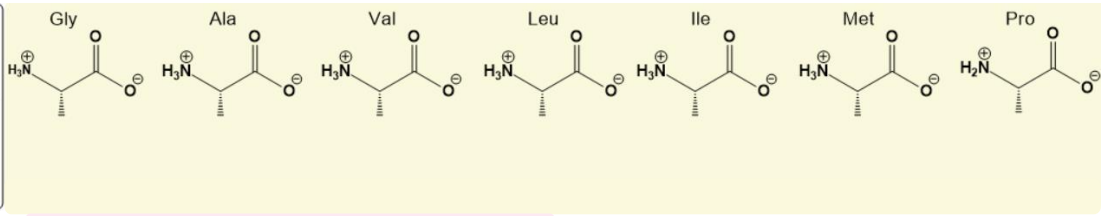
CONCEPT: HOW TO MEMORIZE AMINO ACIDS

●Great ways to memorize amino acids include:

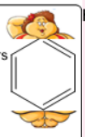
1) Watch Clutch Prep Biochem videos! 2) Print & fill out this page ~3 times!

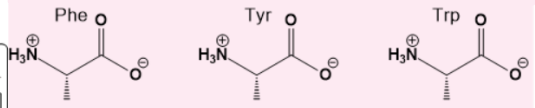
EXAMPLE:

Nonpolar Amino Acids: "GAV LIMP"
Hydrophobic Amino Acids
GAVin **LIMP**ing away

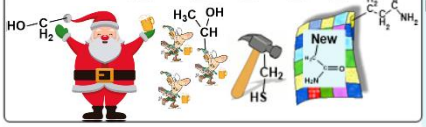


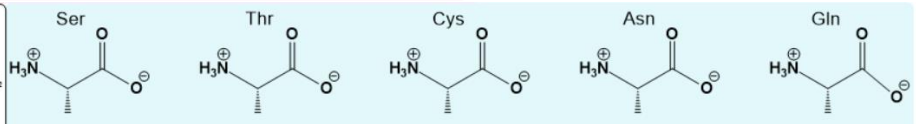
Aromatic Amino Acids:
F Y W: **F**at **Y**oung **W**hippersnappers





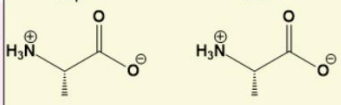
Polar Amino Acids: Think North Pole!
S T C N Q: **S**anta's **T**eam **C**rafts **N**ew **Q**uilts



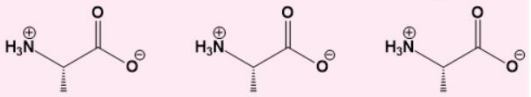


Charged Amino Acids:
D E K R H: **D**ragons **E**at **K**nights **R**iding **H**orses

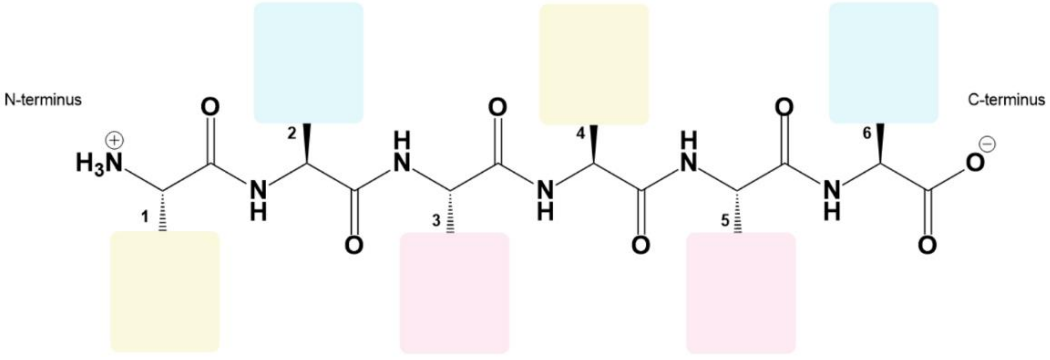
Negatively Charged (Acidic) Amino Acids:



Positively Charged (Basic) Amino Acids:



PRACTICE: Fill-in the missing R-groups for the following peptide from memory: D-I-F-C-R-Q.



