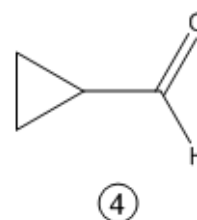
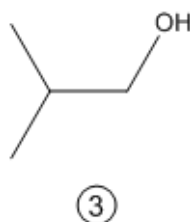
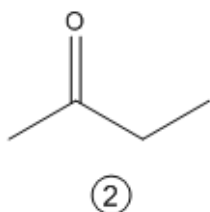
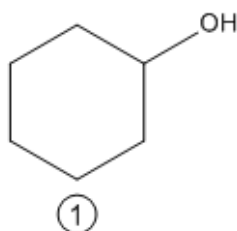


## CONCEPT: OXIDATION

☐ Oxidizing agents are used to oxidize molecules

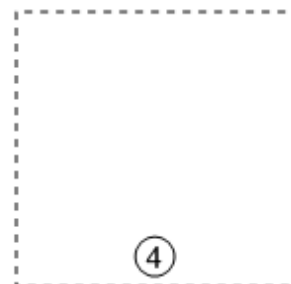
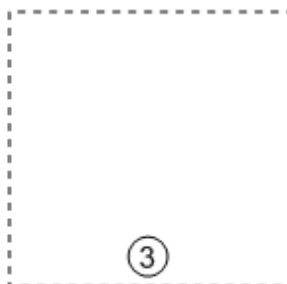
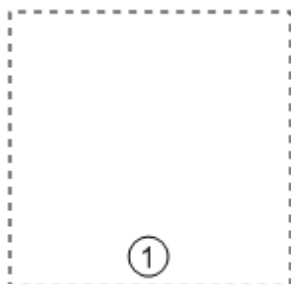
- Most oxidizing agents add as much oxygen as possible while not breaking ANY C-C bonds.

**EXAMPLE:** Which of the following compounds could be oxidized?

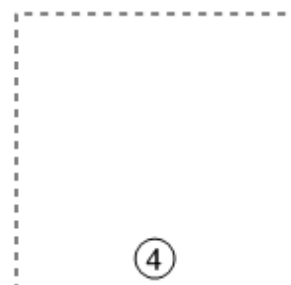
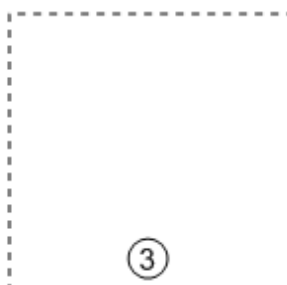
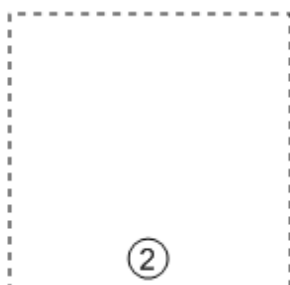
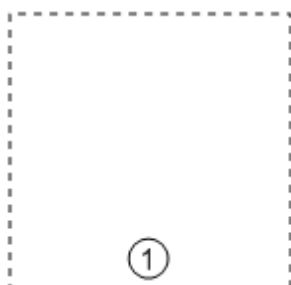


☐ These are called **strong** oxidizing agents. They include  $\text{KMnO}_4$  and the  $\text{Cr}^{6+}$  reagents ( $\text{H}_2\text{Cr}_2\text{O}_4$ ,  $\text{CrO}_3$ ,  $\text{K}_2\text{Cr}_2\text{O}_7$ , etc.)

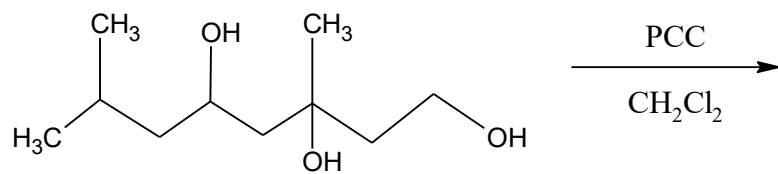
**EXAMPLE:** Draw the products of the previous molecules with a strong oxidizing agent



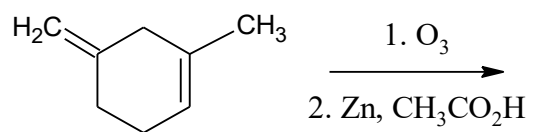
☐ PCC is a **weak** oxidizing agent. It reacts similar but can only add \_\_\_\_ equivalent of oxygen to  $1^\circ$  alcohols.



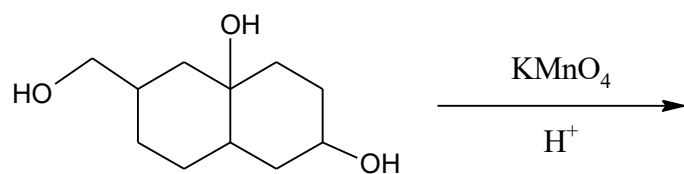
PRACTICE: Provide the major product for the following oxidation reaction.



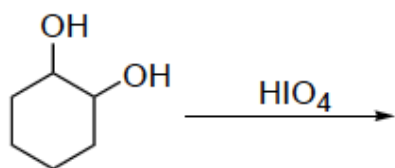
PRACTICE: Provide the major product for the following oxidation reaction.



PRACTICE: Provide the major product for the following oxidation reaction.



PRACTICE: Provide the major product for the following oxidation reaction.



PRACTICE: Determine the major product for the following reaction.

