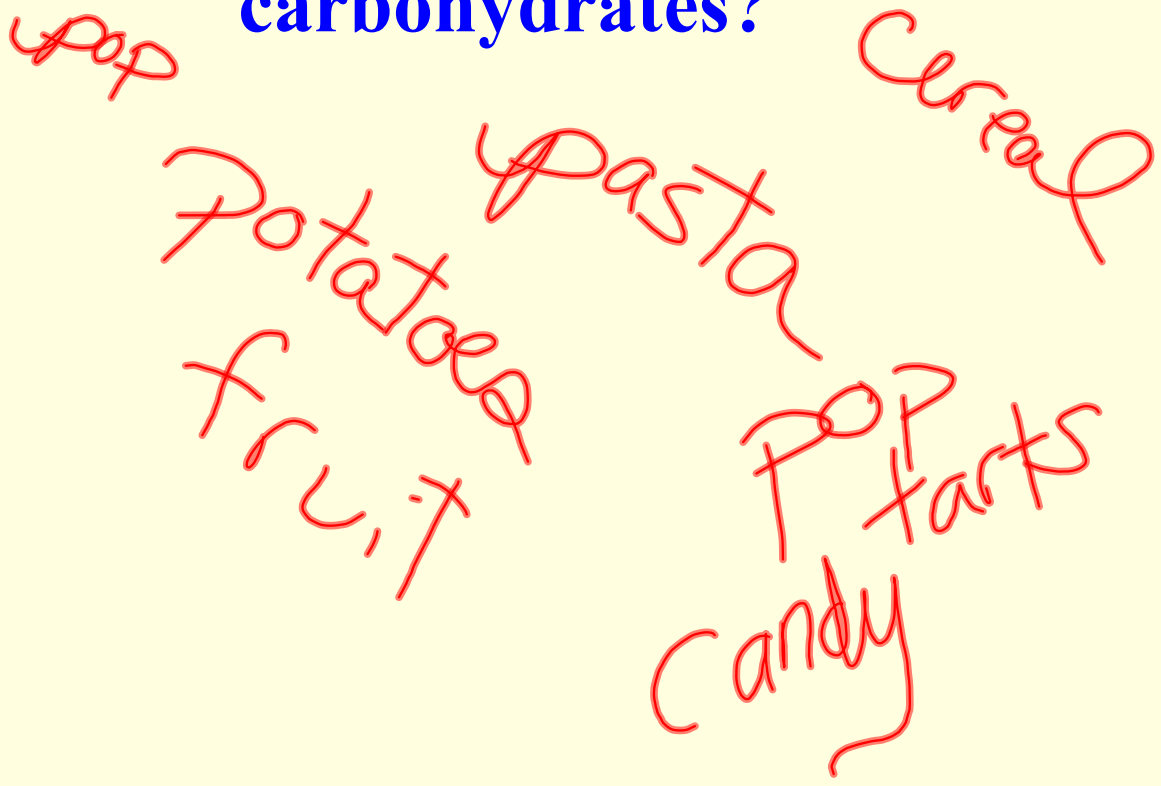
Four principal classes of organic compounds.

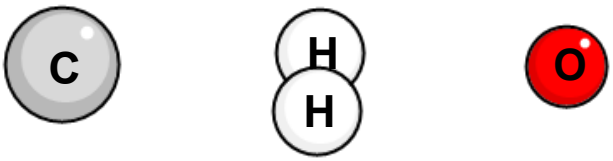
Carbohydrates
Lipids
Proteins
Nucleic acids

Where can you find carbohydrates?



f,v,g

What is this ratio?

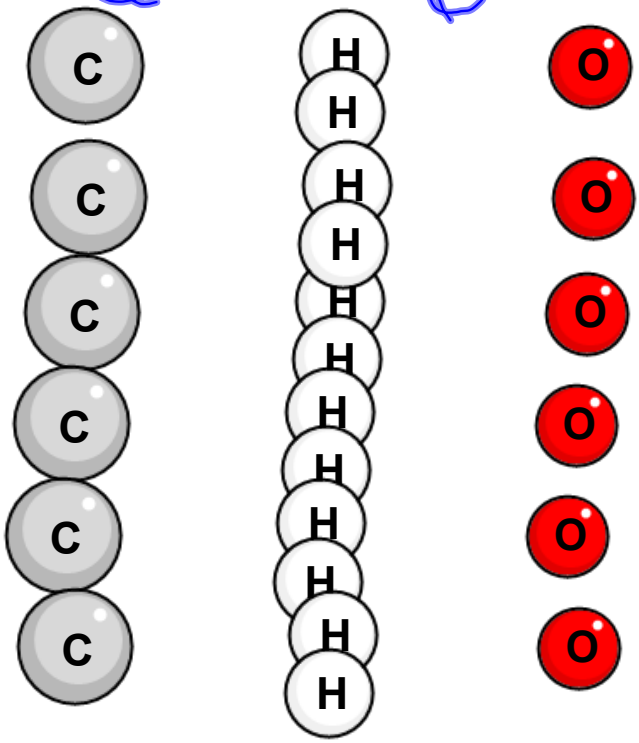


1 : 2 : 1

Single sugars are the building bloack of carbohydrates.

