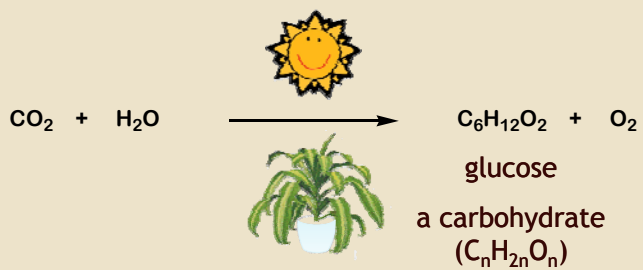
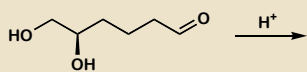
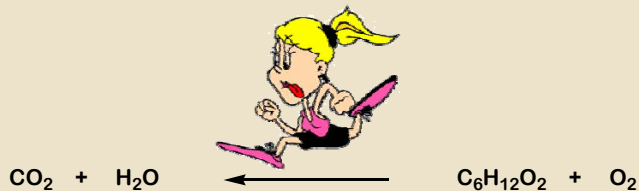


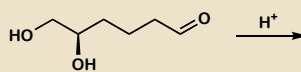
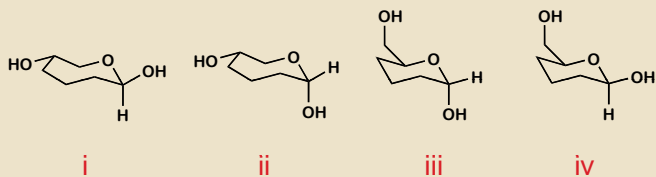
Carbohydrates



Carbohydrates

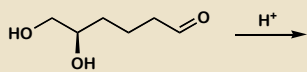
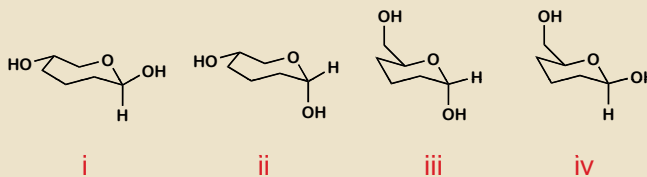


Draw 4 possible products



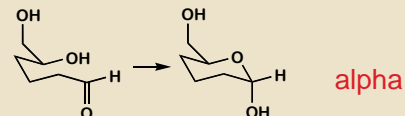
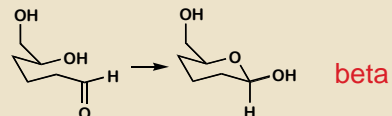
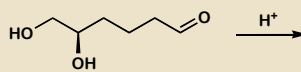
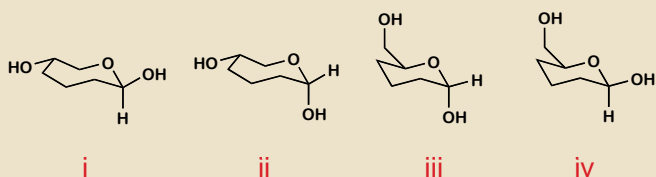
Which 2 are the most favorable?

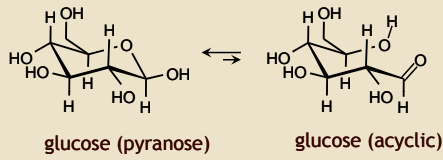
- A i + ii
- B i + iii
- C i + iv
- D ii + iii
- E ii + iv
- F iii + iv



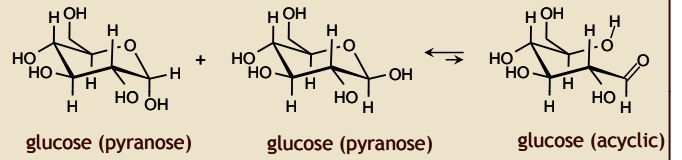
Which 1 is the most favorable?

- A i
- B ii
- C iii
- D iv



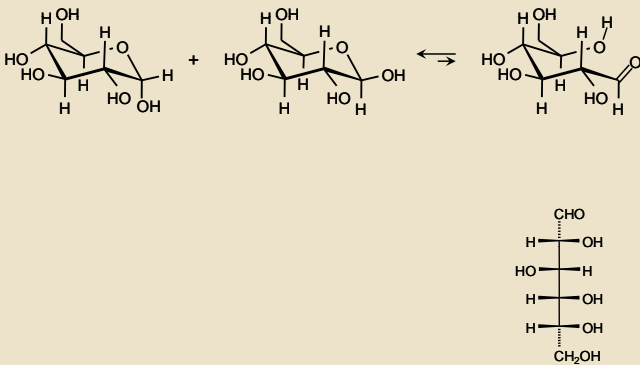


Two cyclic forms of glucose are known. What is the stereoisomeric relationship between these two cyclic structures?

