TNT Recap

NAME_____

1. Below Is the DNA sequence for human insulin:

DNA		TAG		GTT		ACG	
mRNA			GUG				ACU	
tRNA	CCA				ACA			AGG
Amino Acid								

2. Below is the DNA sequence for cow insulin:

DNA	CCG			GTT	ACA		CGA	
mRNA		AUC						UCC
tRNA			CAU			ACG		
Amino Acid								

	SECOND BASE				
	U	C	A	G	
U	UUU Phe UUC UUA Leu UUG	UCU UCC Ser UCA UCG	UAU Tyr UAC UAA Stop UAG Stop	UGU Cys UGC UGA Stop UGG Trp	U C A G
C	CUU CUC Leu CUA CUG	CCU CCC Pro CCA CCG	CAU His CAC CAA Gln CAG	CGU CGC Arg CGA CGG	U C A G
A	AUU AUC Ile AUA AUG Met or start	ACU ACC Thr ACA ACG	AAU Asn AAC AAA Lys AAG	AGU Ser AGC AGA Arg AGG	U C A G
G	GUU GUC Val GUA GUG	GCU GCC Ala GCA GCG	GAU Asp GAC GAA Glu GAG	GGU GGC Gly GGA GGG	U C A G

FIRST BASE / THIRD BASE

3. Below are the steps of transcription and translation. Put them in order from start to finish, numbering 1-8.

_____ tRNA taxi cabs visit the ribosome and match their anticodon "password" with mRNA codons. When they find a match, they drop off the correct amino acid passenger.

_____ The ribosome links all of the amino acid passengers together until a stop signal is reached.

_____ The DNA gene code is read and a complementary mRNA copy of the instructions is made.

_____ The completed mRNA strand breaks away from the DNA and leaves the nucleus. The DNA strand "re-zips" and "re-winds".

_____ The ribosome reads each mRNA codon and calls for the correct amino acid to be delivered.

_____ The tRNA taxi cab, leaves to find another amino acid passenger.

_____ Helicase enzymes unwind and unzip the DNA strands.

_____ The mRNA strand arrives at the ribosome and awaits the arrival of tRNA.

RNA   DNA