4. (10 pts)One possible, <u>but incorrect</u>, mechanism for base hydrolysis of esters is shown below. This mechanism was disproven by running the reaction with NaOH enriched in ¹⁸O. Carefully describe what the results were in this experiment and how these results disproved the mechanism shown.

5. (10 pts)Circler the more acidic compound below, and EXPLAIN your reasoning.

$$NO_2$$
 NO_2