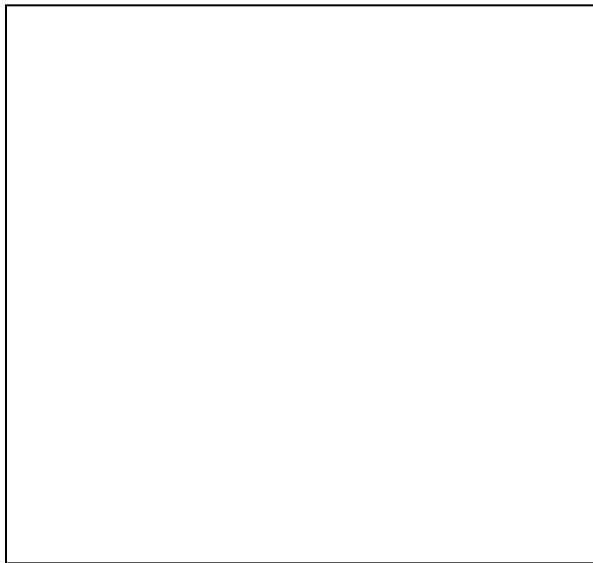


**Round: 6A**

1. Starting with the mixing of carbon dioxide and water, write out the balanced, stepwise reactions and the overall balanced reaction that represent the oceanic carbonate buffering system. (4 pts)
2. Graph a vertical profile of calcium carbonate concentration versus water depth in the Atlantic Ocean. Label all axes and indicate the lysocline at an appropriate depth. (8 pts)



3. How would the above plot appear in a more acidic ocean? (6 pts)
4. What life stage of a sea urchin is most vulnerable to ocean acidification? (2 pts)