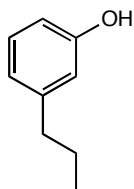
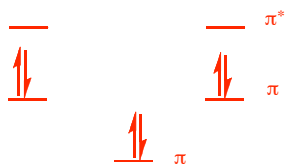
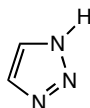


1. Give the complete name for the following molecule:



Name: *m*-propylphenol or *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 of electrons. Finally, determine if the compound is aromatic or anti-aromatic (this molecule is completely planar).



closed shell=aromatic

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.

