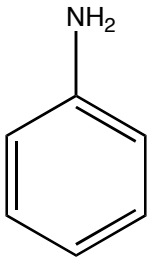
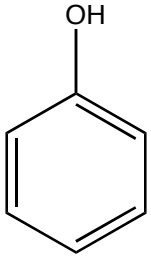
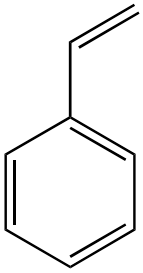
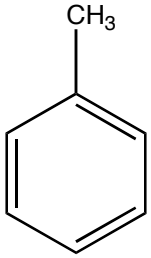
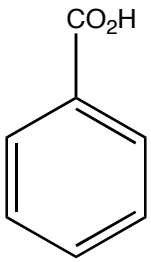
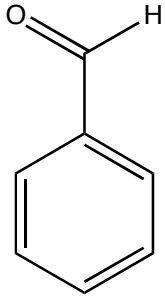
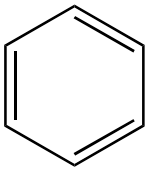
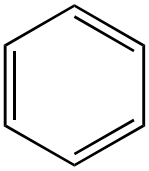
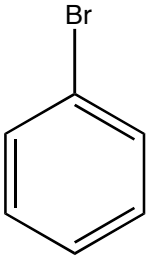
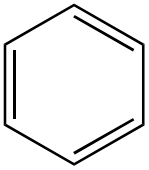
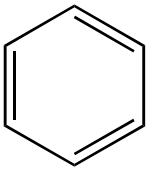
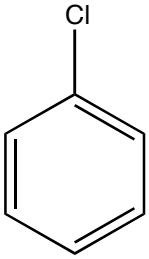
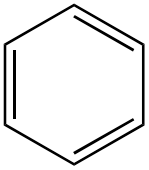
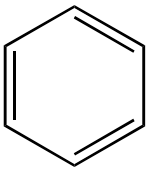
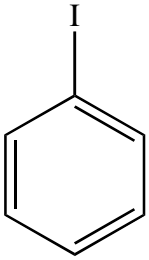
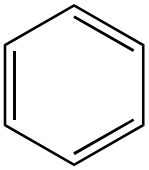
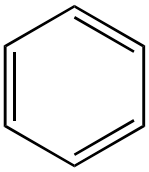
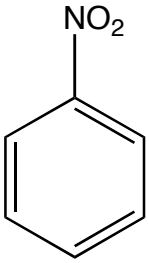
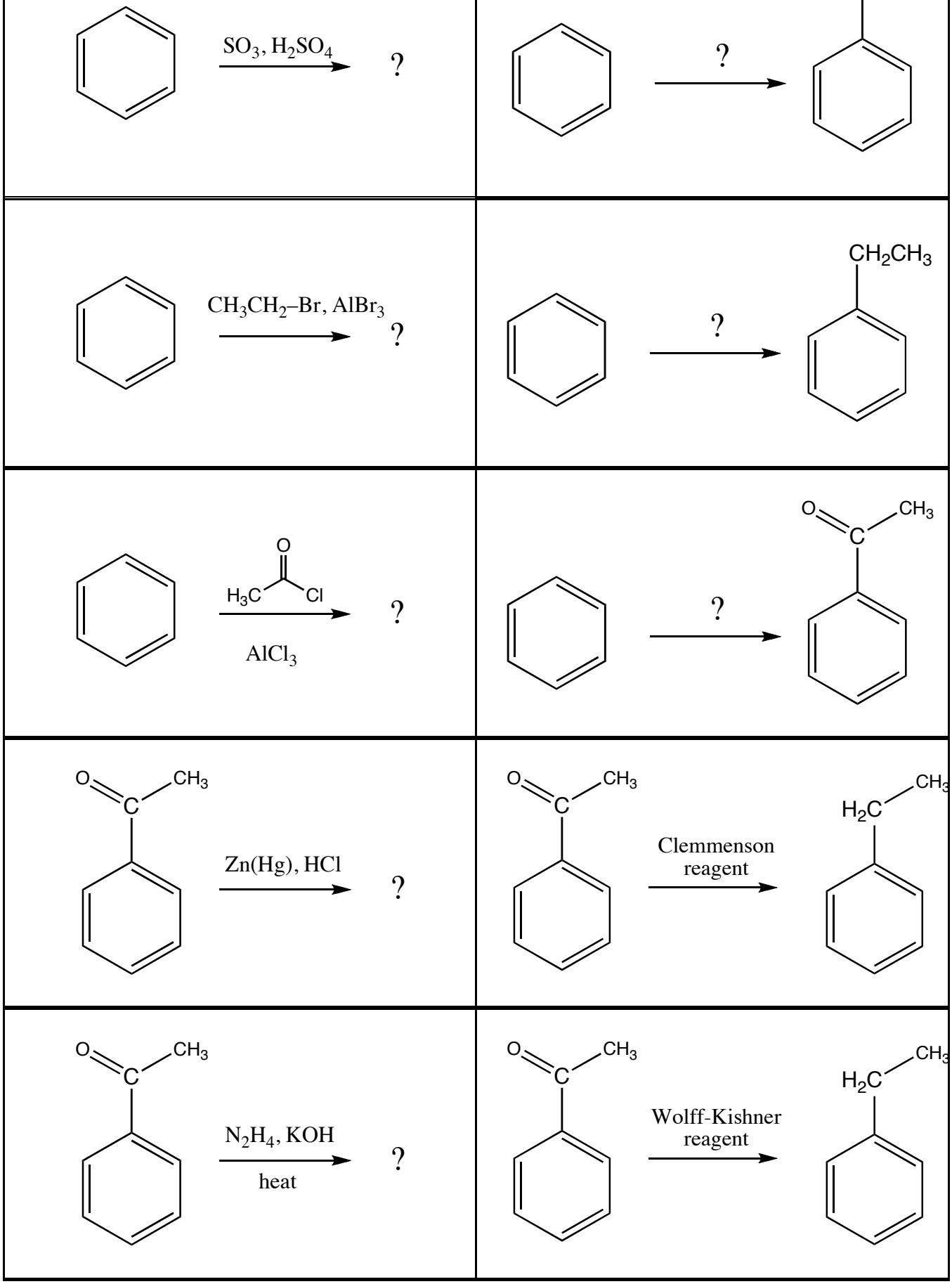
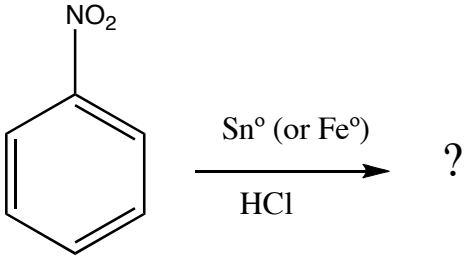
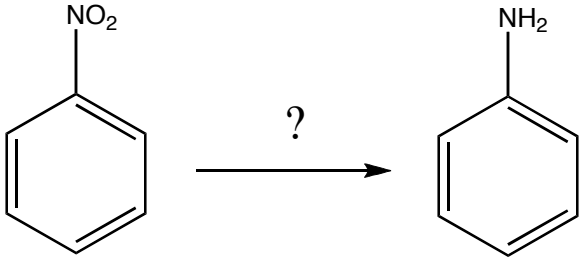
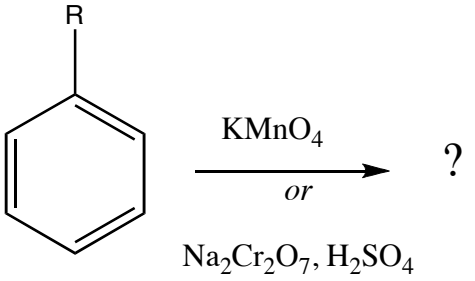
Name the following molecule:  	Draw the structure of ANILINE
Name the following molecule:  	Draw the structure of PHENOL
Name the following molecule: 	Draw the structure of STYRENE
Name the following molecule:  	Draw the structure of TOLUENE
Name the following molecule:  	Draw the structure of BENZOIC ACID

