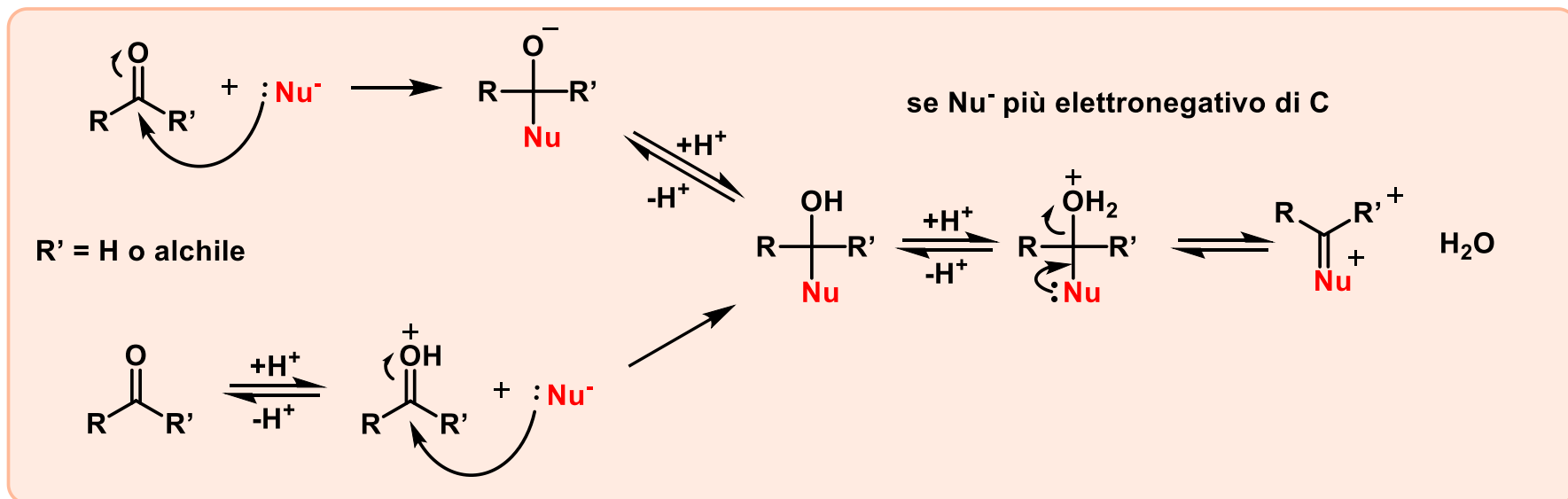
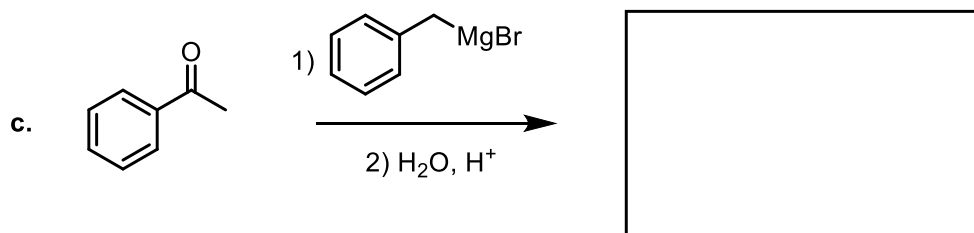
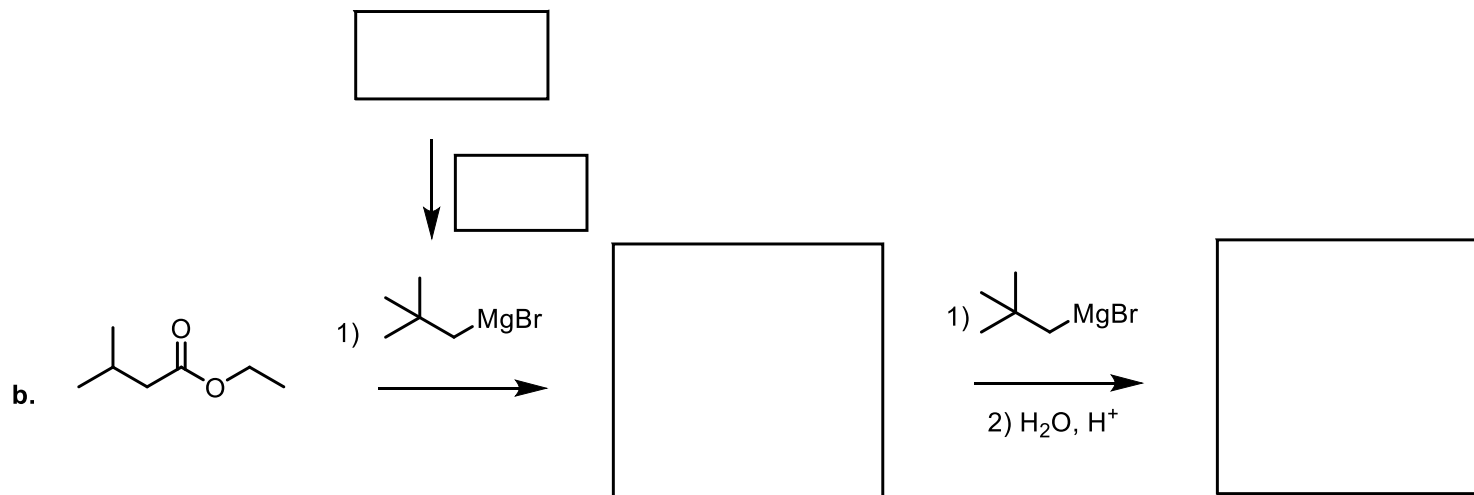
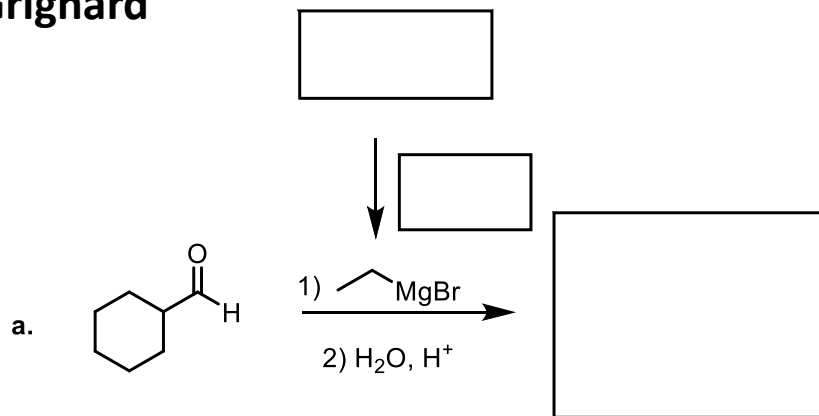


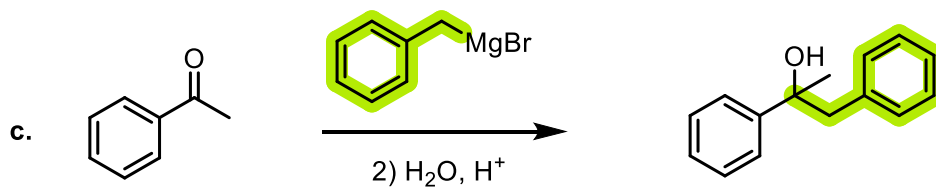
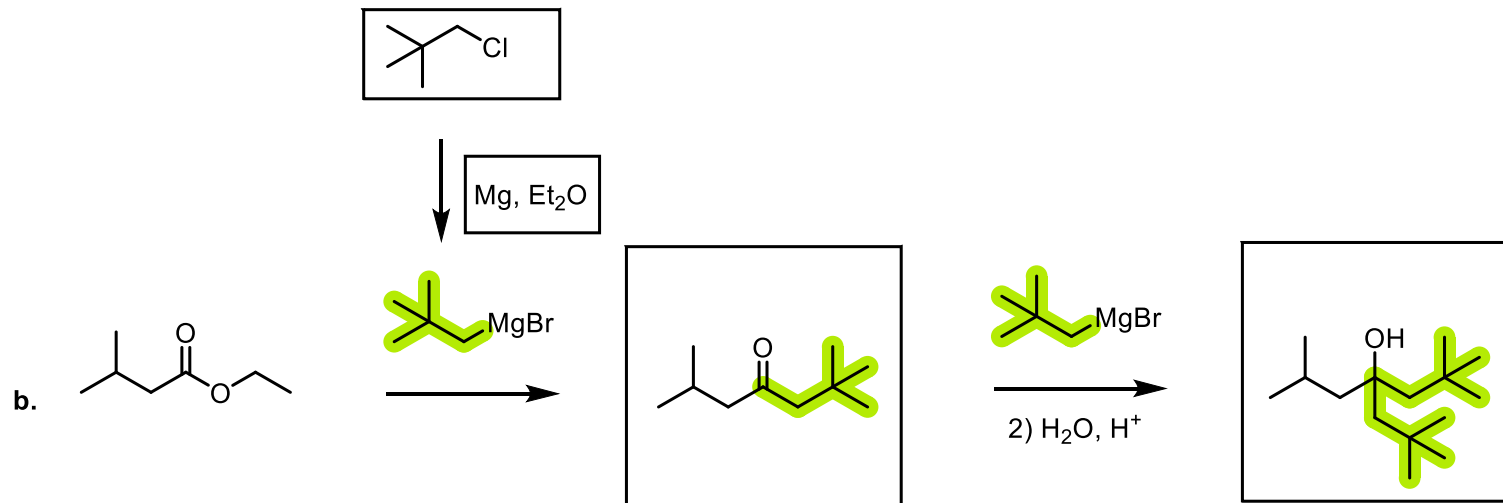
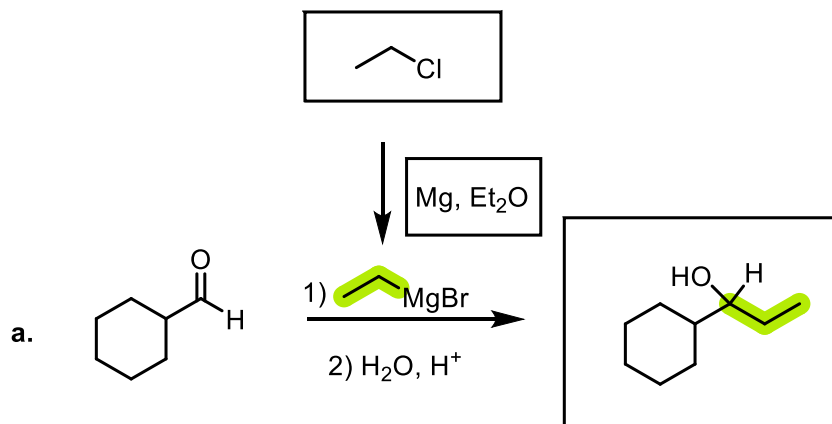
Composti carbonilici: Reazioni di Aldeidi e Chetoni



