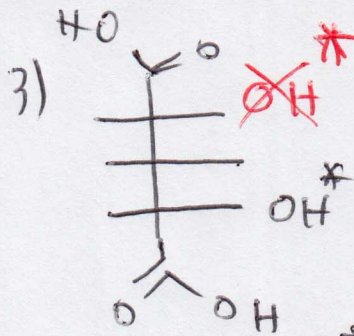
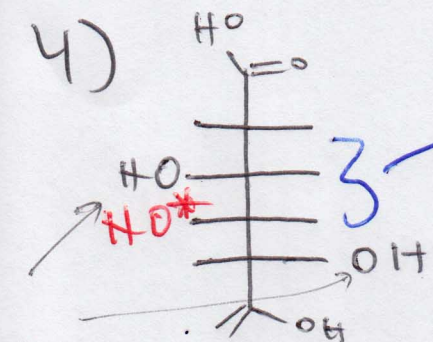
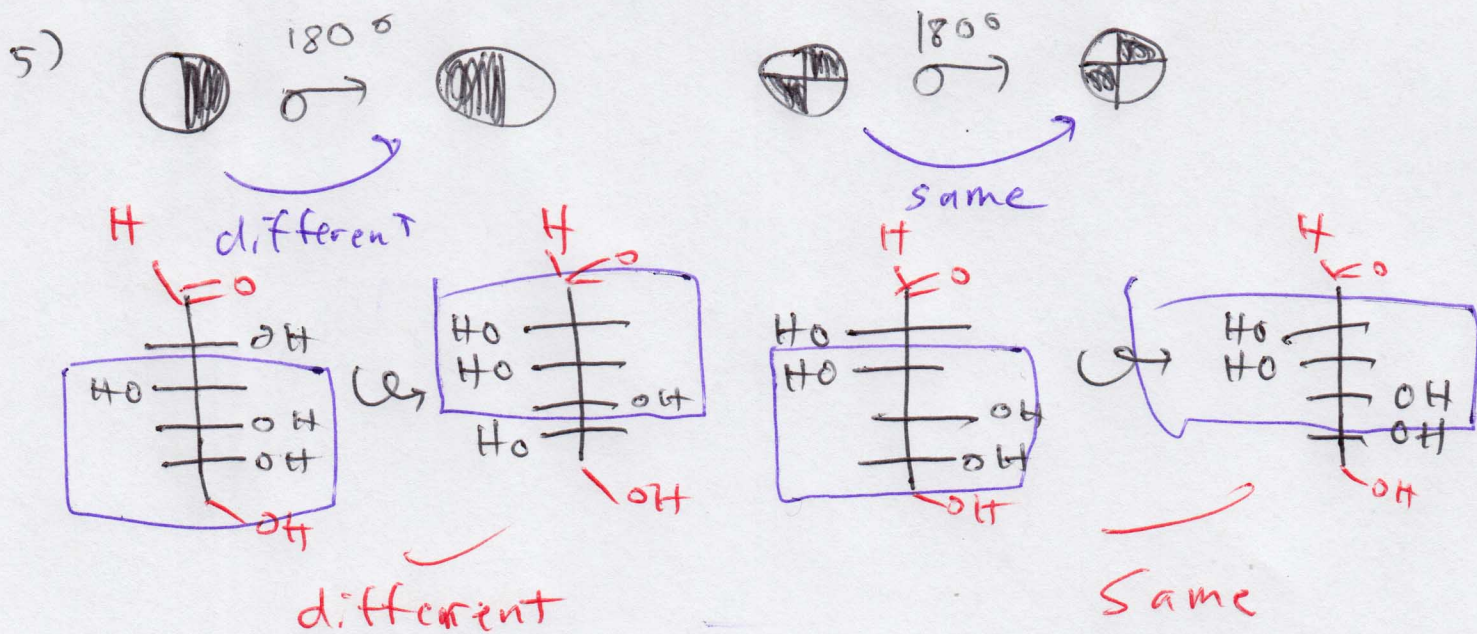


