



# REACTIONS OF HALOALKANES

## 1) bromoethane + aqueous NaOH

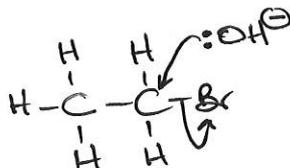
balanced equation (showing structural formulae)



name of organic product *ethanol*

name of mechanism *nucleophilic substitution*

mechanism



## 2) 2-bromopropane + ethanolic KOH

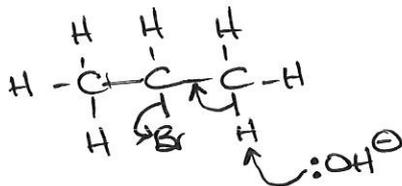
balanced equation (showing structural formulae)



name of organic product *propene*

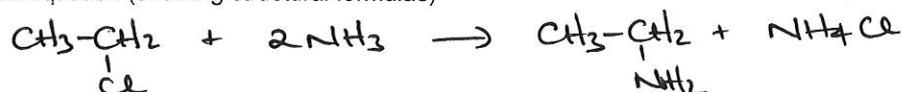
name of mechanism *elimination*

mechanism



## 3) chloroethane + NH<sub>3</sub> (excess of NH<sub>3</sub>)

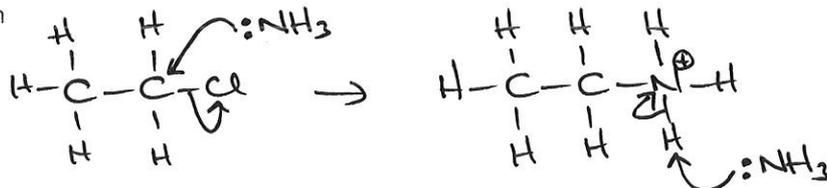
balanced equation (showing structural formulae)



name of organic product *ethylamine*

name of mechanism *nucleophilic substitution*

mechanism



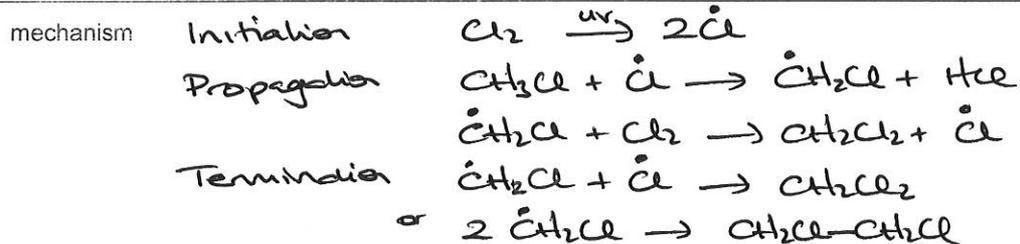
4) chloromethane + chlorine (with uv light, excess of chloromethane)

balanced equation (showing structural formulae)



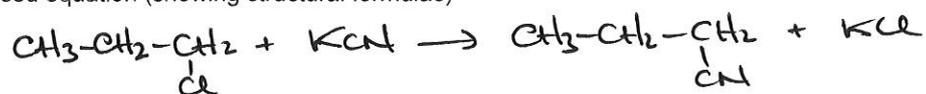
name of organic product      dichloromethane

name of mechanism      free radical substitution



5) 1-chloropropane + KCN

balanced equation (showing structural formulae)



name of organic product      butanenitrile

name of mechanism      nucleophilic substitution

mechanism

