Reducing sugar structure
What is a reducing sugar?

The answer depends on whether or not the open chain form of the sugar contains an aldehyde group....
Xylitol

Mannitol

No aldehyde group
Non-reducing

Glucose

Mannose

Galactose

Arabinose

Maltose

Xylitol

Mannitol

Glucose

Mannose

Galactose

Arabinose

Maltose
But if it undergoes the Lobry de Bruyn-Alberda van Ekenstein transformation

Contains the aldehyde group
Reducing sugar
Sucrose

No aldehyde group
Non-reducing

But if....

But if.....

Contains an aldehyde group
Reducing sugar

And then.....

Sucrose
Does the sugar contain an aldehyde group in its open chain form?

- Yes: Reducing sugar
- No: Non-reducing sugar