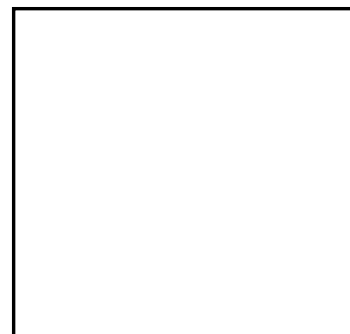
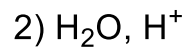
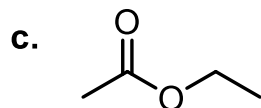
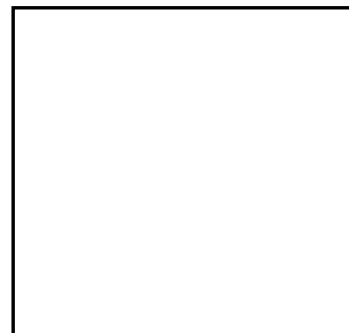
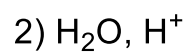
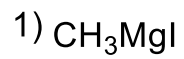
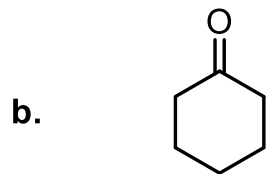
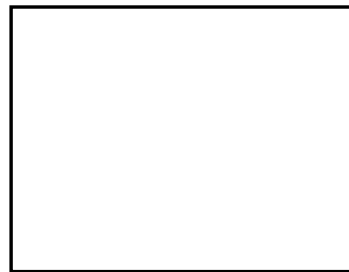
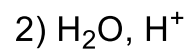
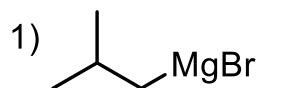
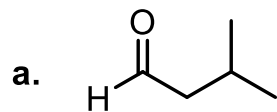
1. Esercizi Grignard



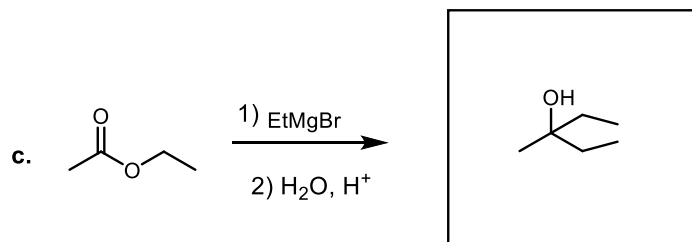
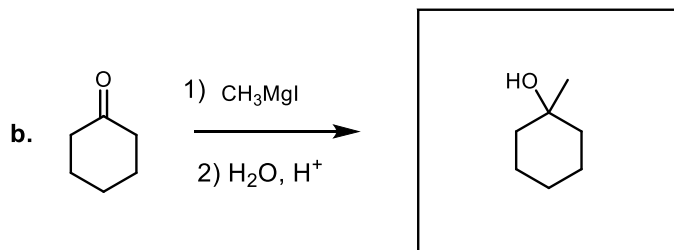
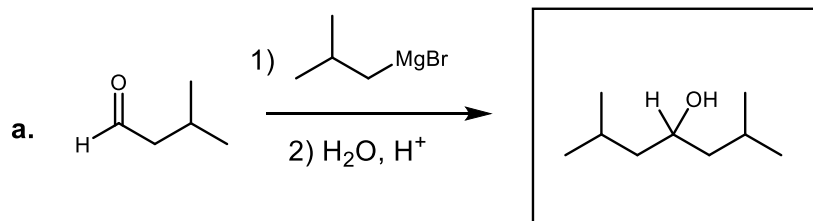
1. Esercizi Grignard - soluzioni



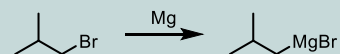
2. Esercizi Grignard



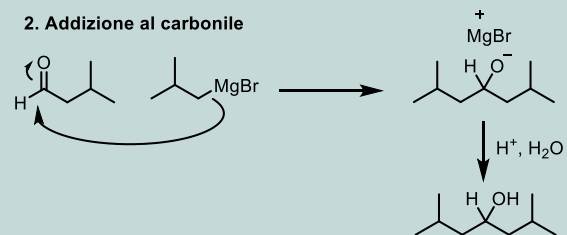
2. Esercizi Grignard - soluzioni



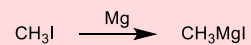
1. Preparazione reattivo di Grignard



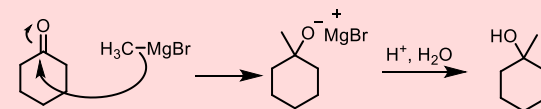
2. Addizione al carbonile



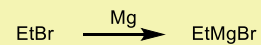
1. Preparazione reattivo di Grignard



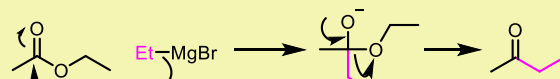
2. Addizione al carbonile



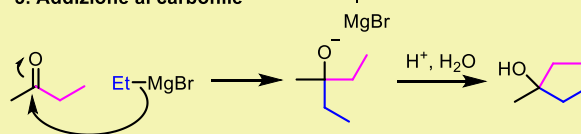
1. Preparazione reattivo di Grignard



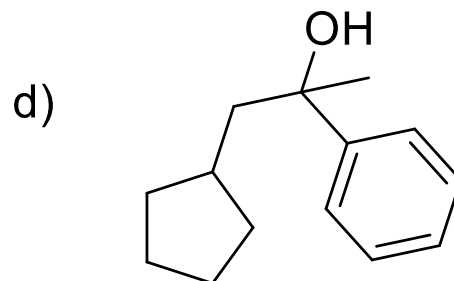
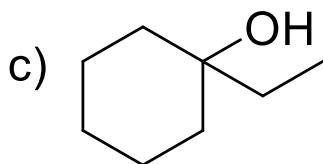
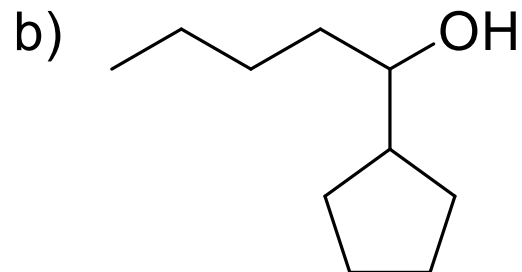
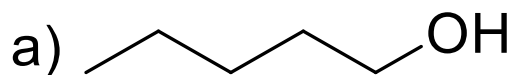
2. Sostituzione al carbonile



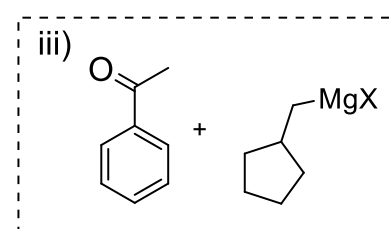
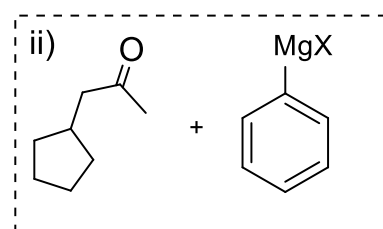
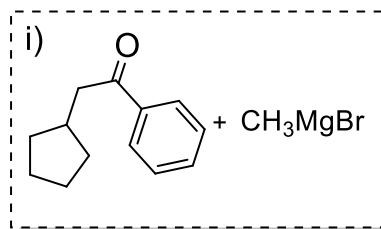
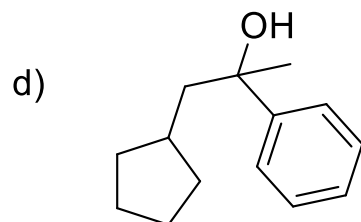
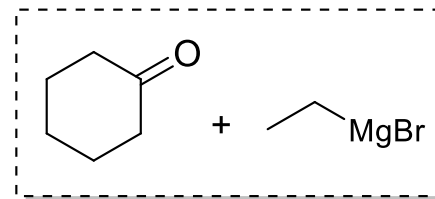
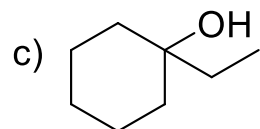
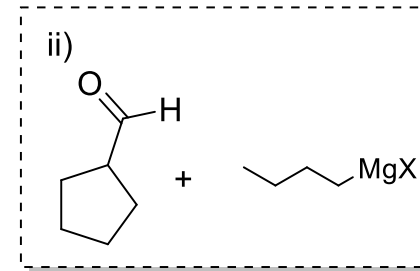
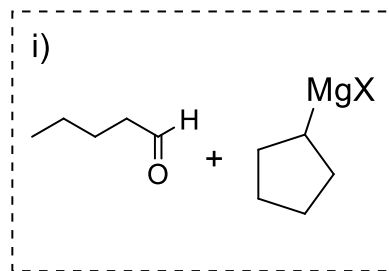
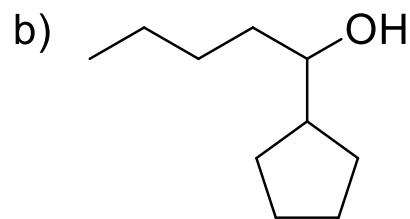
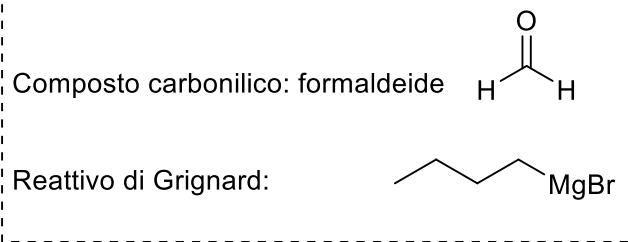
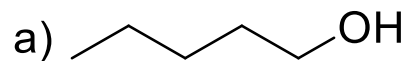
3. Addizione al carbonile