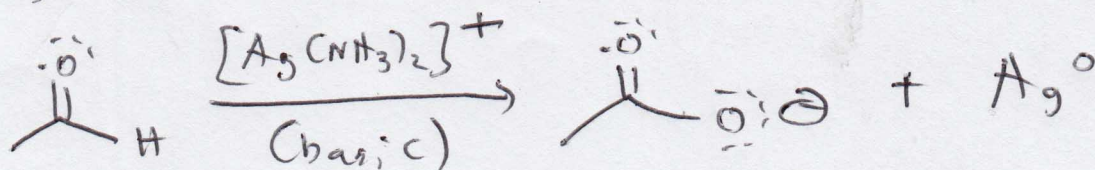
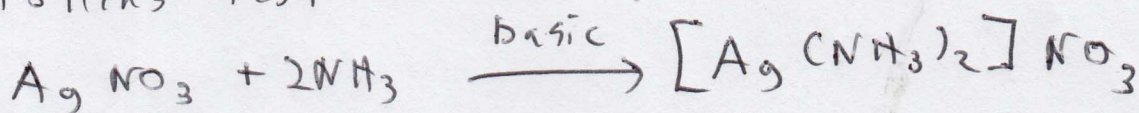
5/22/12

3)  Since the aldaric acid of arabinose is optically active, the acid cannot be meso. Since the configuration of one* stereocenter is presumed at an earlier step of the proof, the configuration of another stereocenter can be automatically determined, since a meso molecule must be avoided.

4)  potentially meso → this* stereocenter cannot be configured as shown, since both glucose + mannose share this configuration and cannot be meso once oxidized. from previous steps

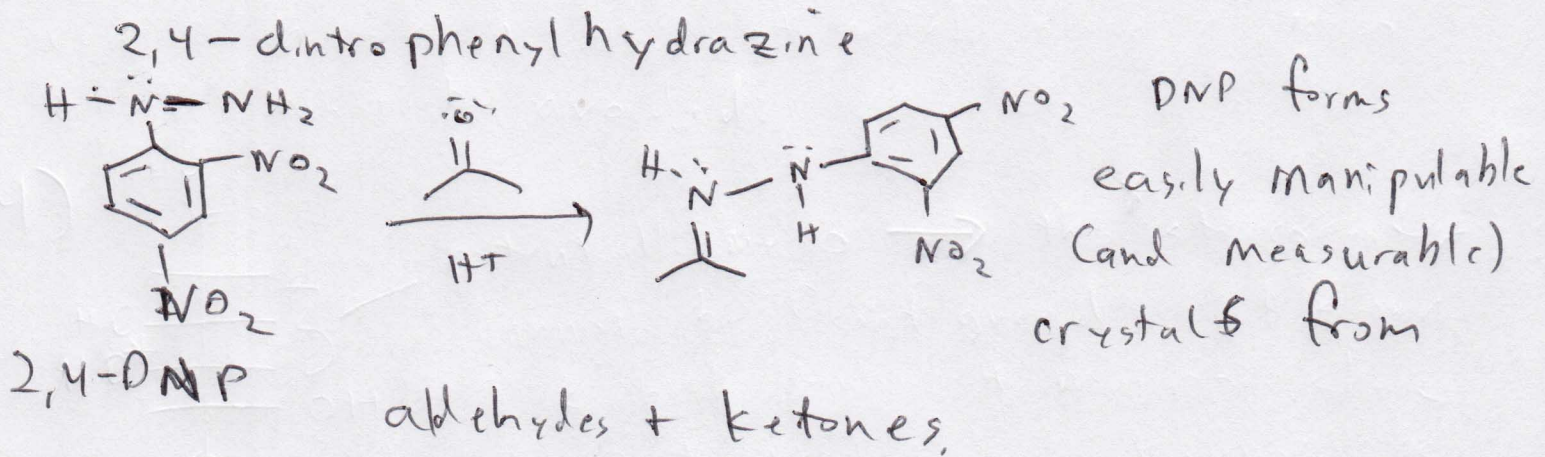


Tollens' Test - Silver mirror test



The Tollens' test is often used as a qualitative way to distinguish between aldehydes + ketones, as aldehydes can be oxidized, but ketones normally cannot.

- Test for aldehyde and/or ketone: DNP



Ketoses return a "false positive" to the Tollens' test, because ketoses are α -hydroxy-ketones