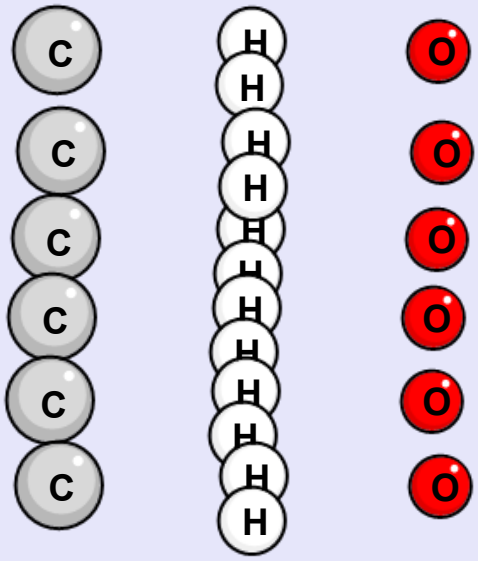
6 : 12 : 6

Examples:
Glucose
Fructose

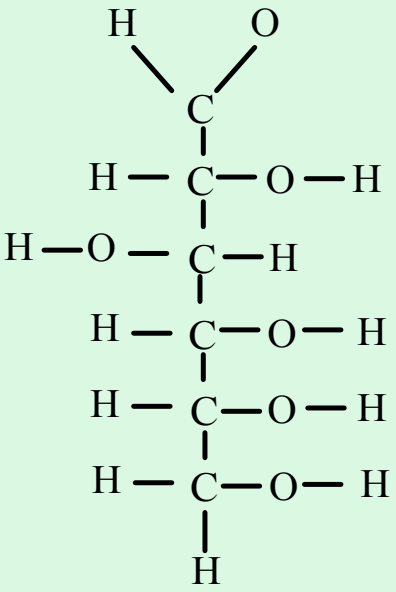


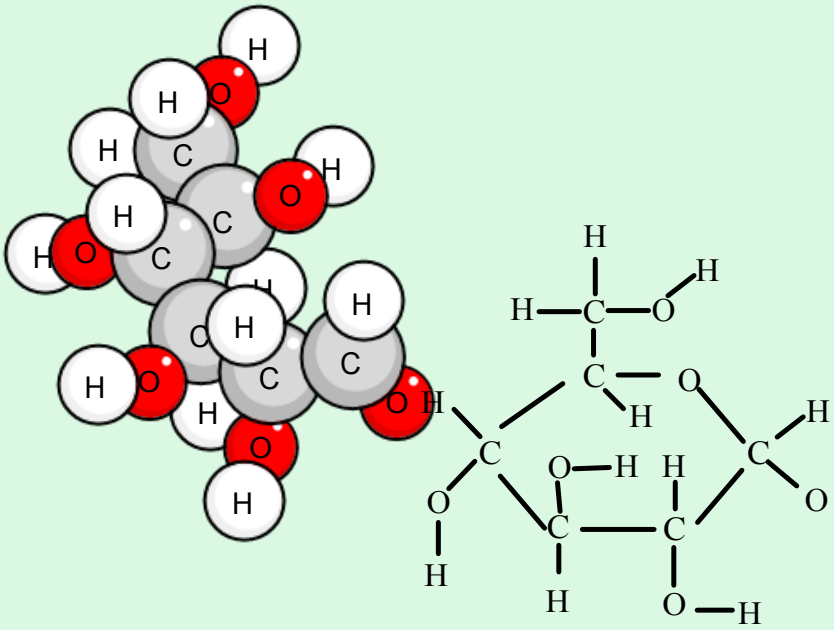
Single sugars are also known as monosaccharides.