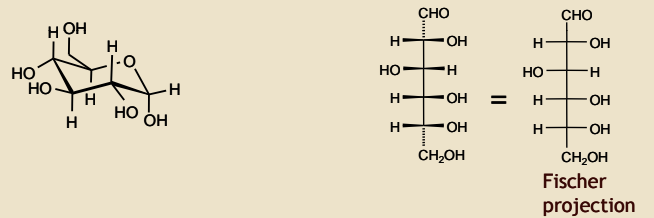


- (A) They are identical.
- (B) They are enantiomers.
- (C) They are diastereoisomers.
- (D) They are not stereoisomers.

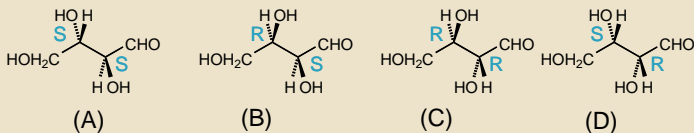
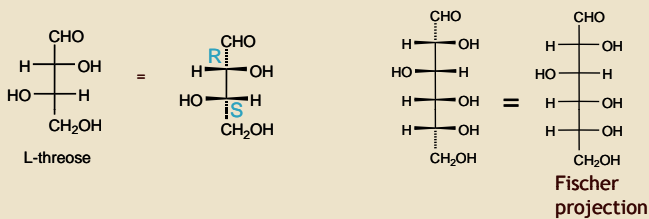
Are there simpler ways to draw glucose with all of its stereochemical information preserved?



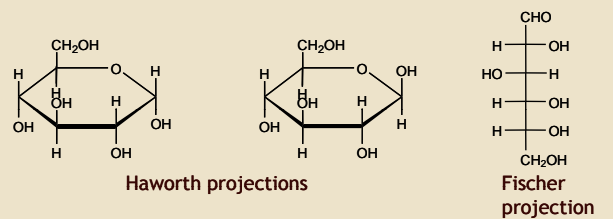
Fischer Projections: What do these lines mean?



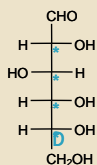
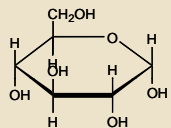
Choose the structure of L-threose from the following Fischer projection.



Are similar structures used for the cyclic isomers?



How many stereoisomers of acyclic glucose are possible?

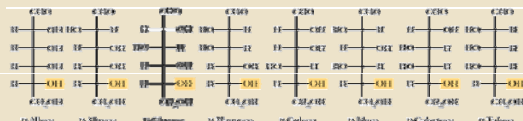
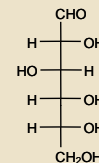


D = R

- A 2
- B 4
- C 8
- D 10
- E 12
- F 16
- G 24
- H 32

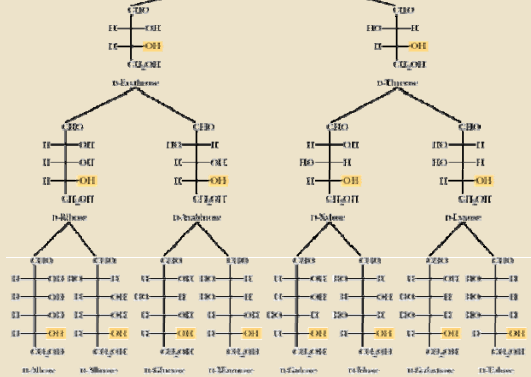
How many hexoses with the D configuration are possible?

- A 2
- B 4
- C 8
- D 10
- E 12
- F 16
- G 24
- H 32



What are the structures of all of the D sugars?

D-glyceraldehyde



D-glyceraldehyde



R-glyceraldehyde

(+)-glyceraldehyde

(d)-glyceraldehyde

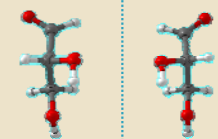


L-glyceraldehyde

S-glyceraldehyde

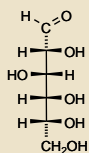
(-)-glyceraldehyde

(l)-glyceraldehyde

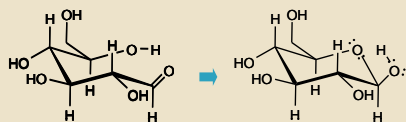


mirror plane

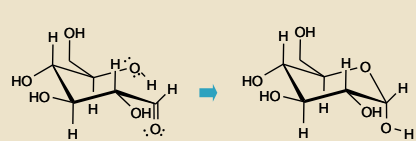
What are the isomers of D-glucose?



D-glucose

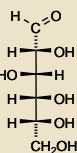


β-D-glucopyranose



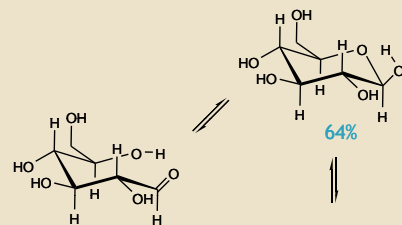
α-D-glucopyranose

What are the isomers of D-glucose?



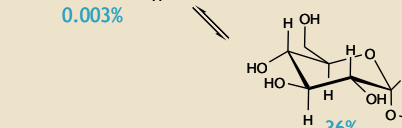
D-glucose

β-D-glucopyranose



0.003%

64%



36%

α-D-glucopyranose