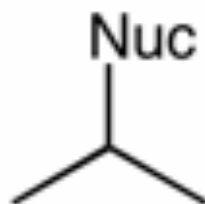
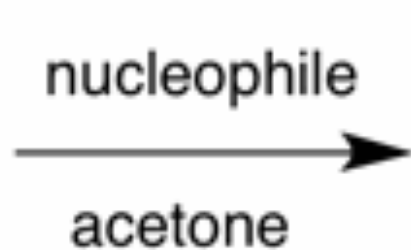
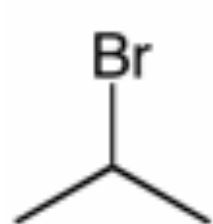


S_N2 vs. $E2$

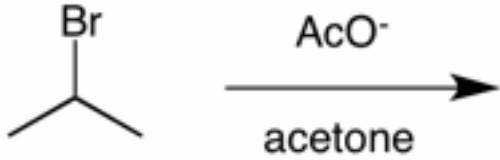
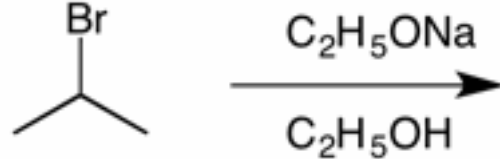
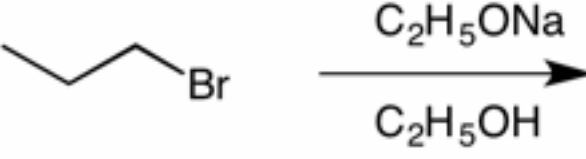
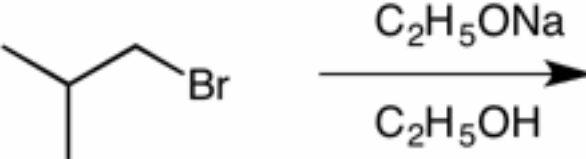
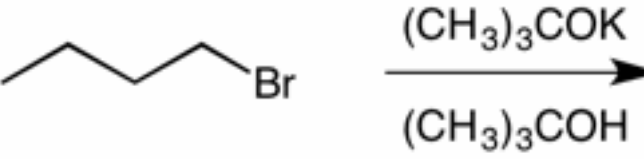
S_N2 on 2-Bromopropane