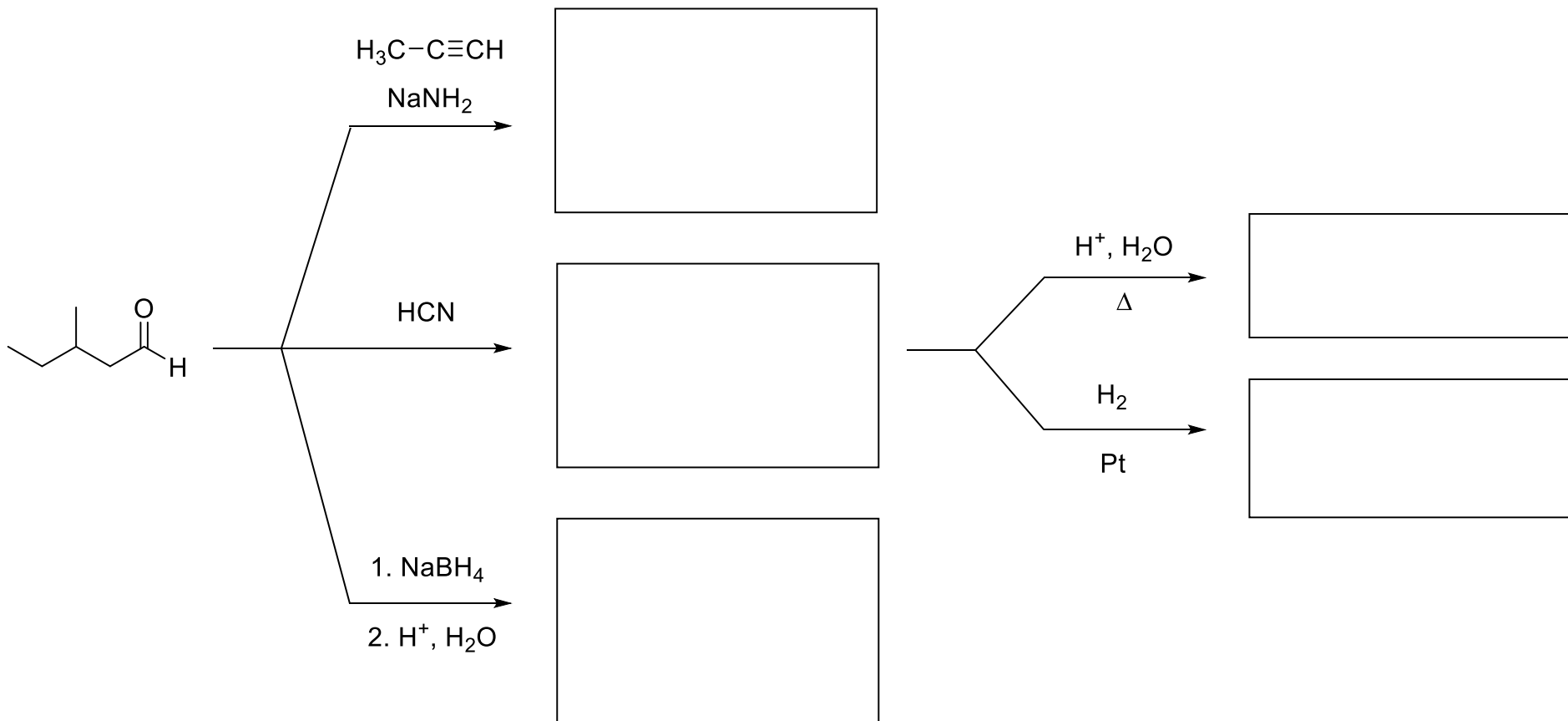
Esercizio: Indicare il reattivo di Grignard ed il composto carbonilico necessari per ottenere i seguenti alcoli (mostrare tutte le possibili strategie).



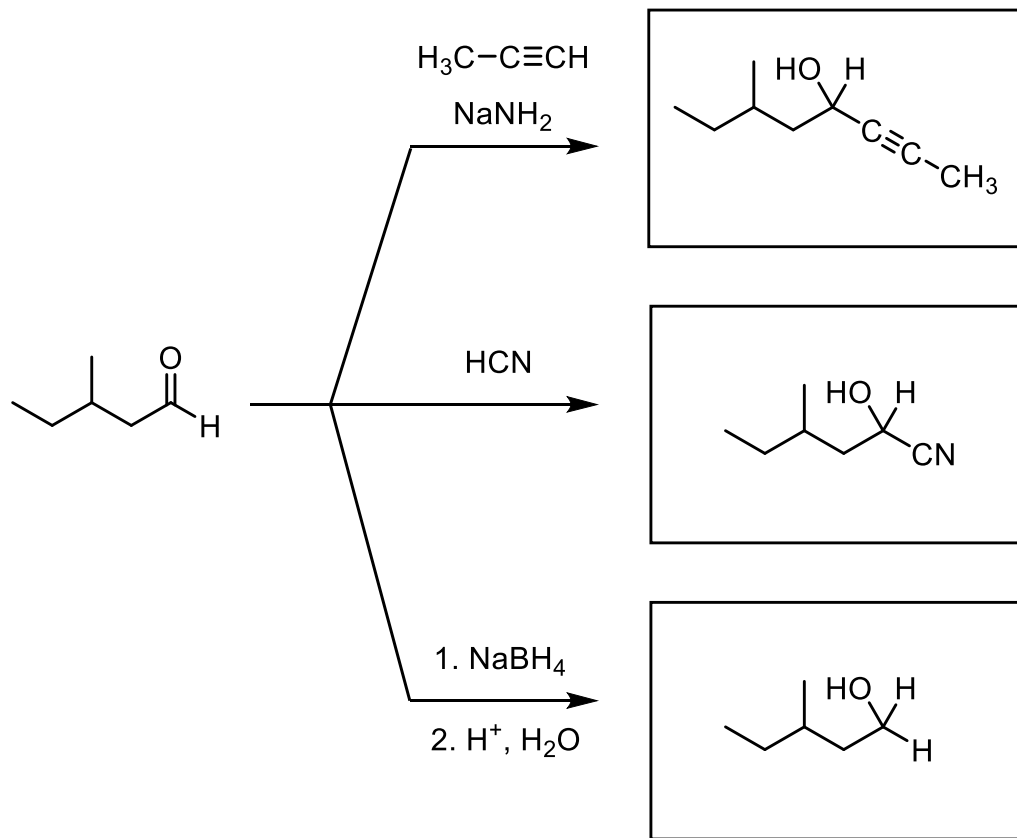
Esercizio: Indicare il reattivo di Grignard ed il composto carbonilico necessari per ottenere i seguenti alcoli (mostrare tutte le possibili strategie).



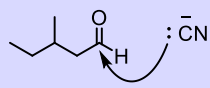
3. Esercizi acetiluro, cianuro e idruro



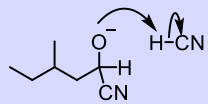
3. Esercizi acetiluro, cianuro e idruro - soluzioni



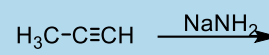
1. Addizione



2. Protonazione



1. Deprotonazione



2. Addizione



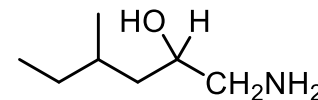
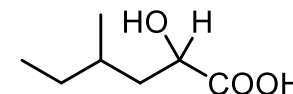
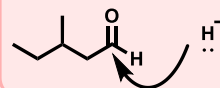
H+, H2O

