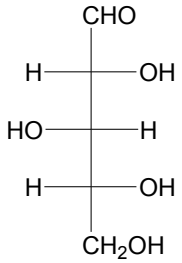
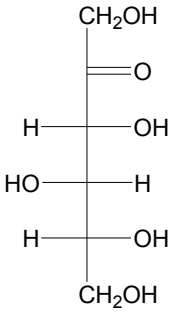
CAPITOLO 13

1. **a)**



b)



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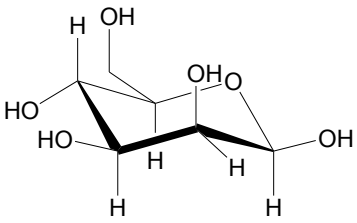
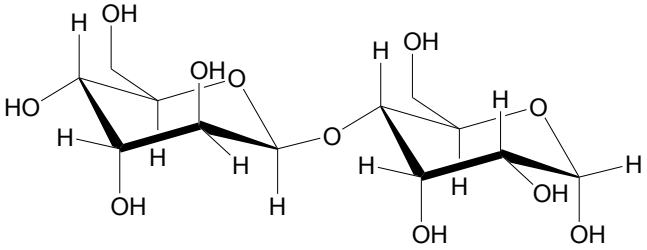


d)



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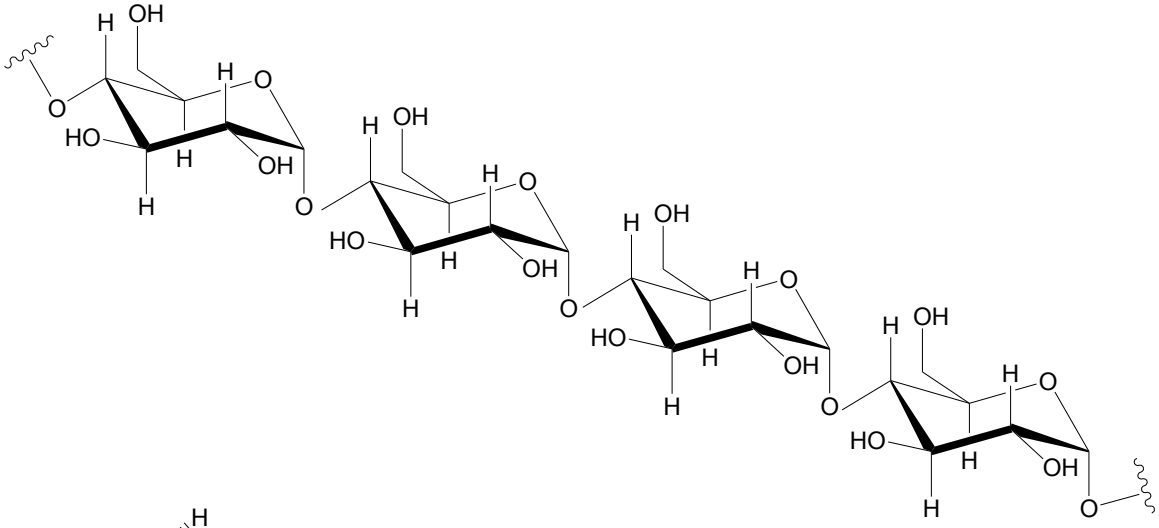

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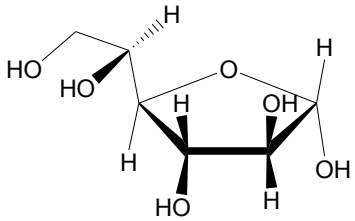

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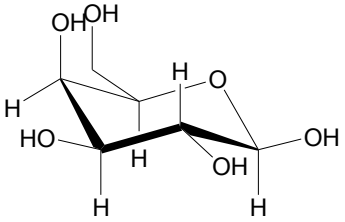

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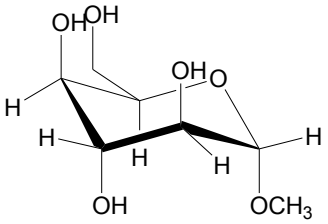
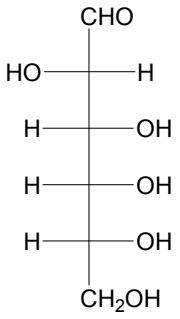
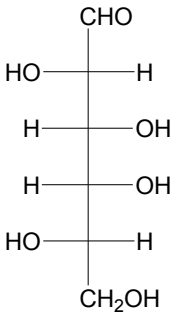


2. **Uno zucchero appartiene alla serie D se nella proiezione di Fischer l'ossidrile del carbonio asimmetrico più lontano dal gruppo aldeidico (o chetonico) è a destra. Uno zucchero appartiene alla serie L se nella proiezione di Fischer l'ossidrile del carbonio asimmetrico più lontano dal gruppo aldeidico (o chetonico) è a sinistra.**

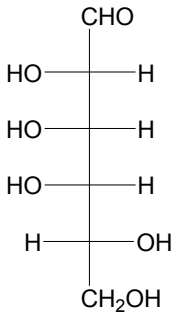


zucchero di serie D



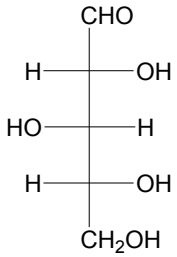
zucchero di serie L

3. **Il D-talosio appartiene alla serie D perché l'ossidrile del carbonio asimmetrico più lontano dal gruppo aldeidico è a destra nella proiezione di Fischer.**

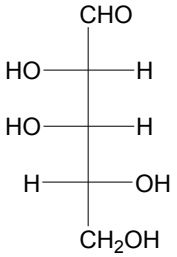


D-talosio

4.



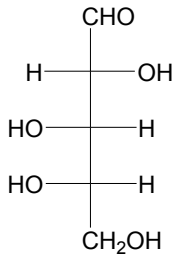
D-xilosio



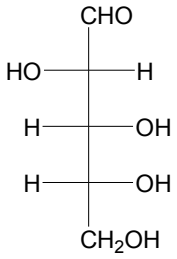
D-lixosio

Il D-xilosio e il D-lixosio sono epimeri al C2

5.



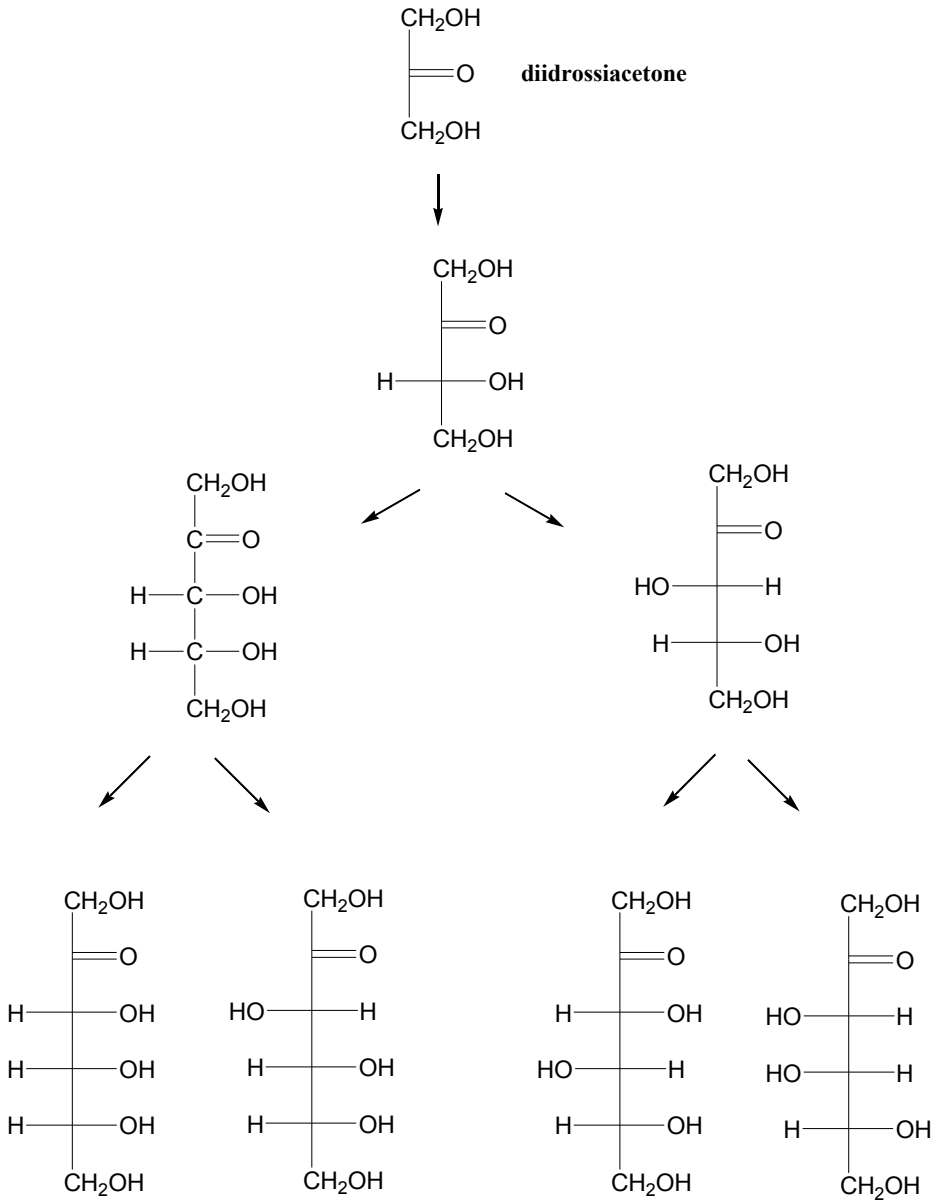
L-arabinosio



D-(-)-arabinosio

L-arabinosio D-(-)-arabinosio sono enantiomeri. L' L-arabinosio è destrogiro.

