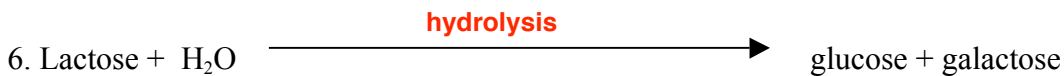
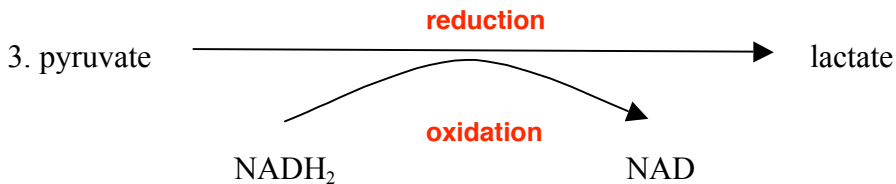
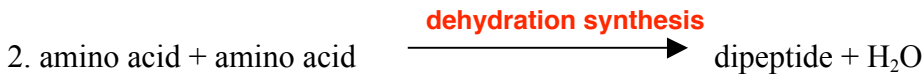
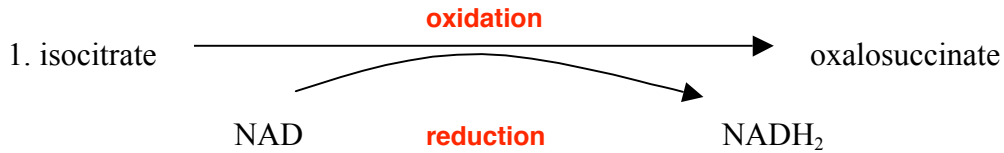
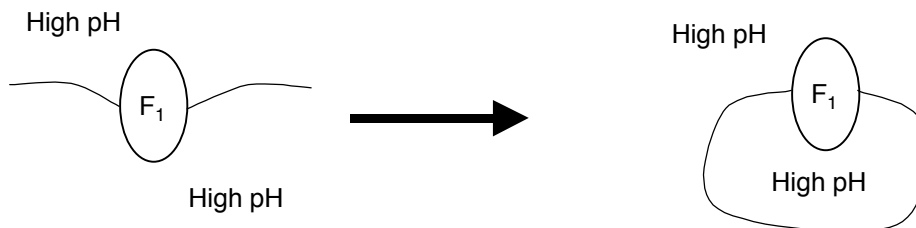


ANSWERS TO PROBLEMS (CELLULAR RESPIRATION):

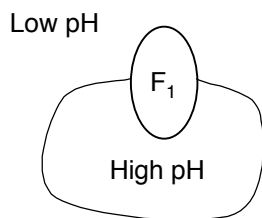
A. Identify the kind of chemical reaction listed below:



B. Suppose you isolated F₁ particles in fragments of mitochondrial membrane and you let them re-seal in a high pH solution containing ADP and P_i.



Then you collect these re-sealed vesicles and transfer them to a lower pH solution .



What would you expect to happen and why?

ATP should be produced by chemiosmotic phosphorylation. This process requires only the presence of a functional F₁ particle (ATP synthase) and a pH gradient. Both of which are provided in this “in vitro” (literally “in glass,” in this case in a test tube) experiment.