

Name \_\_\_\_\_

Period \_\_\_\_\_

**DNA and Protein Synthesis**

<u>Amino Acid</u>	<u>DNA code</u>	<u>mRNA code</u>	<u>tRNA code</u>
alanine	CGG	GCC	CGG
arginine	TCT	AGA	UCU
histidine	GTA	CAU	GUA
lysine	TTT	AAA	UUU
proline	GGG	CCC	GGG
tyrosine	ATA	UAU	AUA
valine	CAT	GUA	CAU

Given the DNA strand:

G T A A T A G G G C A T C G G T C T T T T

1. \_\_\_\_\_  
Give the bases on this opposite strand of DNA.
2. \_\_\_\_\_  
Show the bases on the mRNA formed from the given DNA strand.
3. Now copy your mRNA from #2 above on the line below. Then show what the anticodons on the tRNAs would be and the amino acids they would be carrying.

<div style="border: 1px solid black; width: 40px; height: 30px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 40px; height: 30px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 40px; height: 30px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 40px; height: 30px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 40px; height: 30px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 40px; height: 30px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 40px; height: 30px; display: inline-block;"></div>	Amino Acids
tRNA	tRNA	tRNA	tRNA	tRNA	tRNA	tRNA	
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">T T T</div> <div style="text-align: center;">T T T</div> <div style="text-align: center;">T T T</div> <div style="text-align: center;">T T T</div> <div style="text-align: center;">T T T</div> <div style="text-align: center;">T T T</div> <div style="text-align: center;">T T T</div> </div>							mRNA

4. Please show the protein formed in #3.
5. Please give the DNA code for the following protein.  
proline-proline-tyrosine-arginine-valine-lysine-histidine

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