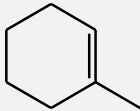
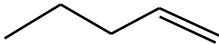
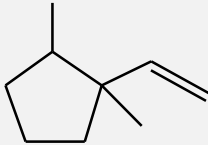
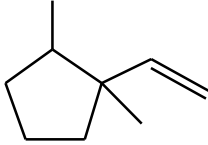
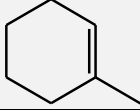
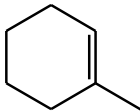
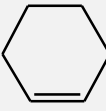
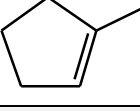
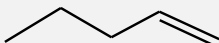
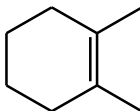
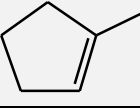
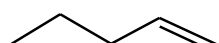


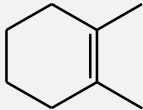
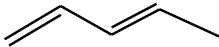



## Alkene Addition Reactions 1

Give the product for each reaction. Do not peek at the answers until you have a reasonable solution. Answers are shown below.

	$\xrightarrow[\text{H}_2\text{SO}_4]{\text{H}_2\text{O}}$	
	$\xrightarrow[\text{H}_2\text{SO}_4]{\text{H}_2\text{O}}$	
	$\xrightarrow[\text{H}_2\text{SO}_4]{\text{H}_2\text{O}}$	
	$\xrightarrow[2. \text{NaBH}_4]{1. \text{Hg}(\text{OAc})_2 / \text{H}_2\text{O}}$	
	$\xrightarrow[2. \text{NaBH}_4]{1. \text{Hg}(\text{OAc})_2 / \text{CH}_3\text{OH}}$	
	$\xrightarrow[2. \text{H}_2\text{O}_2, \text{OH}^-]{1. \text{BH}_3 / \text{THF}}$	
	$\xrightarrow[\text{h}\nu]{\text{NBS}}$	
	$\xrightarrow[\text{CCl}_4]{\text{HBr}}$	
	$\xrightarrow[\text{ROOR}]{\text{HBr}}$	
	$\xrightarrow[\text{CH}_2\text{Cl}_2]{\text{Br}_2}$	
	$\xrightarrow[\text{EtOH}]{\text{Br}_2}$	
	$\xrightarrow[\text{H}_2\text{O}]{\text{Br}_2}$	

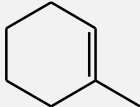
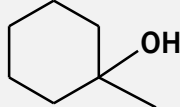
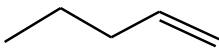
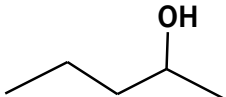
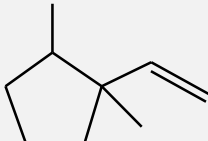
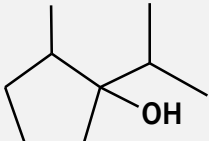
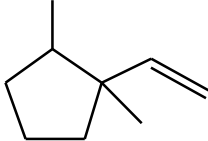
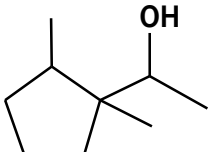
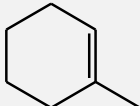
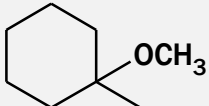
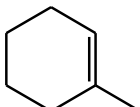
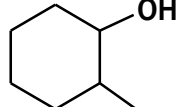
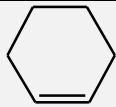
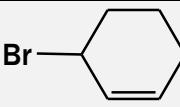
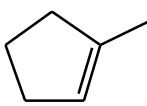
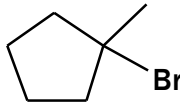
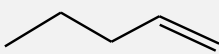
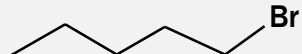
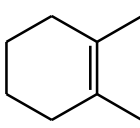
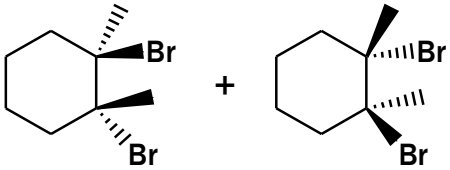
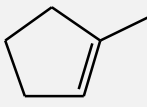
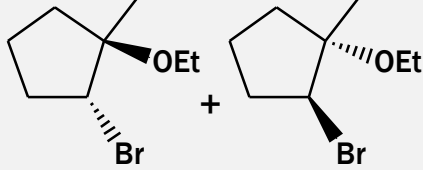
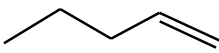
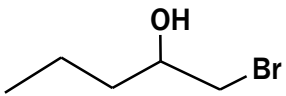
## Alkene Addition Reactions 1

Give the product for each reaction. Do not peek at the answers until you have a reasonable solution. Answers are shown below.

	$\xrightarrow[\text{Pd/EtOH}]{\text{H}_2}$	
	$\xrightarrow[\text{Pd/EtOH}]{\text{H}_2}$	
	$\xrightarrow[\text{Pd/EtOH}]{\text{H}_2}$	
	$\xrightarrow[\text{P-2 cat.}]{\text{H}_2}$	
	$\xrightarrow[\text{NH}_3(\text{liq})]{\text{Na}}$	

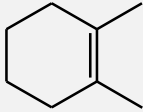
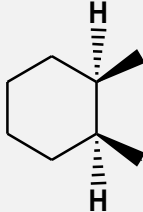
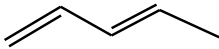
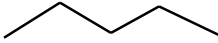

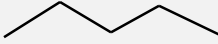

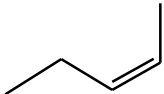

# ANSWER KEY

## Alkene Addition Reactions 1

	$\xrightarrow[\text{H}_2\text{SO}_4]{\text{H}_2\text{O}}$	
	$\xrightarrow[\text{H}_2\text{SO}_4]{\text{H}_2\text{O}}$	
	$\xrightarrow[\text{H}_2\text{SO}_4]{\text{H}_2\text{O}}$	
	$\xrightarrow[2. \text{NaBH}_4]{1. \text{Hg}(\text{OAc})_2 / \text{H}_2\text{O}}$	
	$\xrightarrow[2. \text{NaBH}_4]{1. \text{Hg}(\text{OAc})_2 / \text{CH}_3\text{OH}}$	
	$\xrightarrow[2. \text{H}_2\text{O}_2, \text{OH}^-]{1. \text{BH}_3 / \text{THF}}$	
	$\xrightarrow[\text{h}\nu]{\text{NBS}}$	
	$\xrightarrow[\text{CCl}_4]{\text{HBr}}$	
	$\xrightarrow[\text{ROOR}]{\text{HBr}}$	
	$\xrightarrow[\text{CH}_2\text{Cl}_2]{\text{Br}_2}$	
	$\xrightarrow[\text{EtOH}]{\text{Br}_2}$	
	$\xrightarrow[\text{H}_2\text{O}]{\text{Br}_2}$	

## ANSWER KEY

### Alkene Addition Reactions 1

	$\xrightarrow[\text{Pd/EtOH}]{\text{H}_2}$	
	$\xrightarrow[\text{Pd/EtOH}]{\text{H}_2}$	
	$\xrightarrow[\text{Pd/EtOH}]{\text{H}_2}$	
	$\xrightarrow[\text{P-2 cat.}]{\text{H}_2}$	
	$\xrightarrow[\text{NH}_3(\text{liq})]{\text{Na}}$	