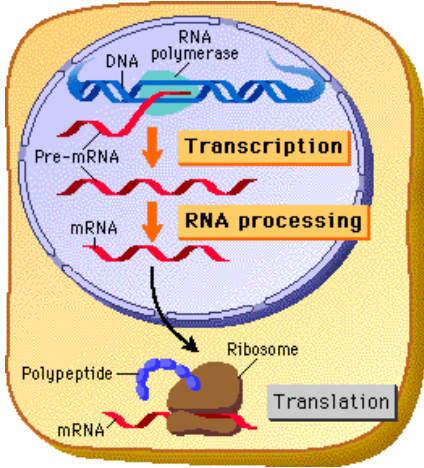


A.P. Biology
CH 5 - Nucleic Acids

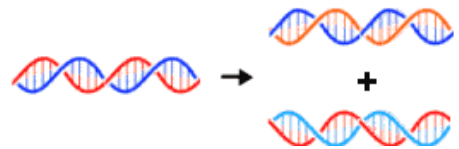
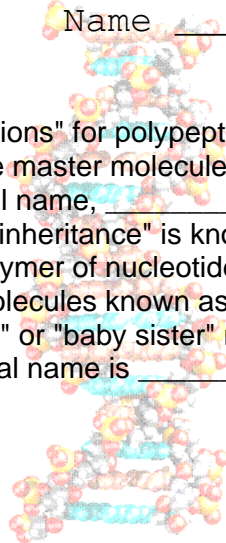
Name _____



The "instructions" for polypeptide assembly are encoded in the master molecule, _____ (also known by its full name, _____).

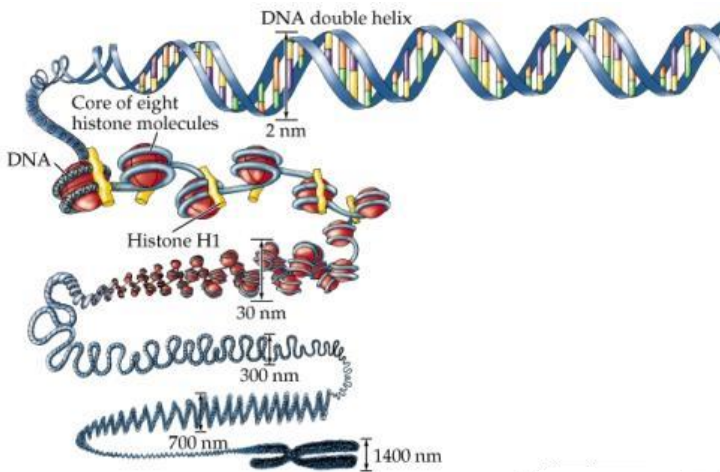
One "unit of inheritance" is known as a _____. DNA is a polymer of nucleotides and belongs to the category of molecules known as _____.

The "second" or "baby sister" nucleic acid is called _____; its real name is _____.



A unique ability shown by nucleic acids is r_____, or the ability to produce copies of itself.

You received your original compliment of DNA from your _____ and your _____. Approximately _____ (ratio) of your DNA comes from each parent. You received _____ (#) chromosomes from your mother and _____ (#) chromosomes from your father. As a zygote, then, you showed a complete compliment of DNA, _____ (#) chromosomes.



How many DNA molecules are there in EACH chromosome? _____

The flow of genetic information goes from _____ -----> _____ -----> _____.

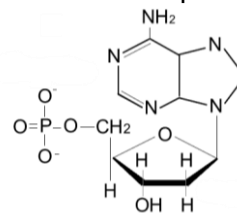
Protein is constructed upon cellular organelles named _____.

In a eukaryotic cell, the DNA is found inside of the _____ and the ribosomes are found in the _____. The instructions telling the ribosomes what types of polypeptides to synthesize are carried from the nucleus to the cytoplasm by the nucleic acid _____.

The principle distinction between a eukaryotic cell and a prokaryotic cell is the presence of a _____.

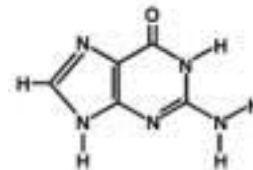
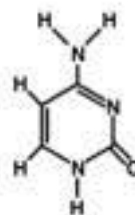
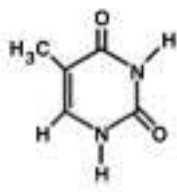
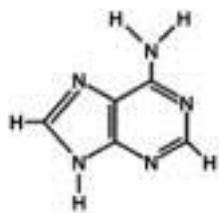
The monomers of nucleic acids are called _____.