Δ

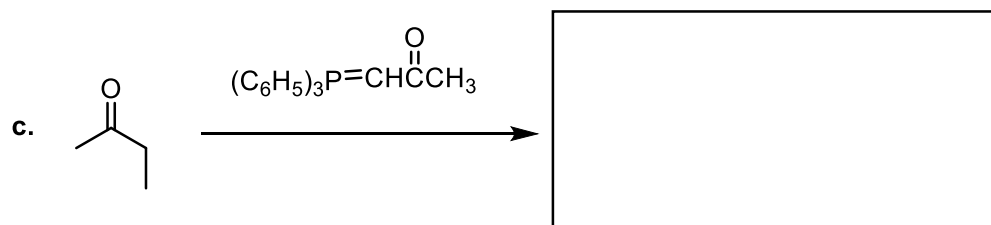
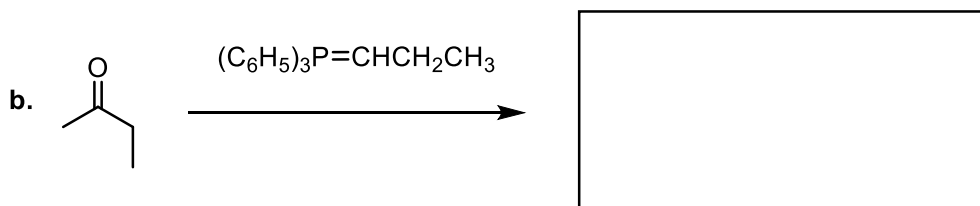
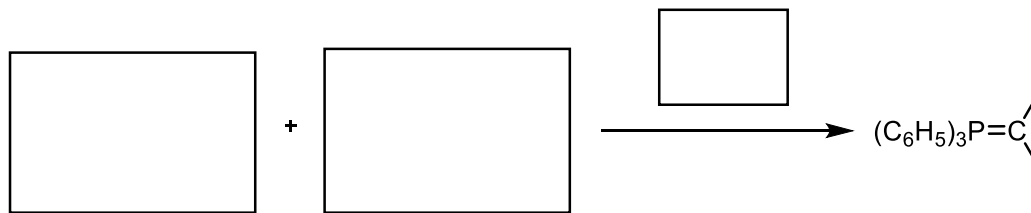
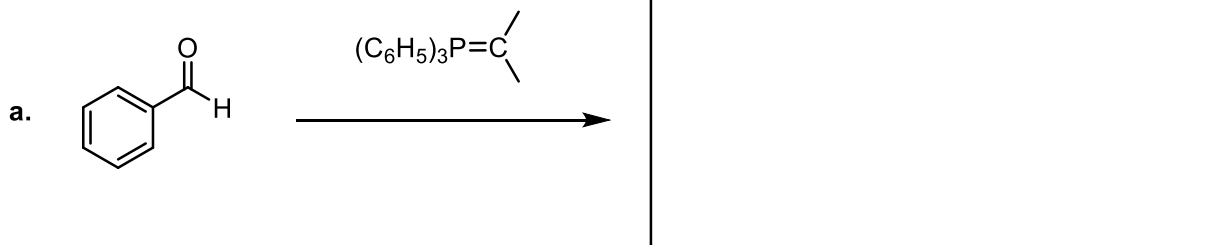
H2

Pt

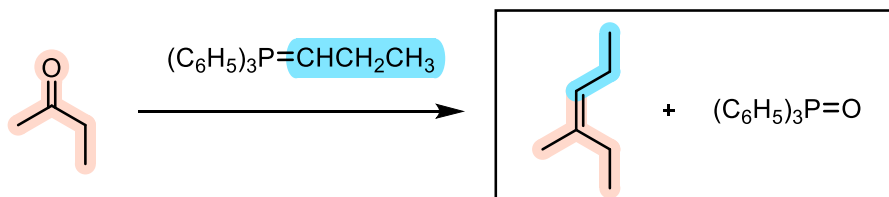
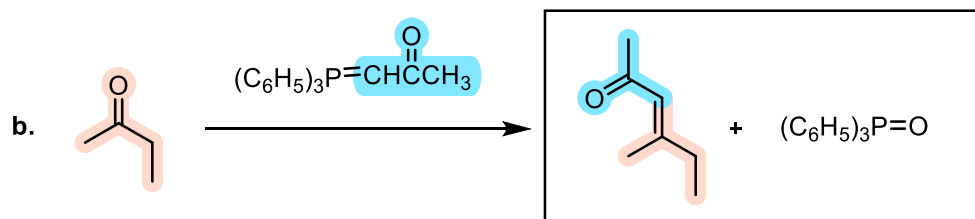
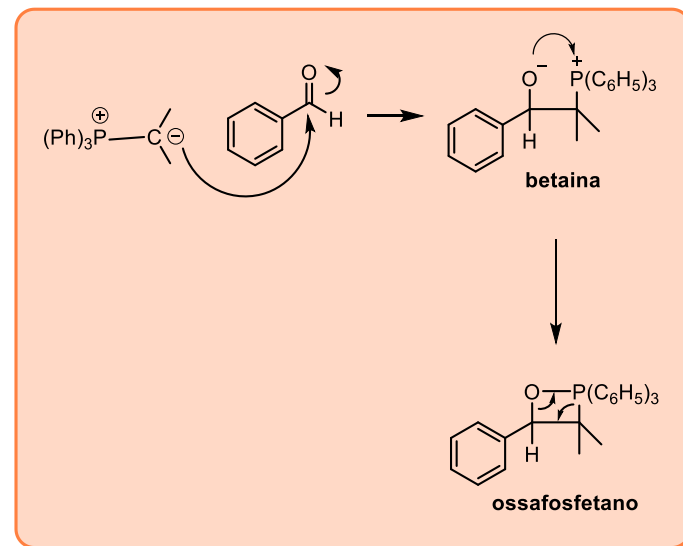
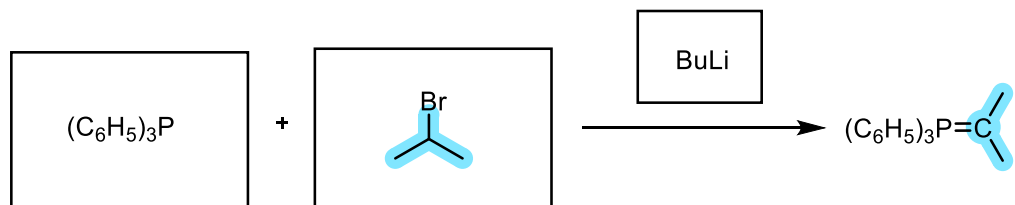
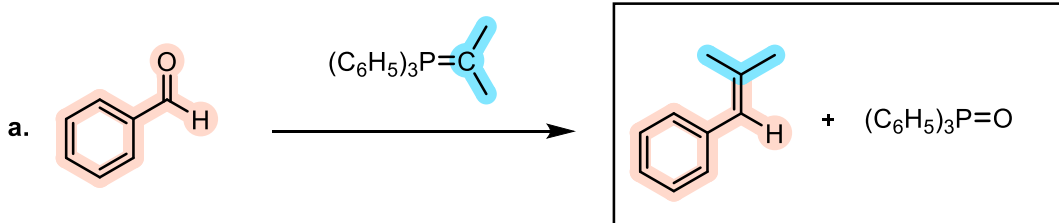
Addizione



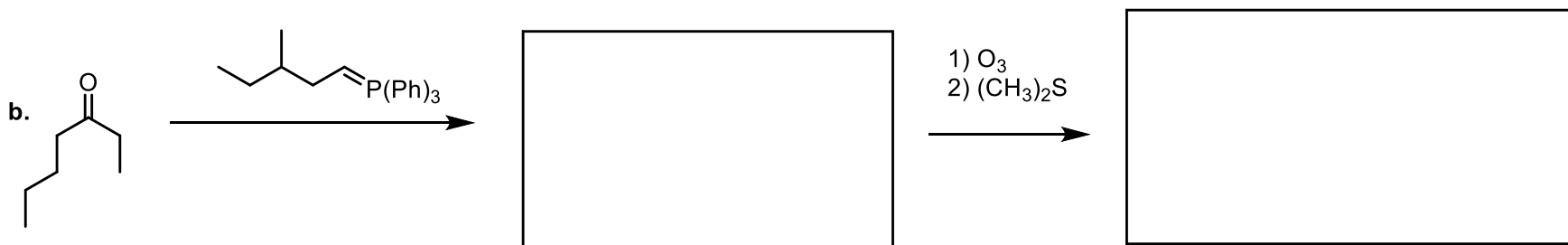
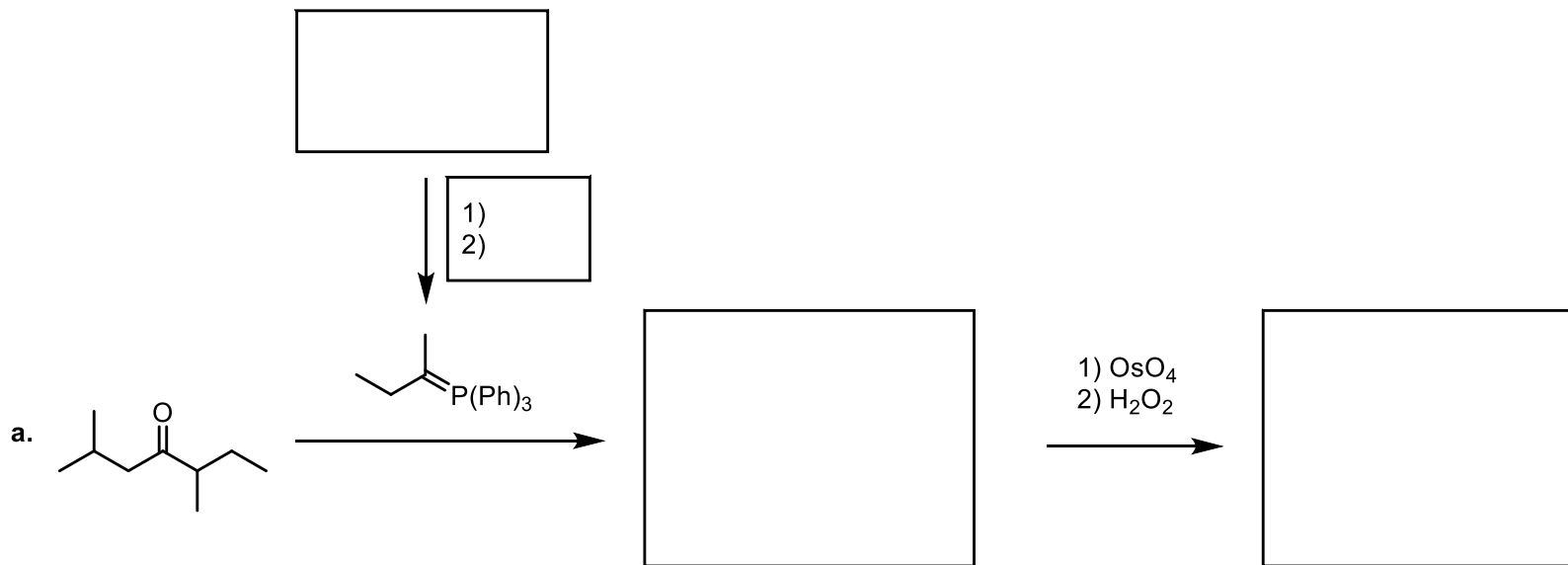
4. Esercizi Wittig