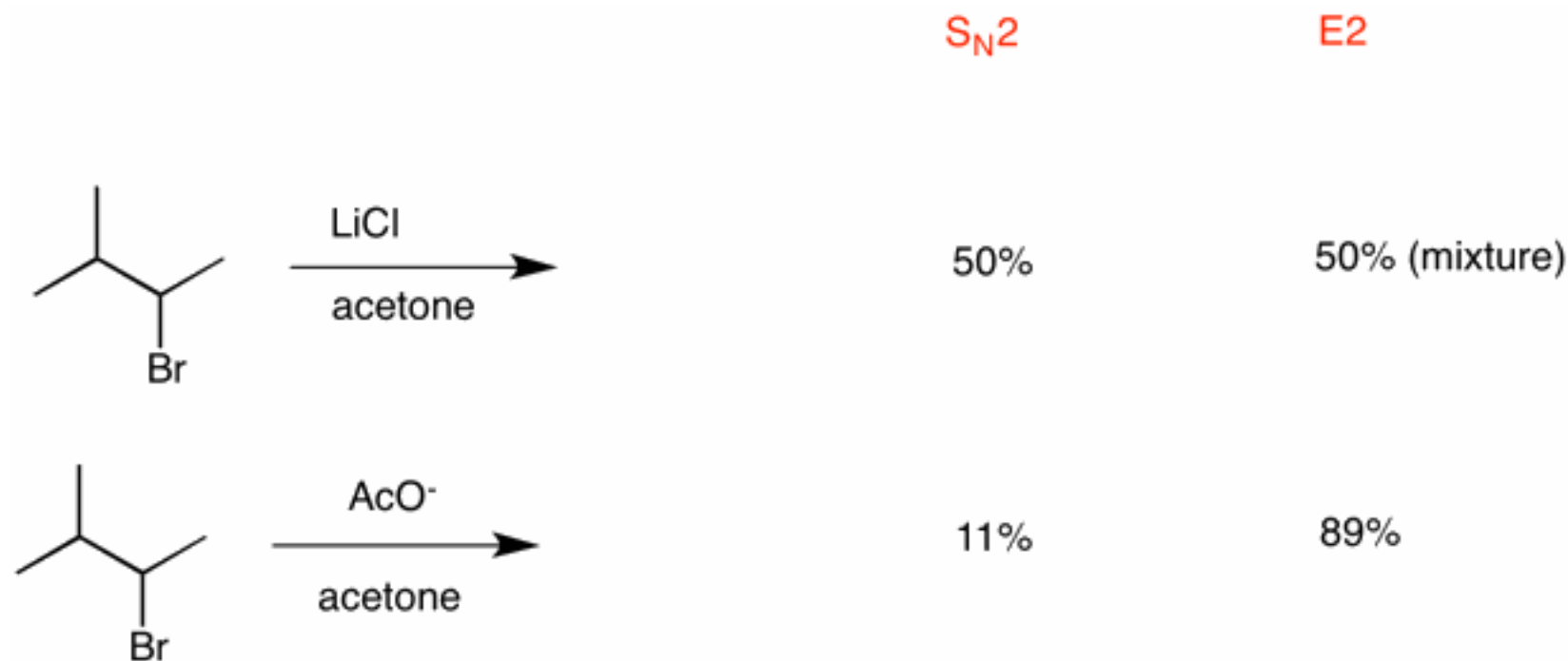
100% S_N2

Nuc = I⁻, RS⁻, N₃⁻, R₃F

S_N2 vs. $E2$

		S_N2	$E2$
	$\xrightarrow[\text{acetone}]{\text{AcO}^-}$	100%	0%
	$\xrightarrow[\text{C}_2\text{H}_5\text{OH}]{\text{C}_2\text{H}_5\text{ONa}}$	13% (21%)	87% (79%)
	$\xrightarrow[\text{C}_2\text{H}_5\text{OH}]{\text{C}_2\text{H}_5\text{ONa}}$	91%	9%
	$\xrightarrow[\text{C}_2\text{H}_5\text{OH}]{\text{C}_2\text{H}_5\text{ONa}}$	40%	60%
	$\xrightarrow[(\text{CH}_3)_3\text{COH}]{(\text{CH}_3)_3\text{COK}}$	15%	85%

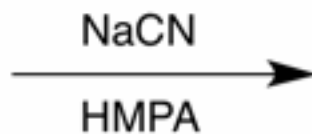
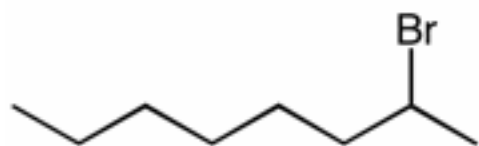
S_N2 vs. $E2$



S_N2 vs. $E2$

S_N2

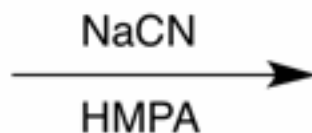
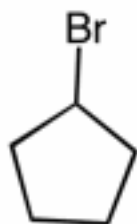
$E2$



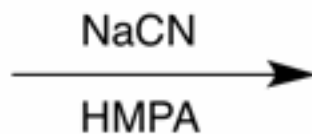
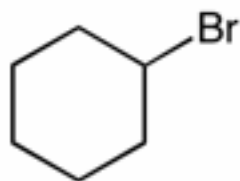
84%

11%

(1-octene &
2-octene)



65%

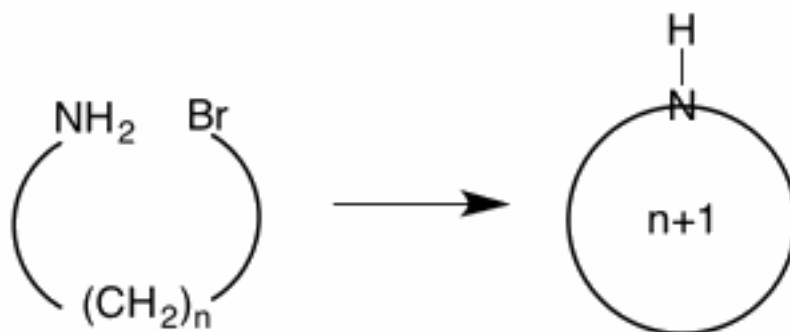


3%

no recovered bromide

$((\text{CH}_3)_2\text{N})_3\text{P}=\text{O} = \text{HMPA}$

Relative Rates of Ring Formation



$n + 1$

Rel. Rate

3

0.1

4

0.002

5

100

6

1.7

7

0.03

10

10^{-8}

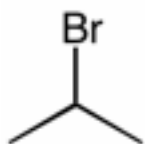
12

$\sim 10^{-5}$

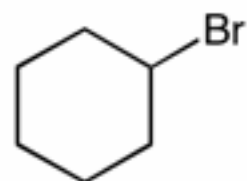


Rel. Rates

Rel. Rates



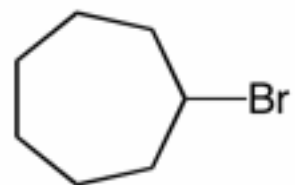
1.0



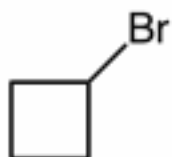
0.01



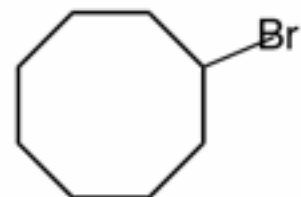
<0.0001



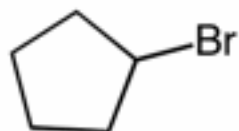
1.0



0.008



0.2



1.6