PRACTICE: Which of the 20 standard amino acids can be grouped into the following categories?

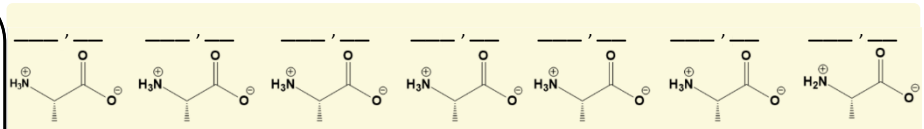
a) Contain cyclic/ring structures. b) Sulfur-containing.

CONCEPT: HOW TO MEMORIZE AMINO ACIDS

PRACTICE: Fill-in the blanks & R-groups for each of the α-amino acids from memory.

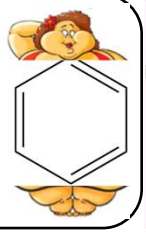
Nonpolar Amino Acids:
Hydrophobic Amino Acids

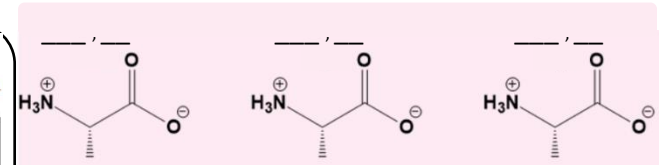
_ _ _ in _ _ _ _ing away



Aromatic Amino Acids:

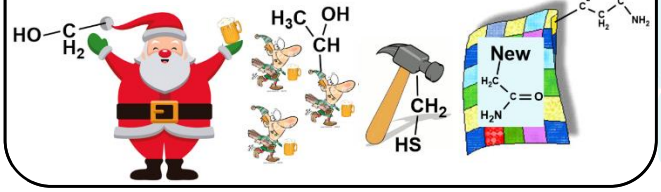
__ __ __: _at _oung __hippersnappers

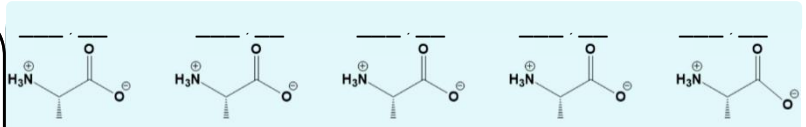




Polar Amino Acids: Think North Pole!

__ __ __ __ __: _anta's _eam _rafts _ew _uilts

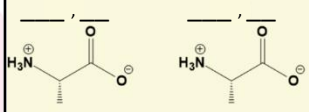




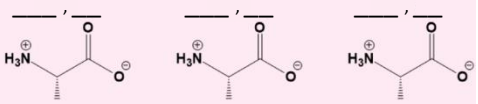
Charged Amino Acids:

__ __ __ __ __: ⊖ _ragons _at ⊕ _nights _iding _orses

Negatively Charged ( ) Amino Acids:



Positively Charged ( ) Amino Acids:



Fill in the blanks below with the essential amino acids.

____, ____, ____, ____, ____, ____, ____, ____, ____

CONCEPT: HOW TO MEMORIZE AMINO ACIDS

PRACTICE: Match the amino acid to the type of R-group it has:

Leu ____	1. Hydroxyl-containing
E ____	2. Acidic
K ____	3. Basic
Ser ____	4. Sulfur-containing
C ____	5. Nonpolar aromatic
W ____	6. Nonpolar aliphatic

PRACTICE: Name the amino acids that contain each of the following in their R-groups:

a) Hydroxyl group: _____

b) 2nd chiral carbon: _____

c) Amide group: _____

d) Basic group: _____

e) Sulfur atom: _____

f) Amino group: _____

g) Acidic group: _____

h) Aromatic ring: _____