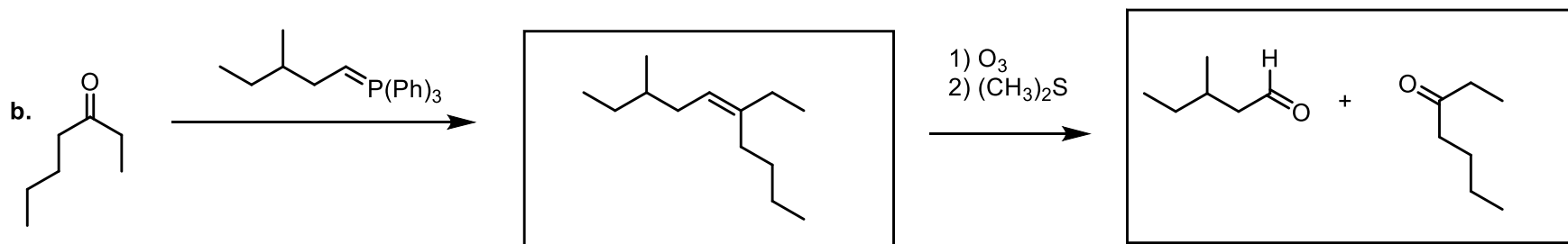
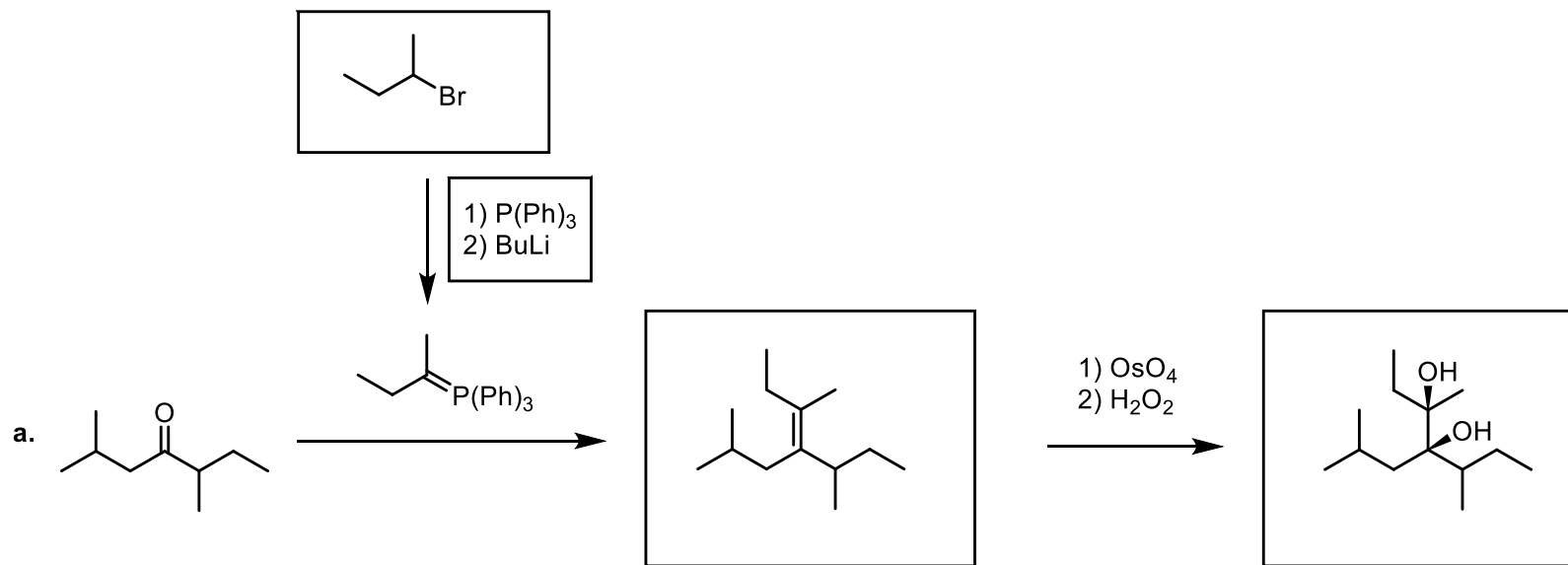
4. Esercizi Wittig – soluzioni



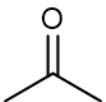
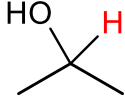
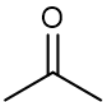
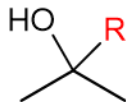
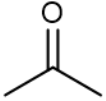
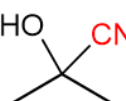
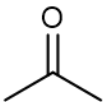
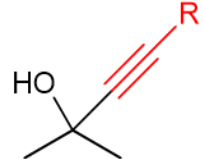
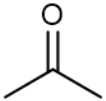
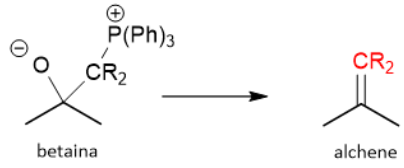
5. Esercizi Wittig



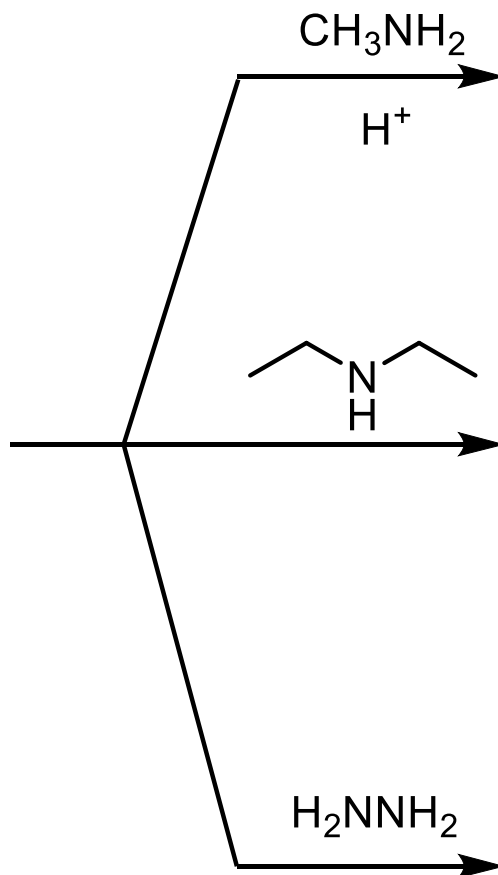
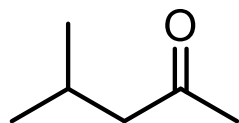
5. Esercizi Wittig – soluzioni



