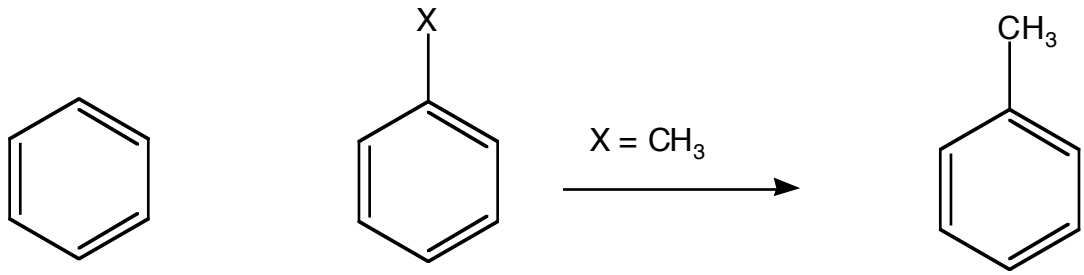
Problem 19, Chemistry 301X-2006

In Problem 10, you met benzene, $(CH)_6$. Of course there can be substituted benzenes, C_6H_5X and disubstituted benzenes, $C_6H_4X_2$.



benzene toluene

(a) How many different dimethylbenzenes (xylenes) are there?

(b) Could you distinguish those possibilities by ^{13}C NMR spectroscopy? How? (it's super-easy)