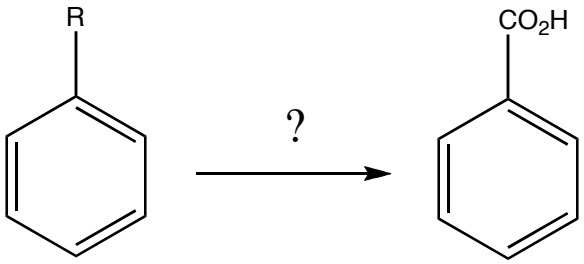
Name the following molecule:  	Draw the structure of BENZALDEHYDE
 $Br_2, FeBr_3$?	 ? 
 $Cl_2, AlCl_3$?	 ? 
 $I_2, CuCl_2$?	 ? 
 HNO_3, H_2SO_4 ?	 ? 


SO3, H2SO4
?
SO3H
?
CH3CH2–Br, AlBr3
?
CH2CH3
?
O
H3C
Cl
AlCl3
?
O
C
CH3
?
O
C
CH3
Zn(Hg), HCl
?
O
C
CH3
Clemmenson
reagent
CH3
H2C
O
C
CH3
N2H4, KOH
heat
?
O
C
CH3
Wolff-Kishner
reagent
CH3
H2C









Order of reactivity of electron donor groups towards EAS:

$NR_2 > OH > OR > NHCOR > R > Ph$

Order of reactivity of electron withdrawing groups towards EAS:

$\overset{\oplus}{N}R_3 < NO_2 < CN < SO_3H < COG < X$

Electron-donor groups are activating towards EAS, and are ortho-, para-directing groups

Electron-withdrawing groups are deactivating towards EAS, and are meta-directing groups

[4n + 2] pi electrons = ?

What is the Huckel number of pi electrons for an aromatic molecule?