6.



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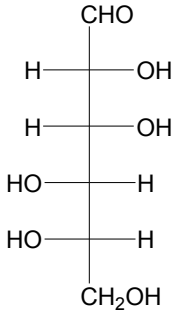
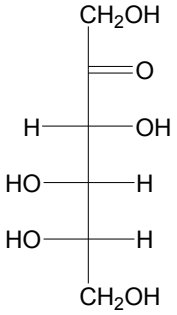
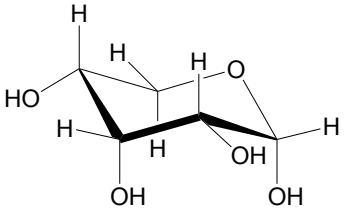


L-mannosio

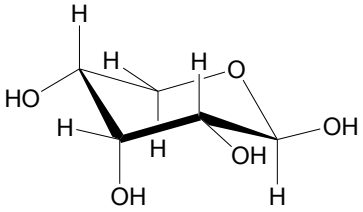


L-fruttosio

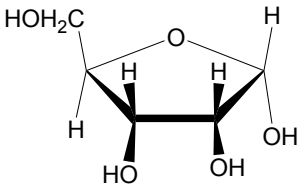
8.



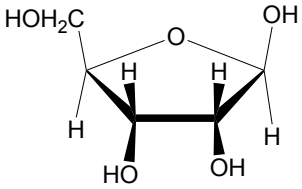
forma α-piranosica



forma β-piranosica



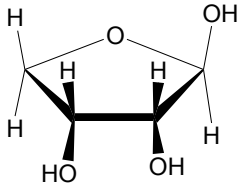
forma α-furanosica



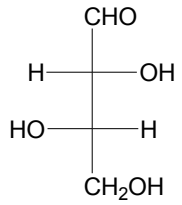
forma β-furanosica

9. β-D-allopiranosio

10. Il D-eritrosio non può esistere in forma piranosica perché non può formare un emiacetale ciclico a sei termini. Può formare, invece, un emiacetale ciclico a cinque termini.



11.

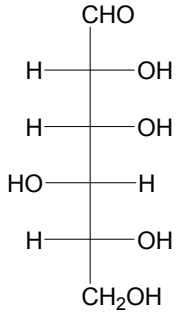


L-treosio

12. **I due anomeri non hanno la stessa solubilità perché sono due diastereomeri con proprietà fisiche diverse.**

13. **E' la forma piranosica dell'anomero beta. E' uno zucchero della serie D.**

14.



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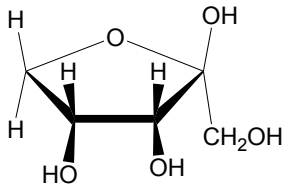

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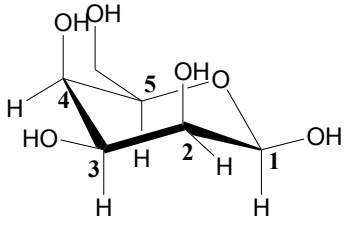


OH sul C_1: equatoriale

OH sul C_2: assiale

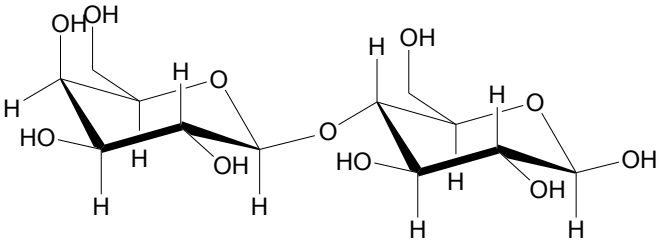
OH sul C_3: equatoriale

OH sul C_4: assiale

CH_2OH sul C_5: equaltoriale

17. **Il D-allosio e l'L-allosio sono enantiomeri. Hanno lo steso punto di fusione, stessa solubilità in acqua, rotazioni ottiche specifiche opposte.**

18.



4-O-(β-D-galattopiranosil)-β-D-glucopiranosio

19.