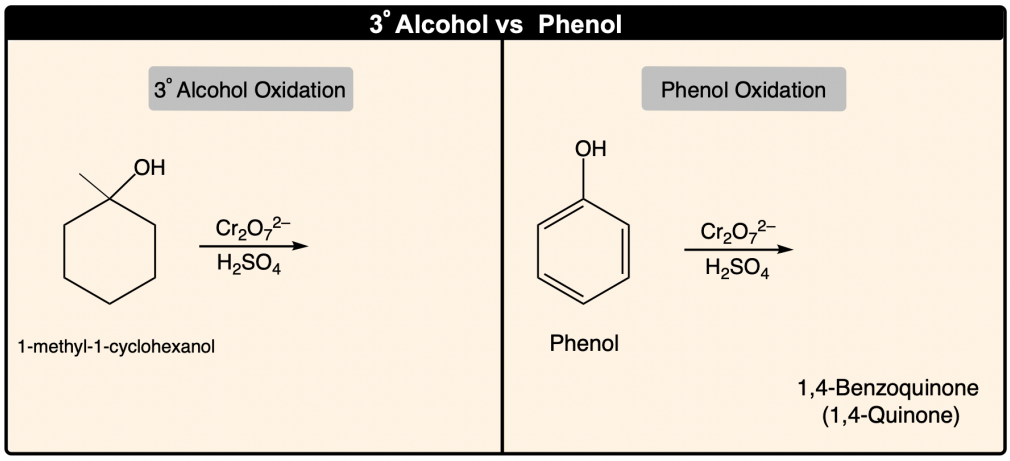
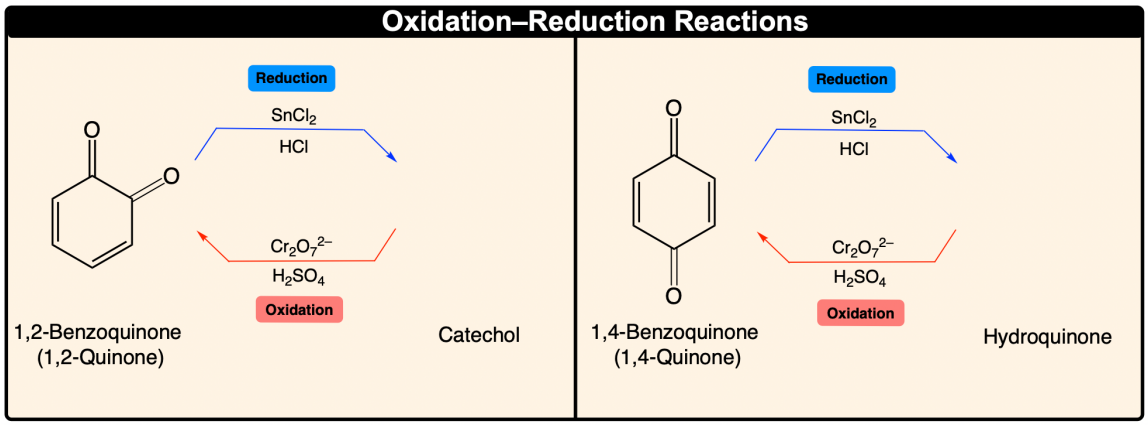
CONCEPT: OXIDATION OF PHENOLS TO QUINONES

- Phenol can be oxidized into quinone in the presence of the _____ oxidizing agent _____.
  - □ Quinone is a conjugated 6-membered ring that possesses carbonyls that are _____ or _____ to each other.
    - Quinone is also named as _____.

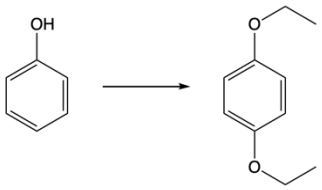


- Quinone can undergo reduction to yield catechol or hydroquinone.
  - □ Reduction can be accomplished by either _____ or catalytic _____.



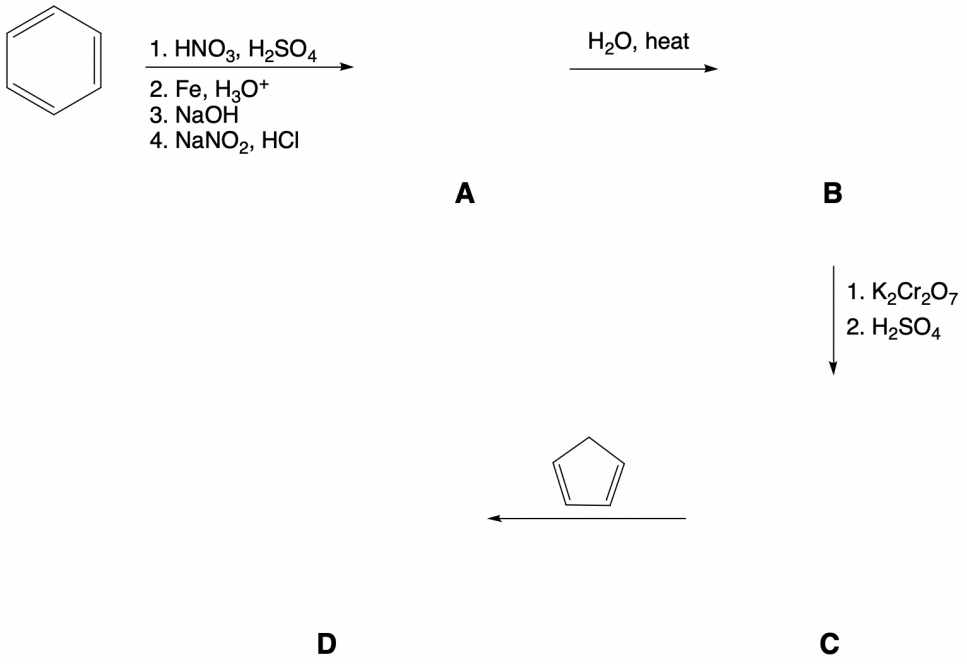
- **Note:** Both _____ and _____ can be oxidized into 1,4-Quinone.

EXAMPLE: Beginning from phenol, determine the chemical steps needed to prepare the following compound.



CONCEPT: OXIDATION OF PHENOLS TO QUINONES

PRACTICE: Determine the products made during each of the following steps.



PRACTICE: Beginning from phenol, determine the chemical steps needed to prepare the following compound.