1 sugar



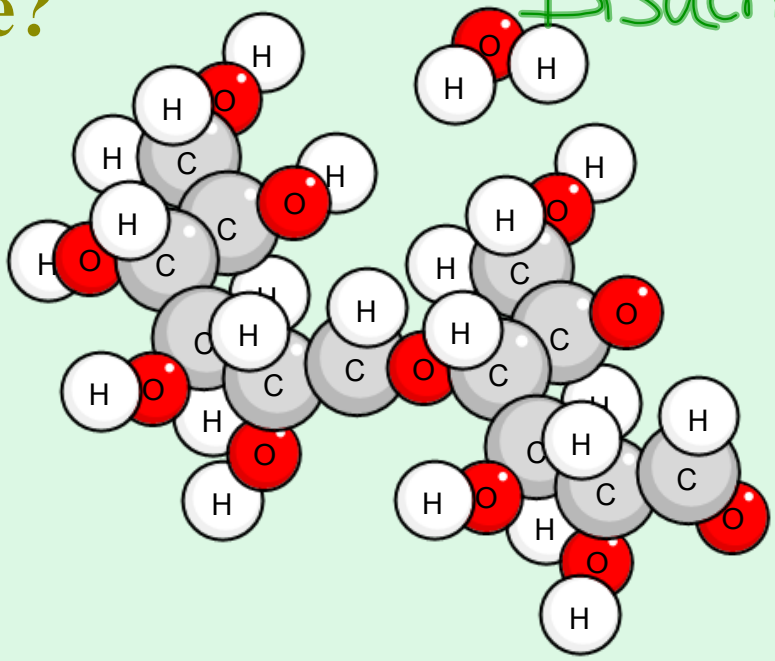
Glucose





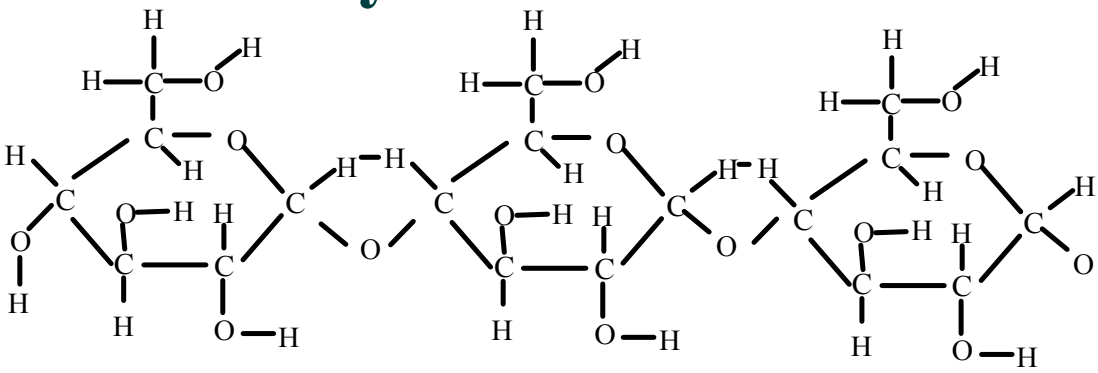
What do you notice about this picture?

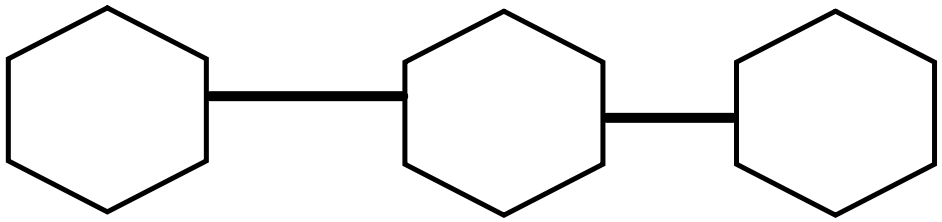
Disaccharide



Maltose

Polysaccharide



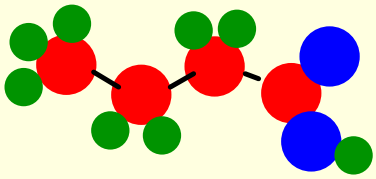


http://www.mansfield.ohio-state.edu/~sabedon/biol1025.htm

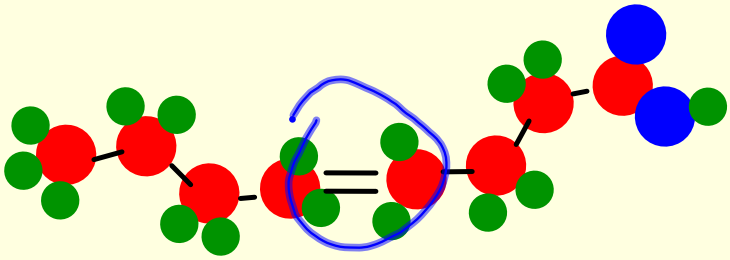
Lipids are non-polar molecules that are not soluable in water.

