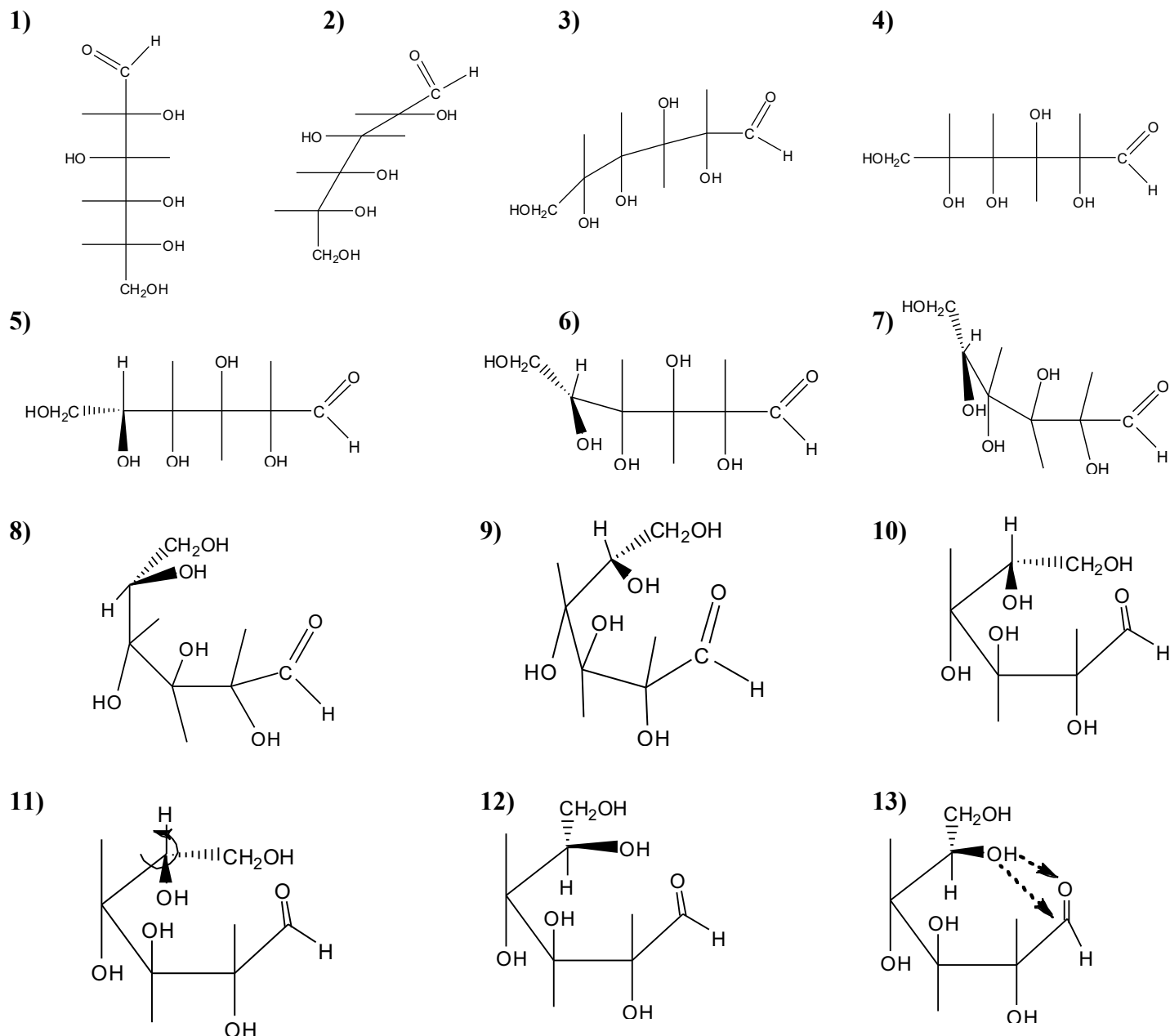


Glucose Fischer to Haworth projection, step by step.

Using this handout, convince yourself that D-sugars have the $-\text{CH}_2\text{OH}$ group pointing up on their ring form, and that the carbonyl carbon becomes chiral when the hemiacetal is formed; as a result, the new $-\text{OH}$ group may have two different positions (α or β).



When the hemiacetal is formed, there are two possible positions for the new OH:

