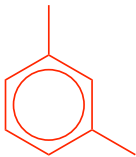
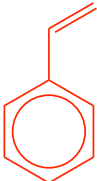

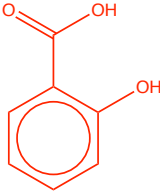
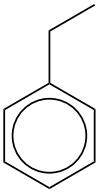
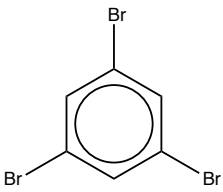
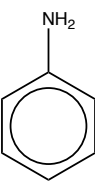
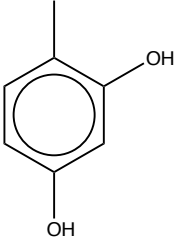




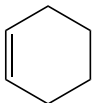
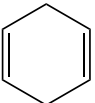
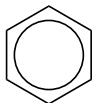
1 Draw the following aromatic compounds.

			
1,3-dimethylbenzene	phenylethene	4-nitromethylbenzene	2-hydroxybenzoic acid

2 Name the following aromatic compounds.

			
ethylbenzene	1,3,5-tribromobenzene	phenylamine	2,4-dihydroxymethylbenzene

3 a Complete the table to show the enthalpy of hydrogenation of these three compounds.

Compound			
Enthalpy of hydrogenation (kJ mol ⁻¹)	-120	-240	-208

b What do these values tell us about the structure of benzene?

**might expect a 6-membered ring with 3 double bonds to be -360
but benzene is 152 kJ mol⁻¹ more stable than that
due to delocalisation of electrons around the ring
which reduces electron-electron repulsion**