Examples:
Fats
Phospholipids
Cholesterol
Chlorophyll

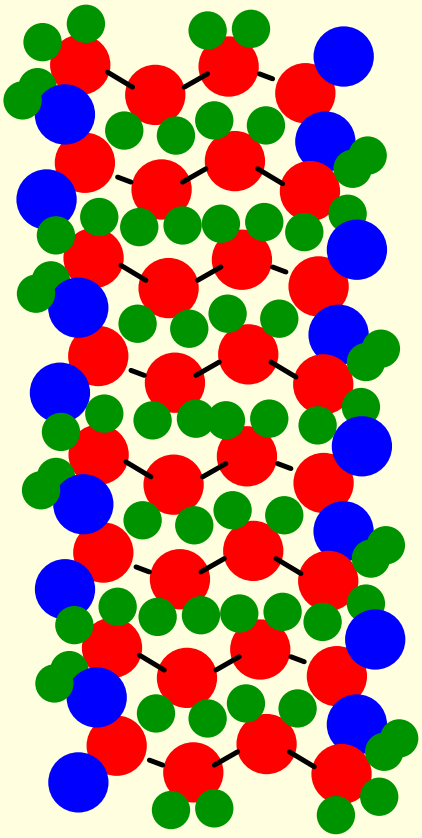
Fats- lipids that store energy



What is the difference?



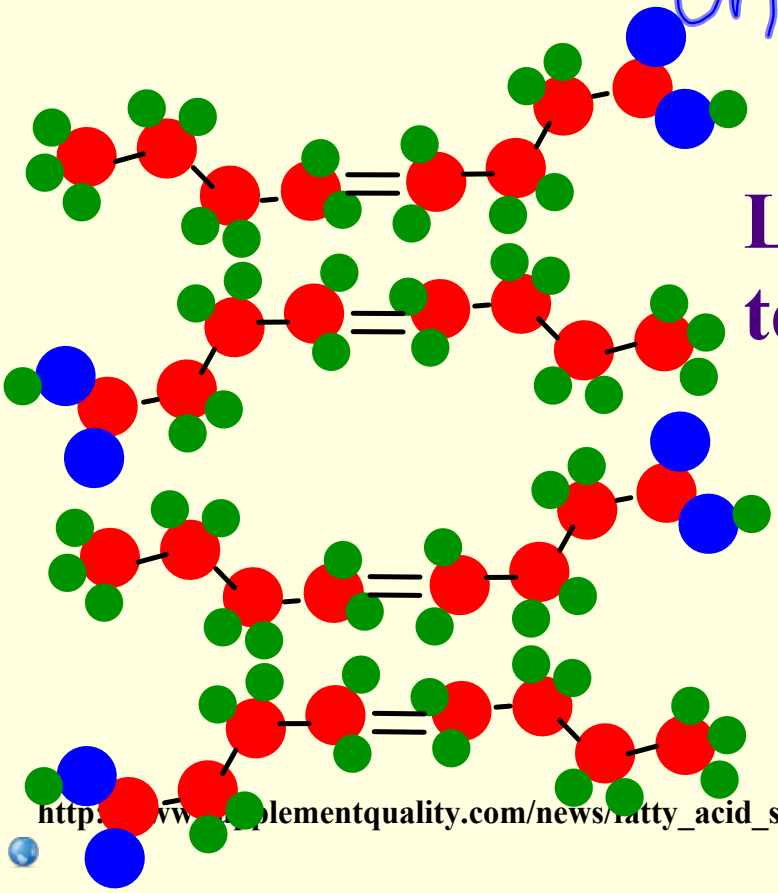
Saturated Fats



Solid at room temp like butter,lard, grease.

Saturated fats

Unsaturated Fats

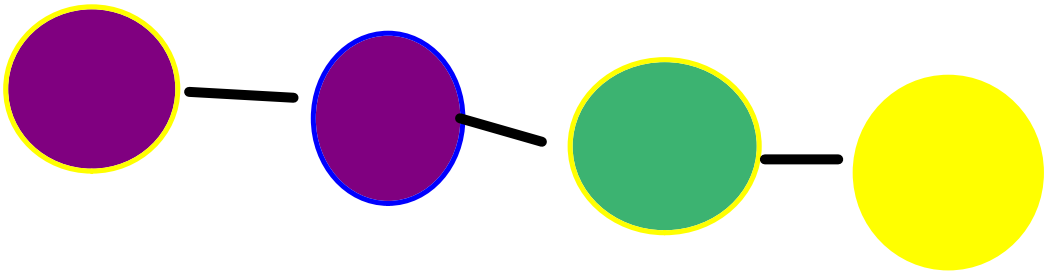


Liquid at room temp like oil.

