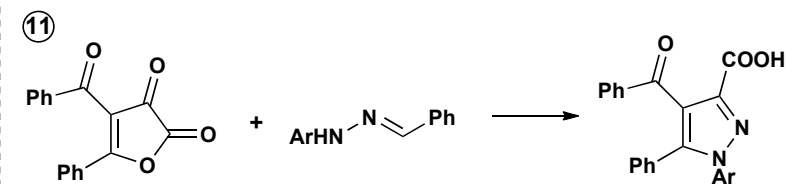
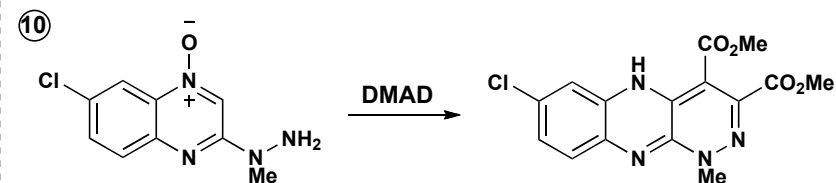
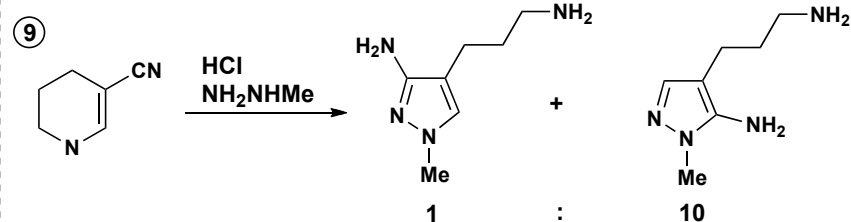
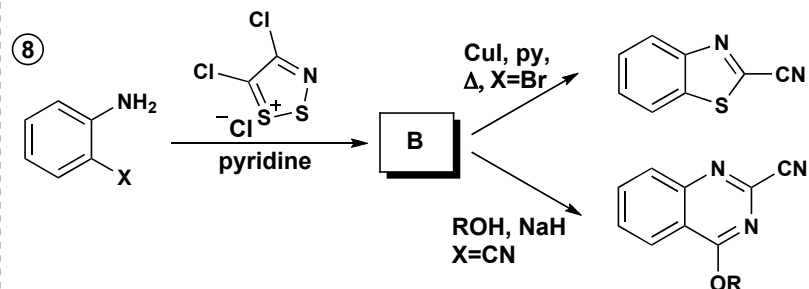
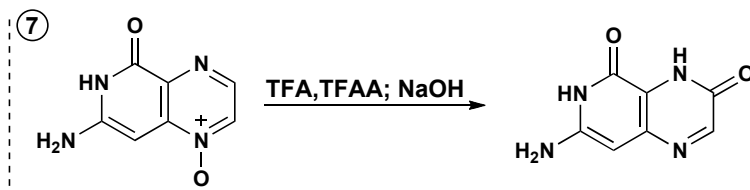
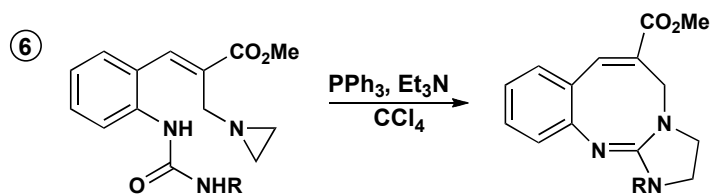
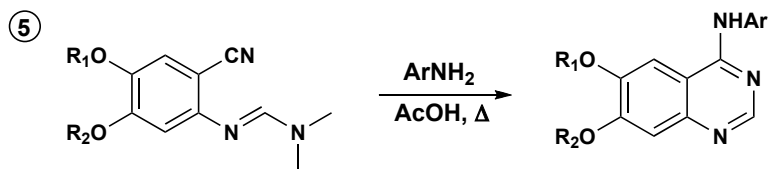
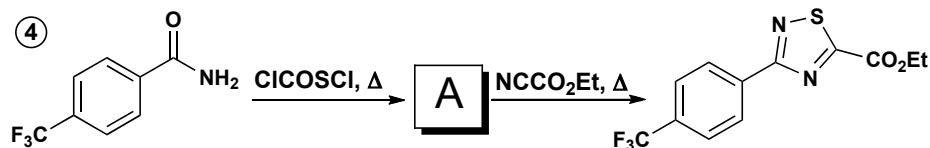
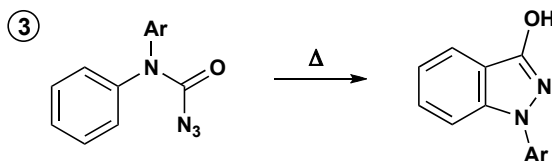
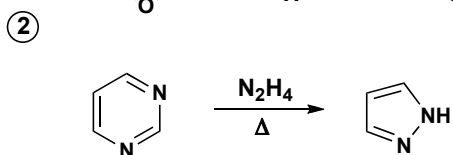
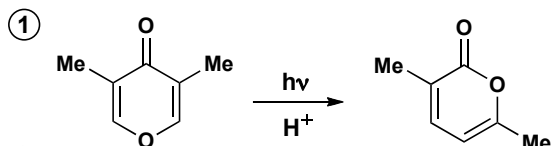


1) Please provide a mechanism for the following transformations. (5 points each)



2) Please provide simple syntheses for the following compounds. (5 points each)
(You may not use Pd or other similar metals that achieve cross-coupling.)

