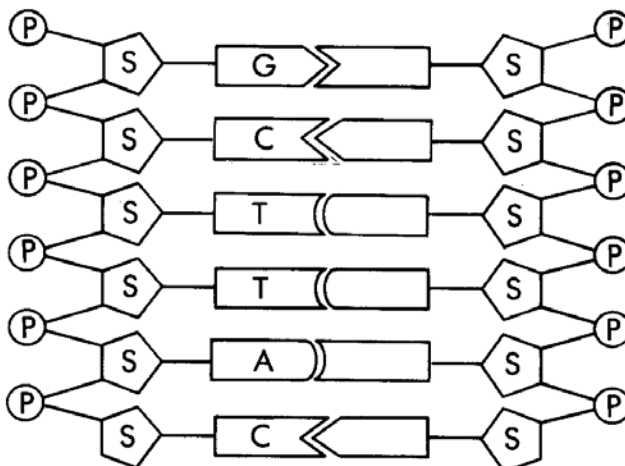


Name: \_\_\_\_\_

1. What are the three parts of a nucleotide?
2. What are the four nitrogen-containing bases?

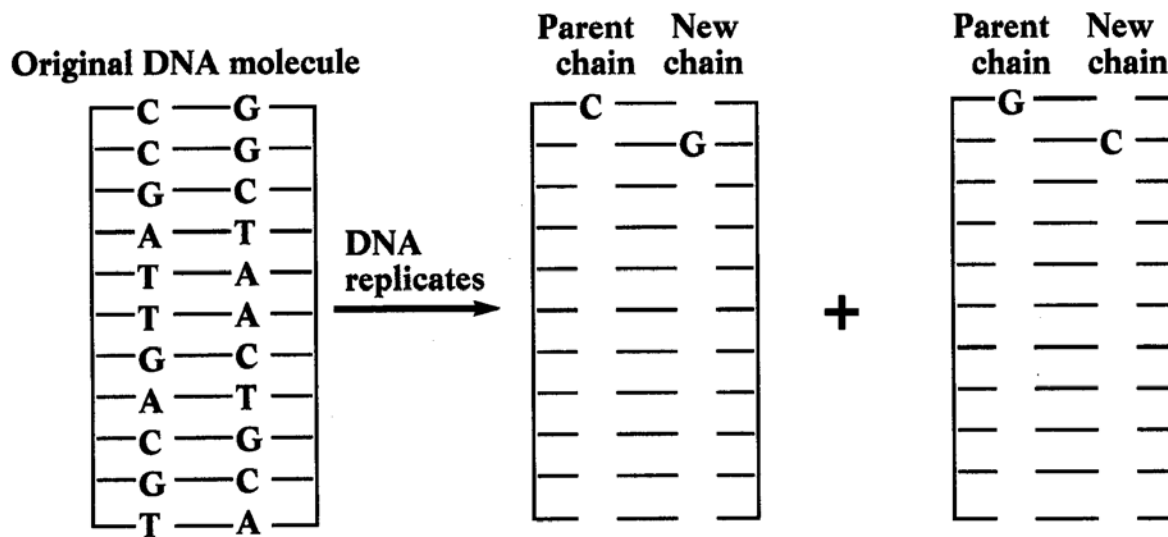
3. Complete the diagram of this part of a DNA molecule by writing the letter of each missing base. Use these choices:

- C = Cytosine
- A = Adenine
- G = Guanine
- T = Thymine



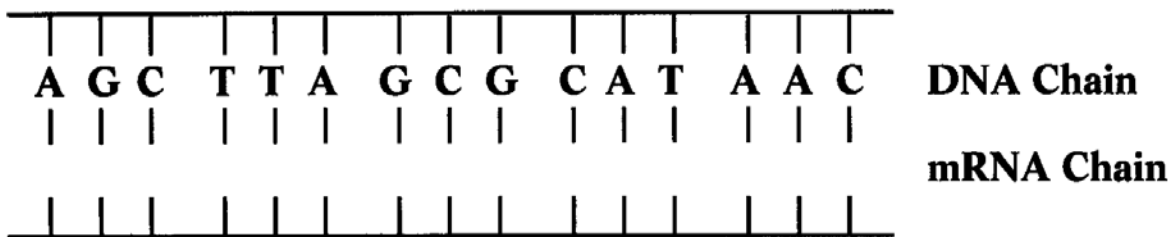
4. What does DNA replication make?

5. Label the diagram by completing the sequence of nitrogen base pairs in the new DNA molecules. Use these letters: A, T, C, G.



Name: \_\_\_\_\_

6. Label the diagram by completing the sequence of nitrogen bases in the mRNA. Use these letters: A, U, C, G, T.



7. Complete the table by checking the correct column for each statement.

Statement	True for DNA	True for RNA
Contains ribose		
Composed of a double chain of nucleotides		
Contains deoxyribose		
Contains uracil		
Contains thymine		
Composed of a single chain of nucleotides		

8. Use the following key to identify the codons for each amino acid. Then, in the table, write the name of the amino acid for each codon. The first one has been completed for you.

	DNA	mRNA Codon	Amino Acid		Amino Acid	Codon
1	AGC	UCG	serine		phenylalanine	UUU, UUC
2	AAA				leucine	UUA, UUG, CUC
3	ACG				serine	UCU, UCC, UCA, UCG
4	GAG				histidine	CAU, CAC
5	GTC				glutamine	CAA, CAG
6	GTA				cysteine	UGU, UGC
7	ATT				stop	UAA

9. What are three types of RNA?

10. A gene is a segment of a DNA molecule that carries a code for making a particular \_\_\_\_\_.