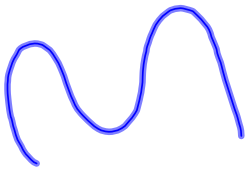
http://www.supplementquality.com/news/fatty_acid_structure.html

Proteins- a chain of amino acids

Amino acids- building blocks of proteins

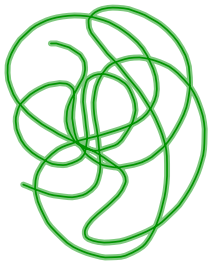


Primary Structure



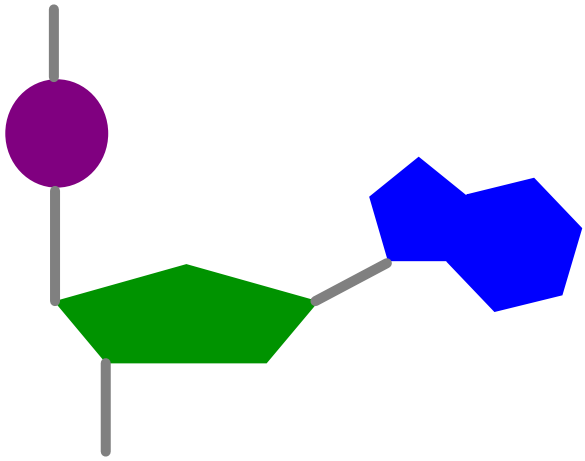
Secondary Structure

Tertiary Structure



Proteins are found in ligaments, tendons, hair, bones, muscles.

Nucleotide-
three parts a
sugar, a base,
and a
phosphate
group



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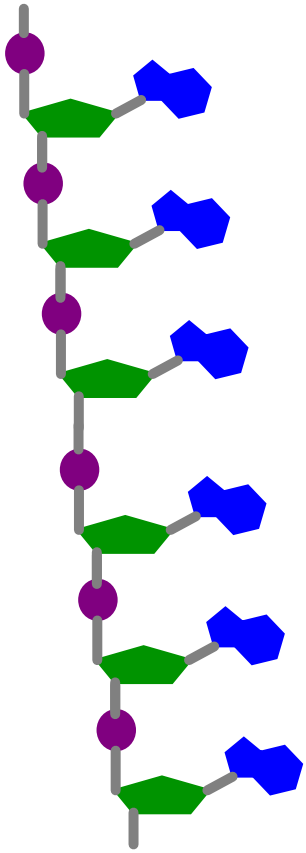
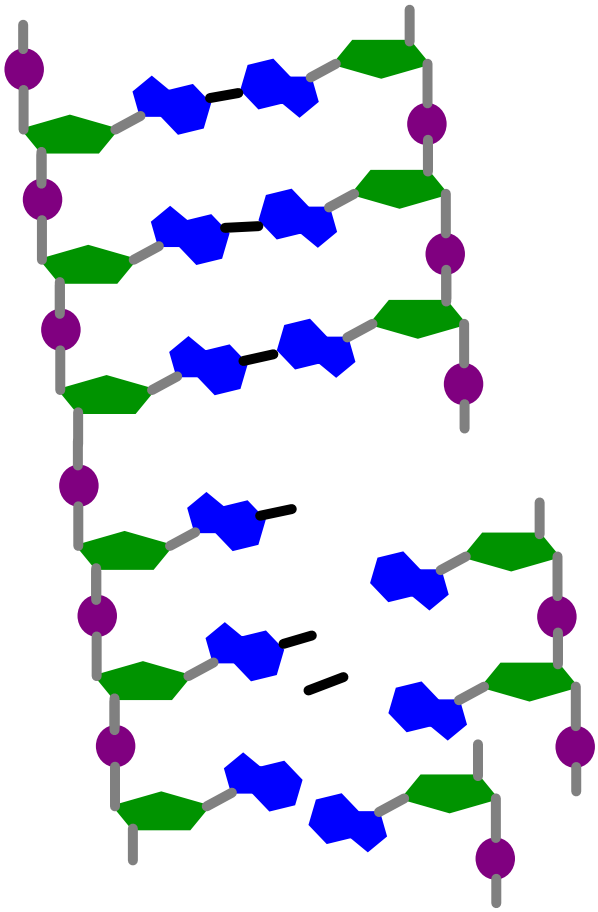
Nucleic acid



DNA

http://biology.clc.uc.edu/courses/bio104/dna.htm



RNA