of ribose, purine or pyrimidine base, and phosphate. Using the following symbols...



...link the units together to form a two, three base pair double stranded DNA. Show six (6) ribose units. Prepare your illustration in the space provided below:



3. (2 points) Define translation and what is its template?

The process by which an mRNA is used directs the synthesis of a protein.

4. (2 points) Define transcription and what is its template?

The process by which DNA is copied into an mRNA strand.

5) (2 points) How much of a 10X solution of Tris buffer will you need to make 100 ml of 1X Tris buffer? Indicate how much water you would need to make the buffer.

(show calculation rationale). 10 ml 10 X Tris, 90 ml ddH₂O

6. (4 points) Name two approaches you will use this week to determine the concentration of a solution of DNA:

**-measuring A₂₆₀ using a spectrophotometer
-using ethidium bromide staining and serial dilution comparing to control fluorescence**

8. (2 points) What are the names of the first four clones that you are going to prepare?

T#LL1.07, T#LL2.07, T#LL3.07, T#LL4.07,