Identify the three "parts" of the nucleotide shown to the right:



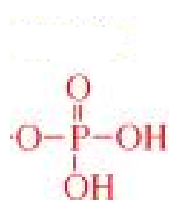
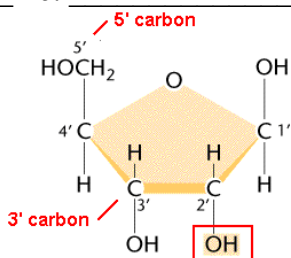
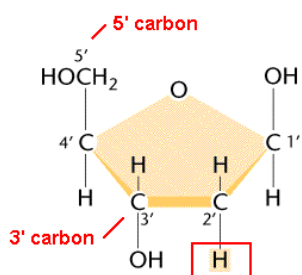
What It Is?

1. _____ 2. _____ 3. _____ 4. _____



Which two are pyrimidines? _____ and _____.
 Which two are purines? _____ and _____.
 A purine always bonds with a _____.
 Thymine is only found in _____.
 Uracil is only found in _____.
 The sugar of DNA is _____.
 The sugar of RNA is _____.

5. _____ 6. _____ 7. _____ 8. _____



Draw a line from the tip of the finger to the *phosphodiester linkage*:



How many nucleotides are there in a gene? _____

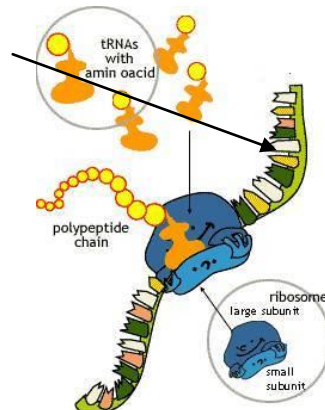
DNA (D) or RNA (R)? - A Matching Extravaganza

1. _____



2. _____ Contains uracil

3. _____



Man Matching

- _____ James Watson A.
- _____ Francis Crick



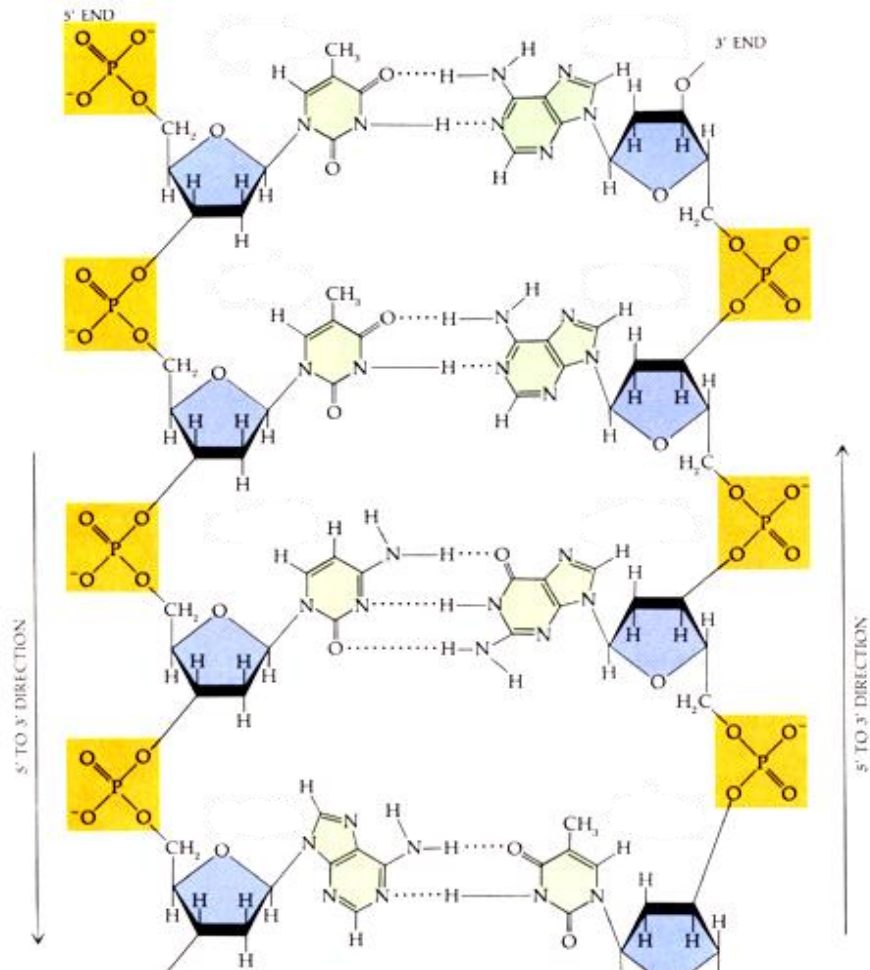
B.



Label The DNA Molecule Drawn Below

Use the following labels:

Adenine
Guanine
Cytosine
Thymine
Double hydrogen bond
Triple hydrogen bond
Purine
Pyrimidine
5' Carbon
3' Carbon
Phosphate
Deoxyribose



Given the nucleotide sequence: **ATTGGCAGATTCGGGAAG**
What is the nucleotide sequence in the *complimentary* strand?

The more closely related two species, the greater the similarity in their _____ and the amino acid sequences in their p_____.