KEY Week (1) Packet

Topics Covered:
- Electrophilic aromatic substitution (EAS)
- Addition with acid and base (review of 51B)
- Substituent effects: electron donating groups (EDG) and electron withdrawing groups (EWG)

1) Under acidic conditions, the amino group is protonated resulting in a positively charged deactivating group. This makes amines different from protonated amines or ammonium ions. Where as amines are strongly donating and do ortho-para substitution, ammonium ions are strong deactivators and do meta substitution.
2) The following proposed mechanism follows through all the general steps of any EAS mechanism.
   1. Activation of electrophile
   2. Aromatic attack of electrophile (with resonance stabilized intermediate)
   3. Rearomization

*Note from Grant: The arrow starts at the middle of the bond, NOT an atom!