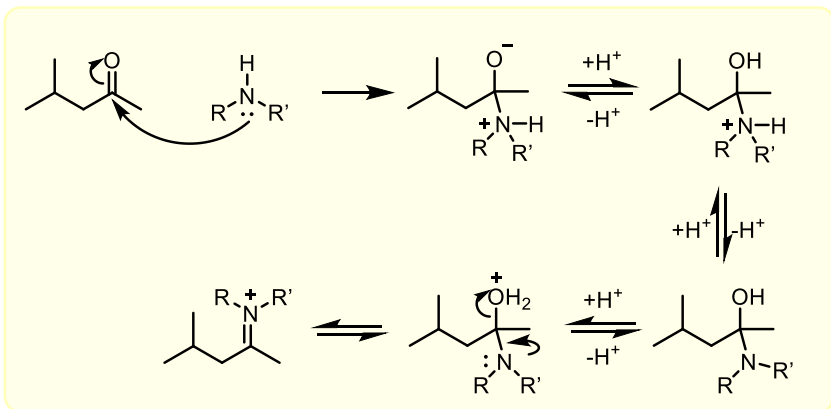
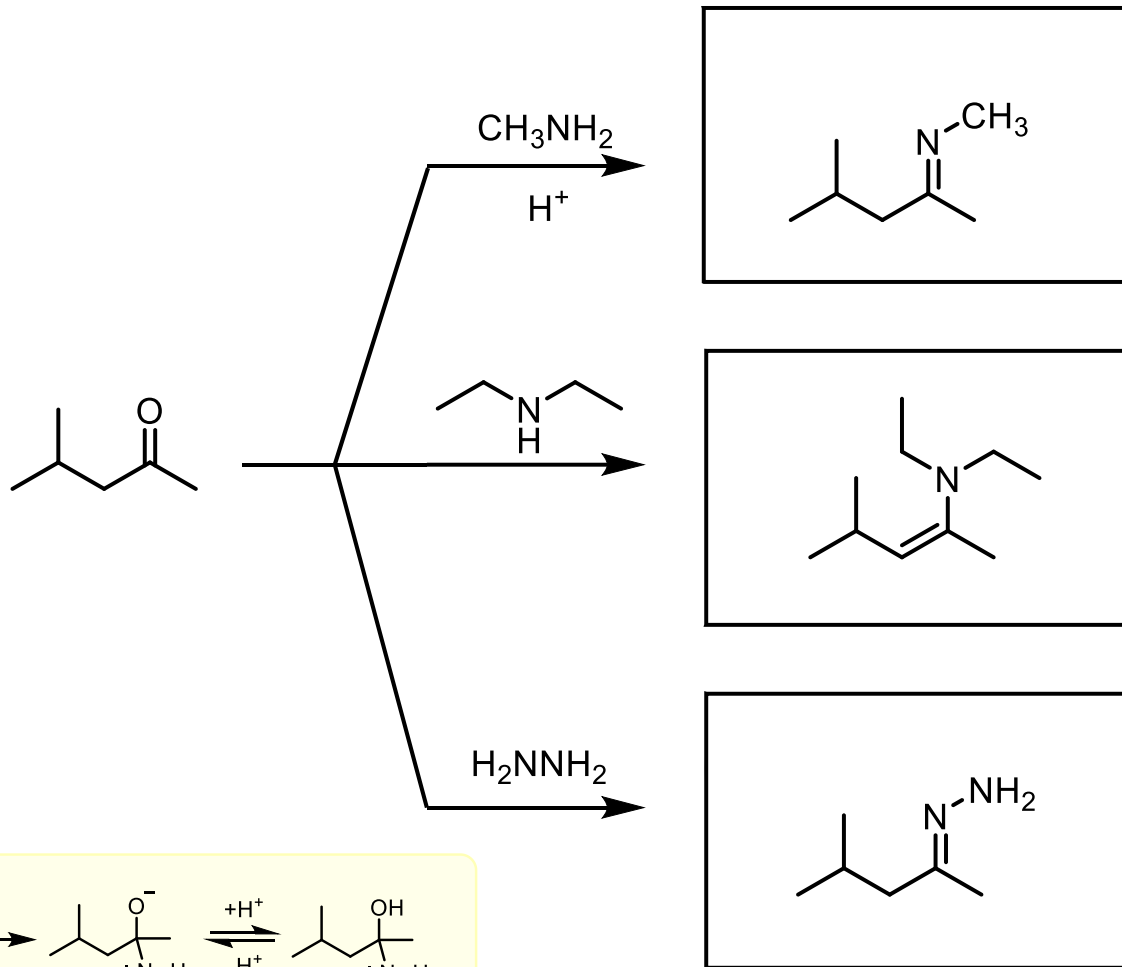
Addizione nucleofila con nucleofili carichi

Elettrofilo	Nucleofilo	Prodotto di addizione
	Ione idruro H^-	 alcol
	Reattivi di Grignard RMgX	 alcol
	Ione cianuro CN^-	
	Ione acetiluro $\text{RC}\equiv\text{C}^-$	 alcol
	Ilide del fosforo (Reazione di Wittig) $(\text{Ph})_3\text{P}^+\text{CR}_2^-$	 betaina \longrightarrow alchene

6. Esercizi nucleofili all'N

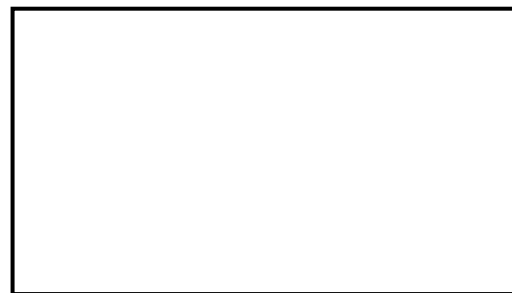
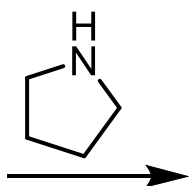
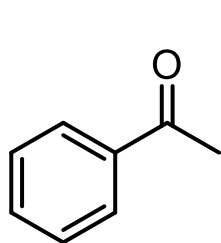


6. Esercizi nucleofili all'N - soluzioni

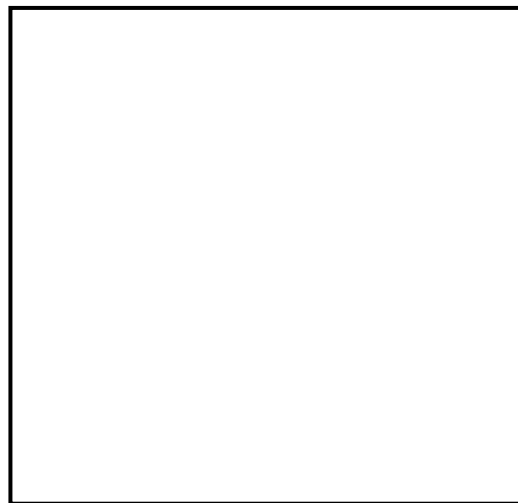
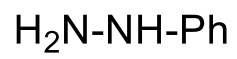
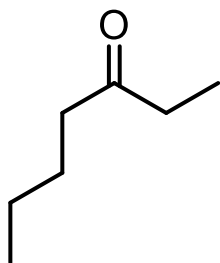


7. Esercizi nucleofili all'N

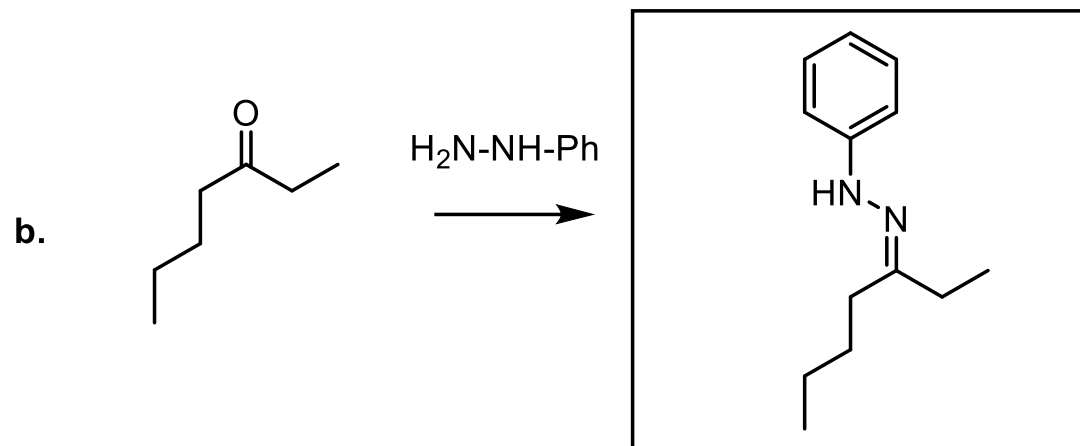
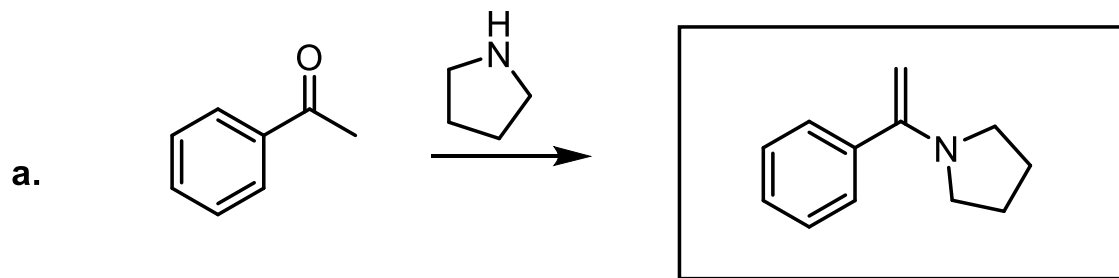
a.



