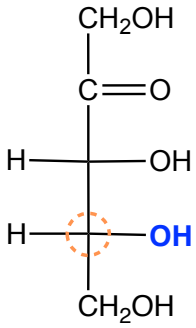
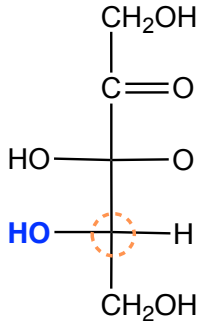
CONCEPT: D VS L ENANTIOMERS

- Monosaccharides can exist as either ____-enantiomer or ____-enantiomer.
- D vs L stereochemistry is determined by the ***penultimate*** C or _____ chiral C.
  - □ **D-enantiomer**: penultimate **-OH** on _____ side.
  - □ **L-enantiomer**: penultimate **-OH** on _____ side.



D-ribulose

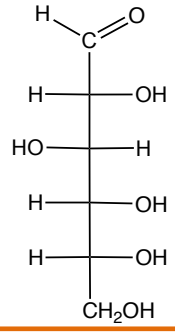


L-ribulose

- Most carbohydrates found in nature are ____-sugars.

EXAMPLE: Identify each monosaccharide as D or L enantiomer.

a)



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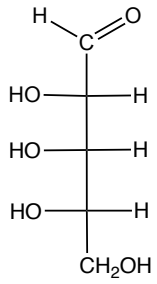
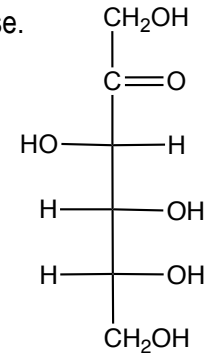


Epimers

- Diastereomers that differ in configuration of only ____ chiral center.

EXAMPLE: Draw a C4 epimer of D-fructose.

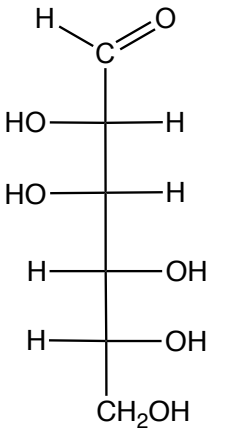


D-fructose

CONCEPT: D VS L ENANTIOMERS

PRACTICE: Label each as D-enantiomer, L-enantiomer, epimer or neither of Talose.

i)



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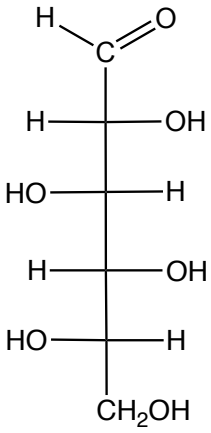

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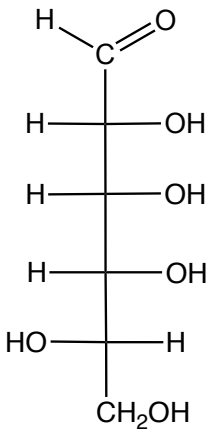

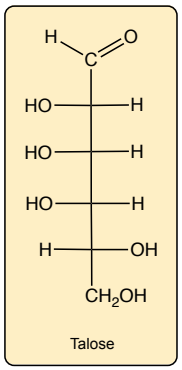

PRACTICE: Identify the given molecule as diastereomer or epimer of D-sorbose.