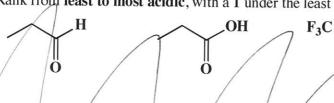
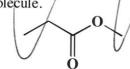
7 (4 pts each) For the following, rank the molecules according to the directions given.

A. Rank from least to most acidic, with a 1 under the least acidic and a 4 under the most acidic molecule.



B. Rank from least to most reactive with nucleophiles, with a 1 under the least reactive and a 4 under the most reactive molecule.



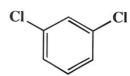


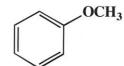
NH₂



H2CIC,

C. Rank from **least to most reactive with wicked strong electrophiles**, with a 1 under the least reactive and a 4 under the most reactive molecule.

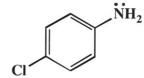








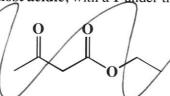
D. Rank from least to most basic, with a 1 under the least basic and a 4 under the most basic molecule.



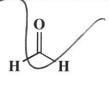
$$\bigcap_{O_2N} \bigvee^{NH_2}$$

E. Rank from least to most acidic, with a 1 under the least acidic and a 4 under the most acidic molecule.









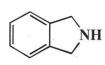
F. Think this through!! Rank from **least to most acidic**, with a 1 under the least acidic and a 4 under the most acidic molecule.

NO₂

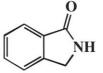
O

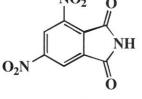
NO₂

O

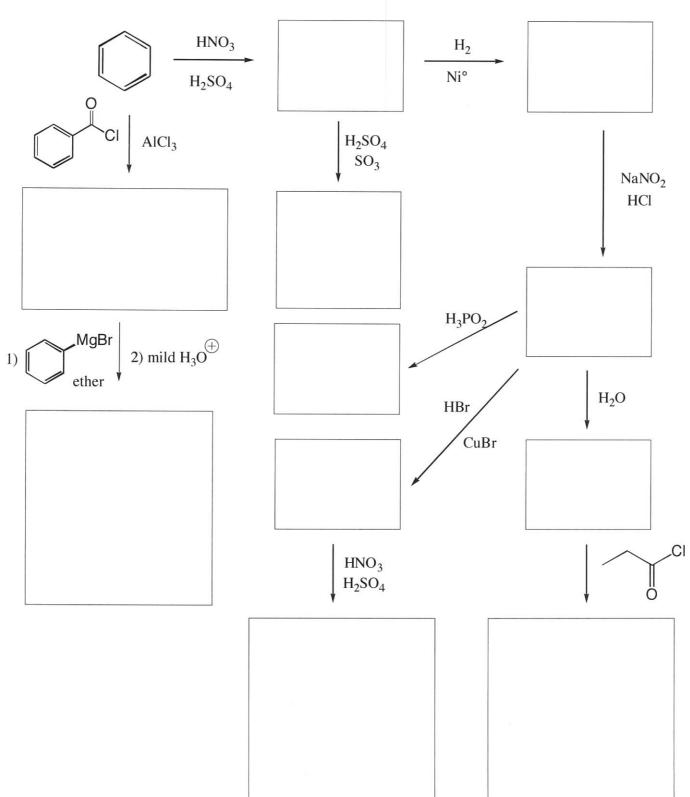




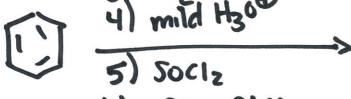




12. (34 pts.) Write the predominant product or products that will occur for each transformation. Assume each reagent only adds once to the ring. If predominantly ortho/para products are predicted, you must draw both.



3)
$$H_2C = CH_2 \rightarrow$$



- 6) (, Alc13
- 7) NHZNHZ , NOCH