

Synthesis Routes

Chemistry

Getting from one functional group to another, in the fewest steps.

Common single-step conversions.

From → to	Reagent
Alkene → alcohol	Steam, H_3PO_4
Alkene → halogenoalkane	HX
Halogenoalkane → alcohol	Aqueous KOH, reflux
Halogenoalkane → nitrile	KCN in ethanol
Halogenoalkane → amine	Excess NH_3 , ethanol
Alcohol → aldehyde	Acidified dichromate, distil
Alcohol → carboxylic acid	Acidified dichromate, reflux
Nitrile → carboxylic acid	Dilute HCl, reflux

Nitrile formation is the standard way to lengthen a carbon chain by one. That is what it is for in synthesis questions.