1. Give the complete name for the following molecule:

Name: \textit{m}-propylphenol or \textit{meta}-propylphenol or 3-propylphenol

2. Plot the relative energies of the $\pi$-molecular orbitals for the following molecule, label each orbital as bonding, non-bonding, or anti-bonding, and fill the orbitals with the appropriate number or electrons. Finally, determine if the compound is aromatic or anti-aromatic (this molecule is completely planar).

![MO Diagram]

3. Draw the mechanism for the following reaction. You do not need to show how the electrophile is formed, but you should include the active electrophile in the mechanism.

![Mechanism Diagram]