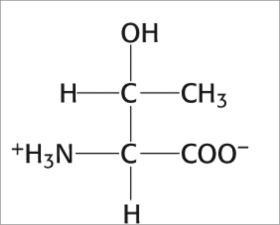
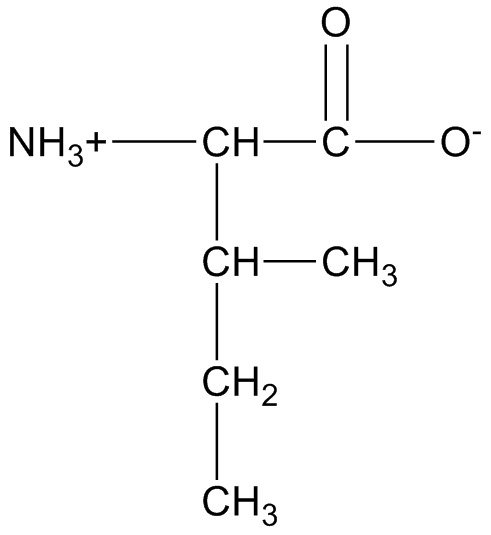
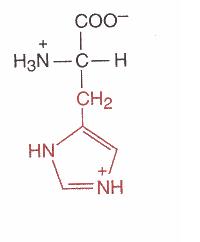
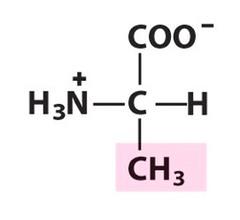
1. What are the groups attached to the same carbon called in an amino acid?
2. What is a zwitteron and how do they behave?
3. Amino acids link together to form \_\_\_\_\_\_\_\_\_\_\_\_\_.
4. Distinguish between the four classes of amino acids.

Non-polar

Polar

Basic

Acidic

1. Identify each of the following as non-polar, polar, basic, or acidic.
2.  b.  c. d. 
3. In nature, the **D / L** isomer is dominant.
4. **T / F** Met-Pro-Arg will have the same function as Pro-Arg-Met.
5. **T / F** The number of peptide bonds is always the same as the number of residues.
6. A peptide bond is a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_ linkage.
7. Write the four categories that peptides can be:
8. Follow the steps below in forming a tetrapeptide of threonine, glutamic acid, lysine, and glycine.
   1. First, draw each amino separately:
   2. Next, combine the four with **peptide bonds** (remember, this is (C=0)-(NH). Number each **residue**.
   3. Draw arrows to the **C-terminus** (carboxyl termini), **N-terminus** (amino termini), and **peptide bonds**.
   4. Write the three letter sequence.
   5. Write the one letter sequence.
   6. How many peptide bonds does this have?
9. Draw and name 2 primary amines, 2 secondary amines, and 2 tertiary amines with the formula C5H13N.