

NAME _____

CENTRAL DOGMA REVIEW

REPLICATION

Use the DNA code provided and fill in the complementary DNA strand.

Which nitrogen base CAN'T you use during replication? _____

ATT CG AT GC

TAC GG AT CG

CAG TG ACT T

TRANSCRIPTION

Use the DNA code provided to copy an m-RNA message.

Which nitrogen base CAN'T you use during transcription? _____

ACT GG AT AC

ACG G AT CG T

TGACAGCTA

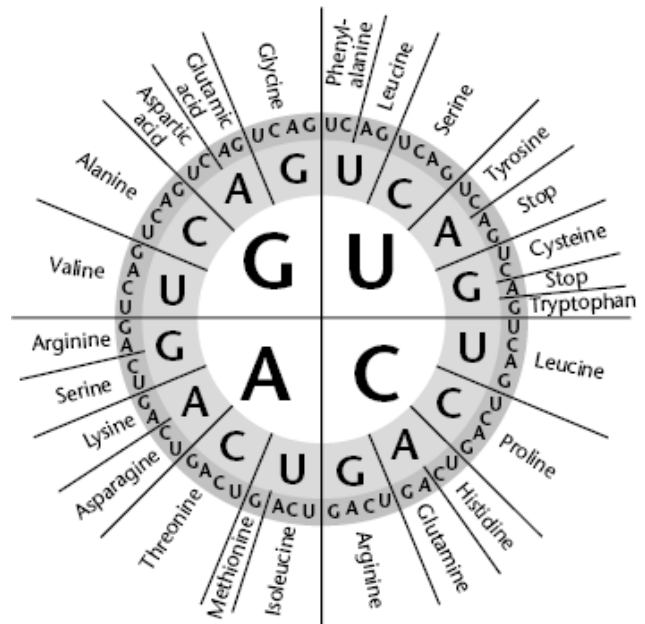
TRANSLATION:

USE the DECODING WHEEL to DETERMINE the AMINO ACID that corresponds to the m-RNA CODE GIVEN

:

Which amino acids have ONLY ONE codon?

<u>mRNA CODE</u>	<u>AMINO ACID</u>
AAA	
GCG	
GAU	
CAA	
CAC	
UUU	



Which two mRNA codes correspond to histidine?

How many different mRNA codes correspond to Threonine?

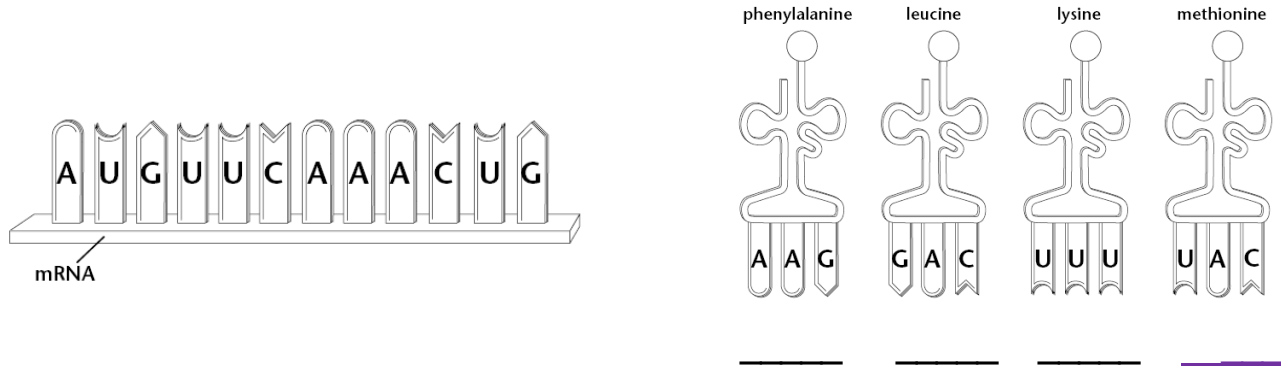
Tell the amino acid sequence for the following mRNA message:

MRNA MESSAGE: AUG CCA UGG CAU

Amino acid sequence:

Look at the m-RNA message below:

PUT A NUMBER under each of the t-RNA/amino acid complexes to show the correct sequence that they would attach as this message is read.



WHAT IS THE AMINO ACID SEQUENCE FOR THE PROTEIN THAT WOULD BE PRODUCED FROM THIS MESSAGE?

FILL IN THE INFORMATION BELOW with the correct sequence

DNA code T T A C G C G C A

DNA code _____

mRNA message _____

mRNA message G G C U U A G C A

DNA code A C A C T C G G C

DNA code _____

mRNA message _____

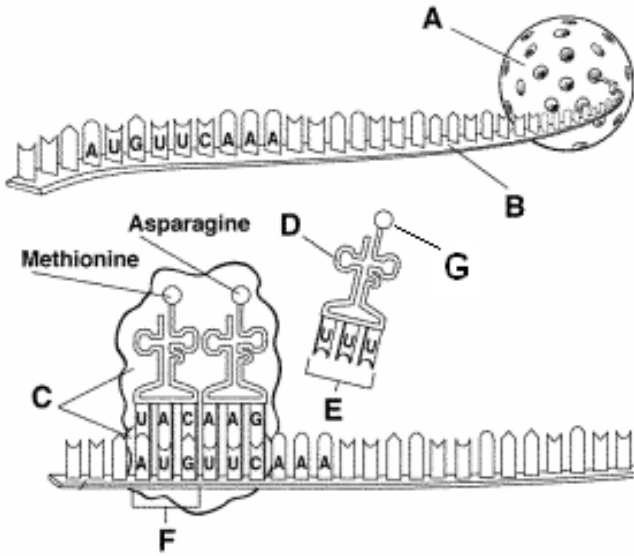
mRNA message C U G G C U A C A

This process of protein synthesis is also called _____

Another name for a protein chain is _____

What if a mutation caused a change in the code so the message read UGG instead of UGC?
How would this affect the protein produced?

What if a mutation caused a change in the code so the message read GGA instead of GGC?
How would this affect the protein produced?



MATCH THE PARTS IN THE DIAGRAM WITH THE CORRECT LABEL.

- _____ RIBOSOME
- _____ NUCLEUS
- _____ MESSENGER RNA
- _____ ANTICODON
- _____ AMINO ACID
- _____ CODON
- _____ TRANSFER RNA

What will happen to D after it drops off its amino acid?

What will happen to B after its message is read?