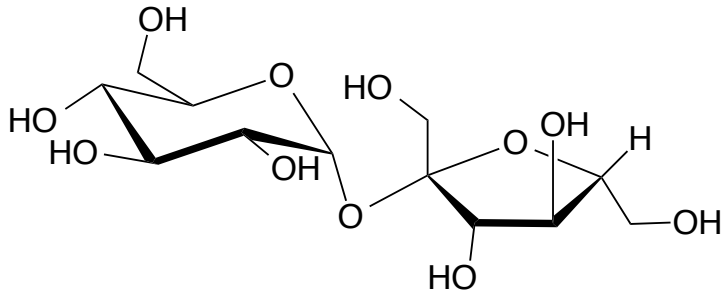
Polysaccharides = polymers of sugars

Disaccharides = 2 sugar linked
Trisaccharides = 3 sugar linked
Tetrasaccharides = 4 sugar linked
.
Oligosaccharides = Polysaccharides

Table Sugar (Sucrose):

Is it a reducing or non-reducing sugar ?

Non-reducing acetal



α–D-Glucopyranosyl-β–D-Fructofuranoside

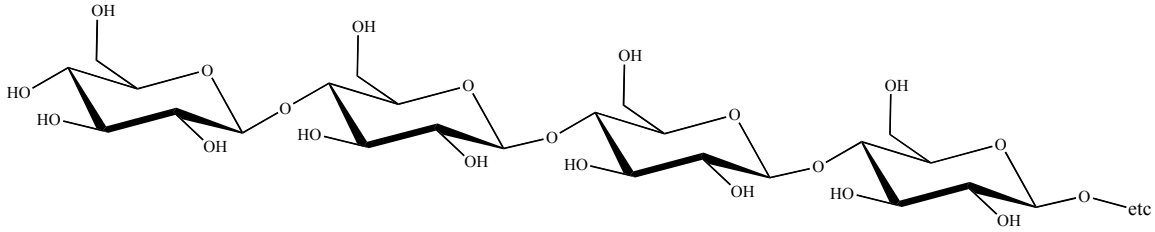
Structure in video incorrect in placement of OH groups on 5 memebered ring

Does this molecule have anomeric carbons ?

Yes - two

Oligosaccharides = Polysaccharides

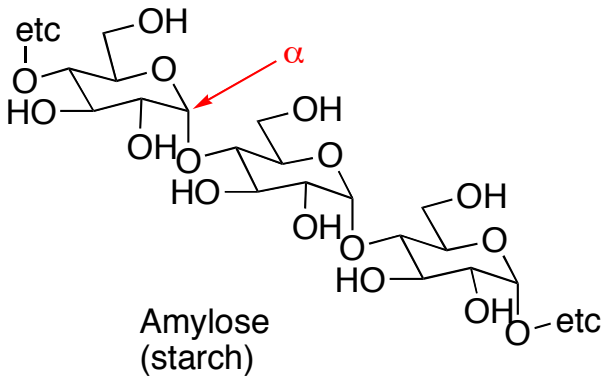
Example: Cellulose; β-(1,4) linked D-glucose polymer



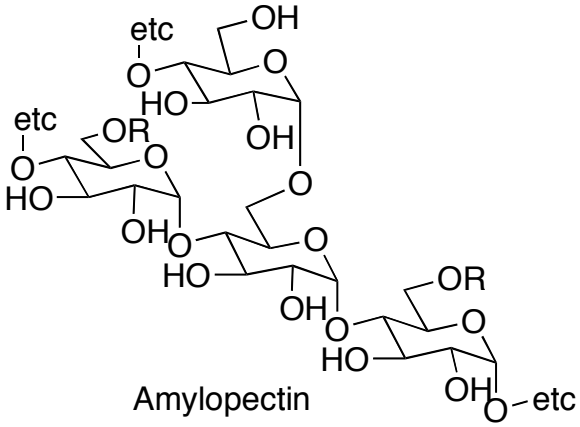
Cellulose is a polymer of simple repeating monosaccharide units (D-glucose).

Many mammals cannot digest cellulose directly. Ruminants such as cows or goats have bacteria in their stomach to break it down to its simpler unit. The bacteria have a cellulose hydrolysis enzyme called cellulase which we do not have. Humans cannot metabolize these β linkages.

Example: Amylose; α-(1,4) linked D-glucose polymer



In contrast, amylose is a polysaccharide with α linkage between each monosaccharide units. Humans can digest amylose. Starch is comprised of approximately 20% amylose.
Example: Amylopectin



Amylopectin is the other component in starch (~ 80%), which is similar to glycogen.