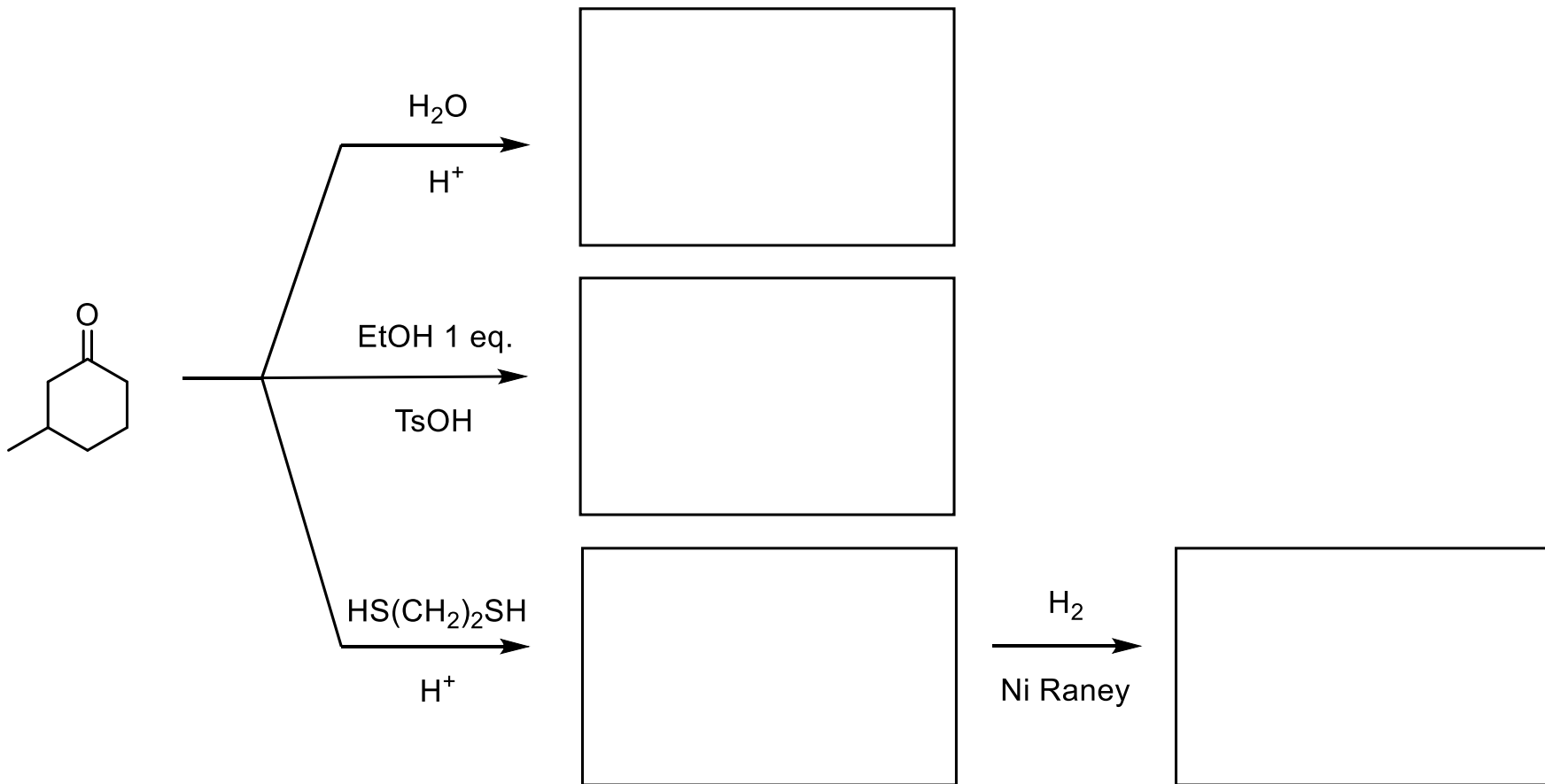
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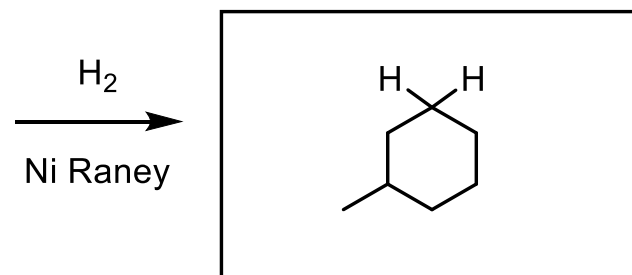
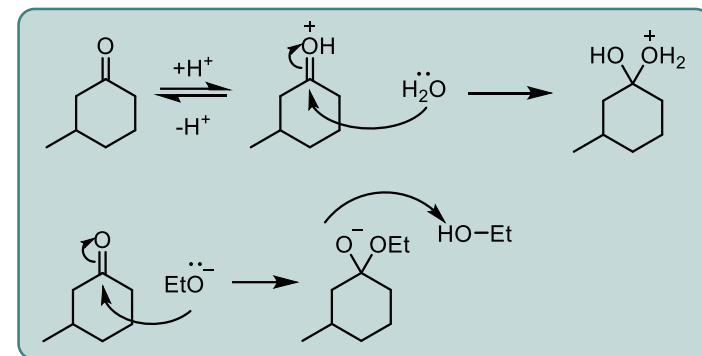
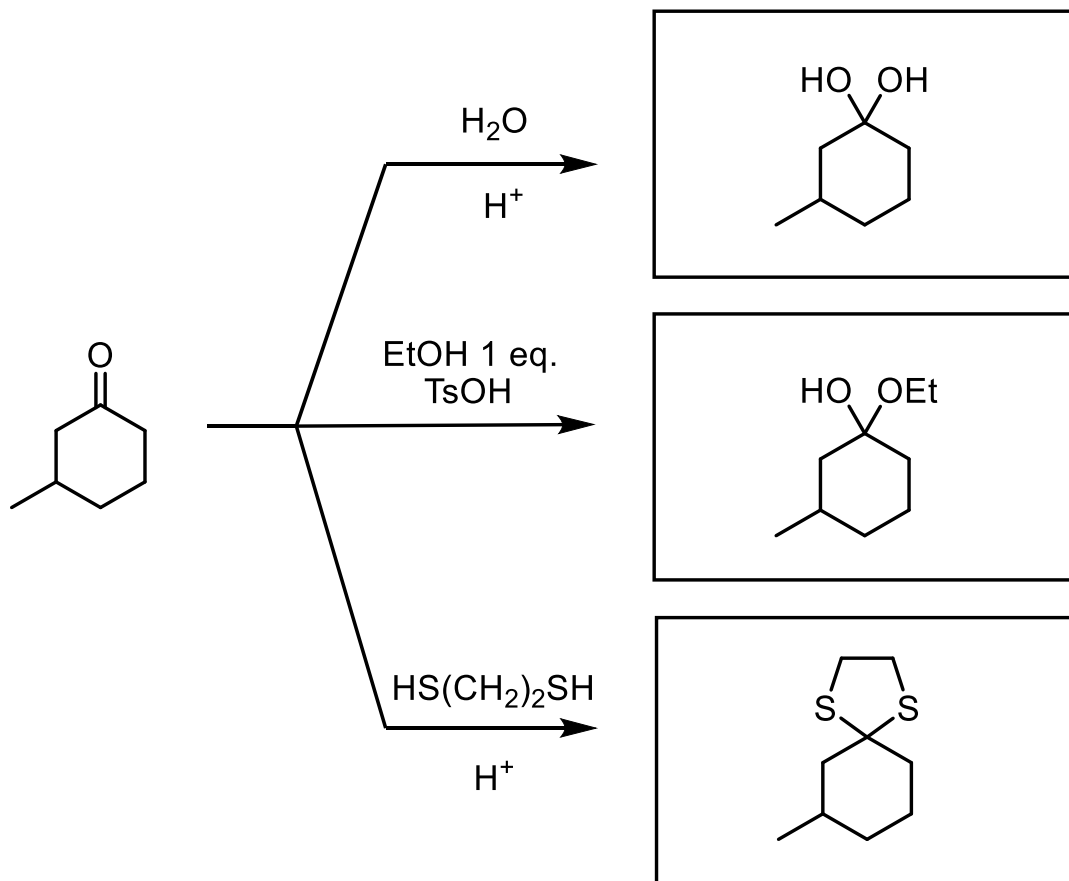
7. Esercizi nucleofili all'N - soluzioni



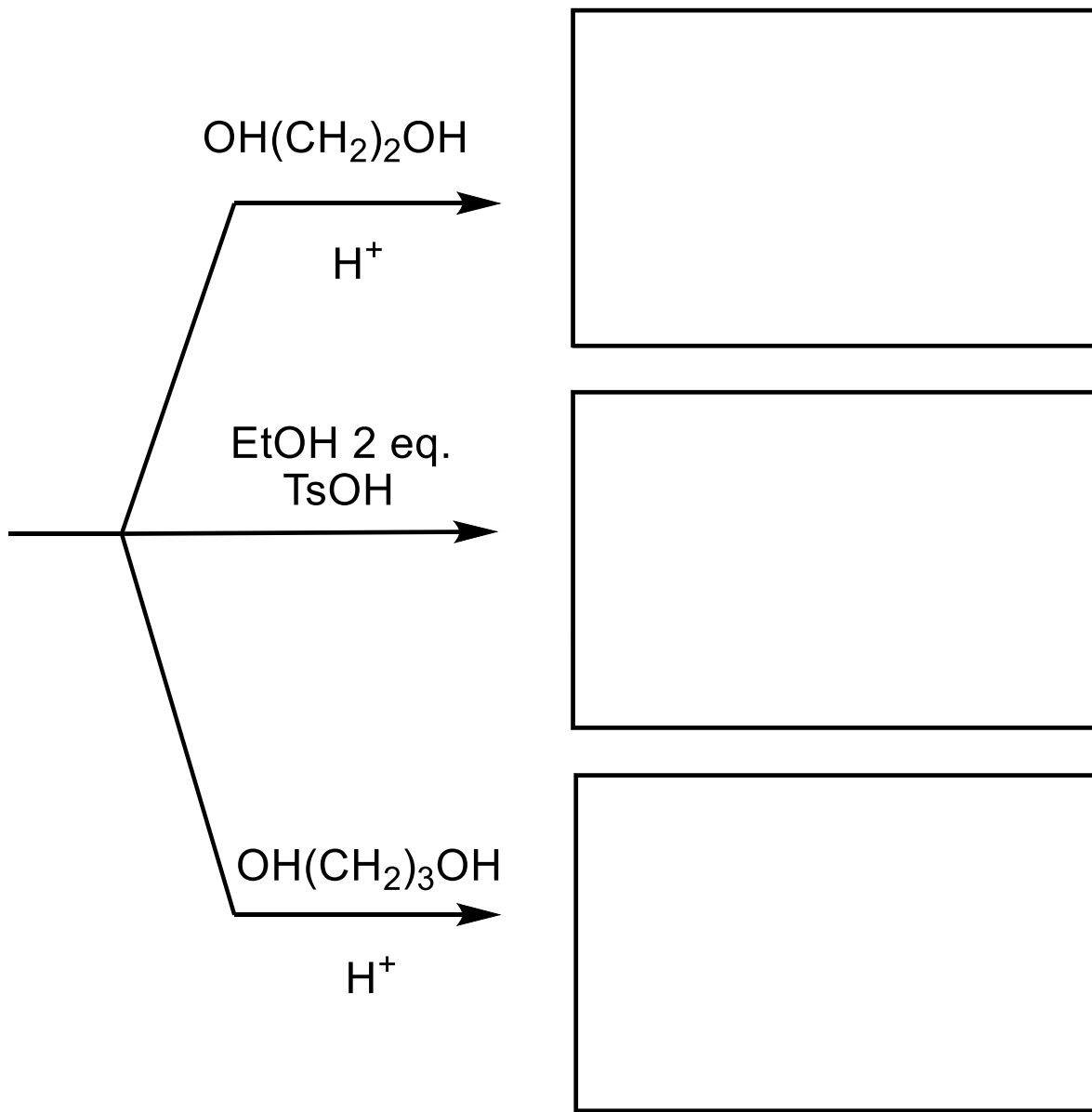
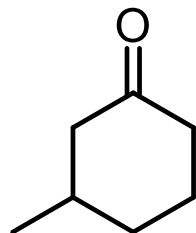
8. Esercizi nucleofili all'O



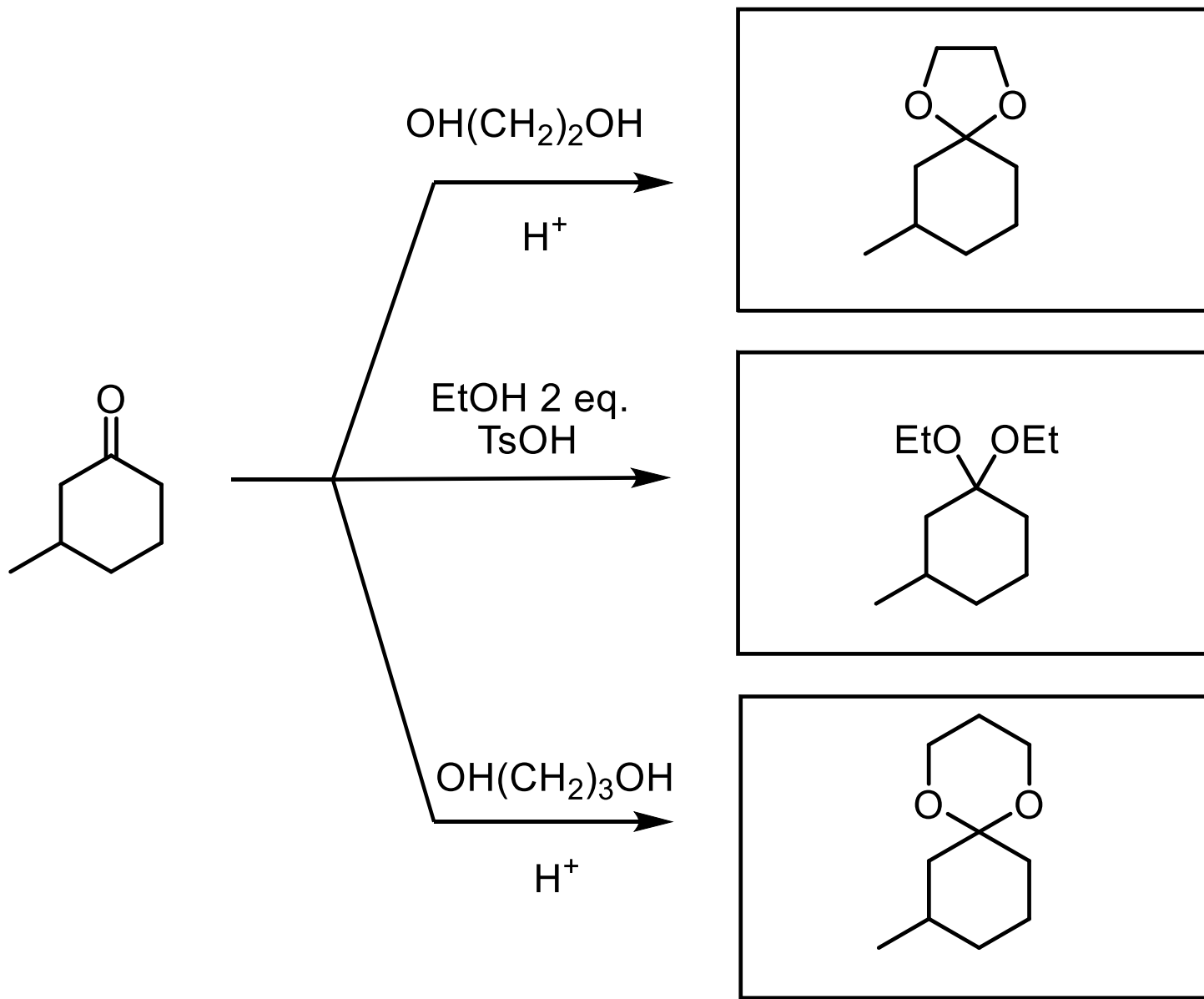
8. Esercizi nucleofili all'O - soluzioni




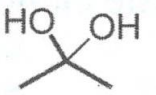


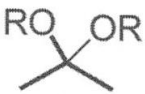

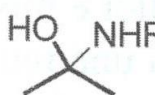
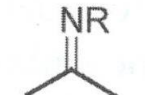

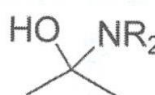
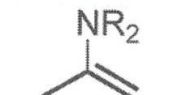
9. Esercizi nucleofili all'O



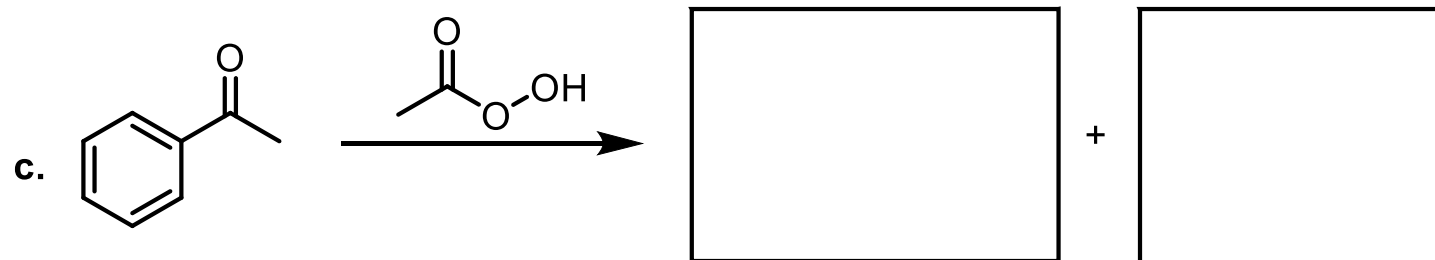
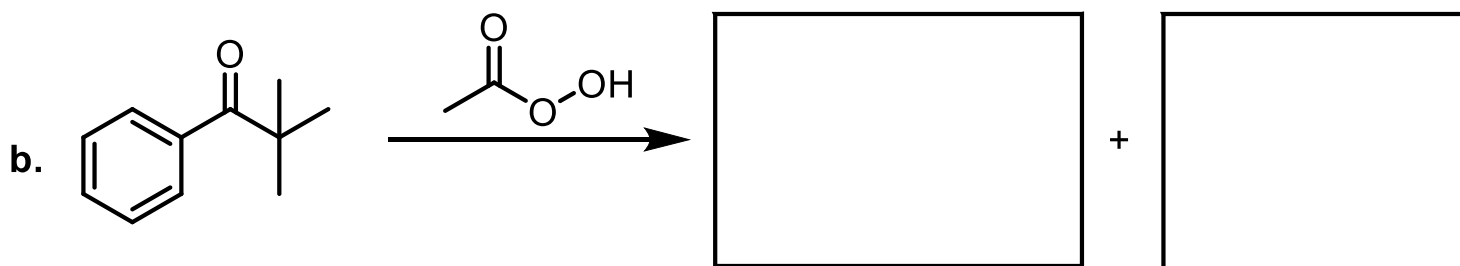
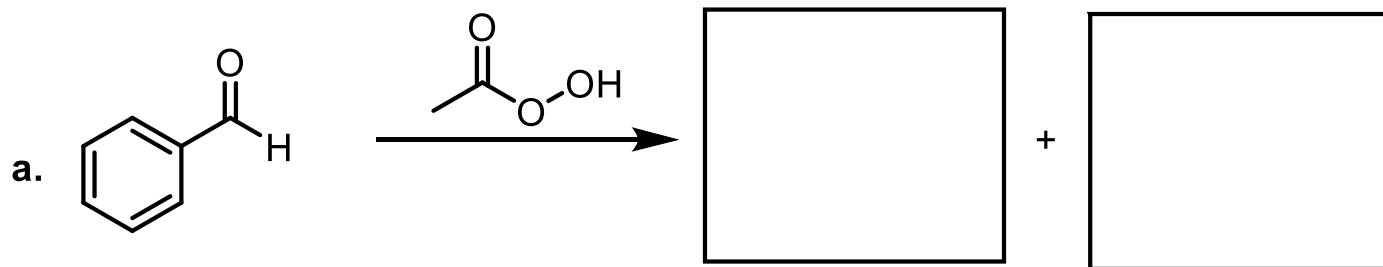
9. Esercizi nucleofili all'O - soluzioni



Addizione nucleofila con nucleofili neutri acido-catalizzata

Elettrofilo	Nucleofilo	Prodotto di addizione	
	$\text{H}_2\text{O}, \text{H}^+$	 <i>gem</i> -diolo	
	ROH, H^+	 $\xrightarrow[\text{- H}_2\text{O}]{\text{+ ROH}}$	 acetale
	RNH_2, H^+	 $\xrightarrow{\text{- H}_2\text{O}}$	 immina
	$\text{R}_2\text{NH}, \text{H}^+$	 $\xrightarrow{\text{- H}_2\text{O}}$	 enammina

10. Esercizi Baeyer-Villiger



10. Esercizi Baeyer-Villiger - soluzioni

