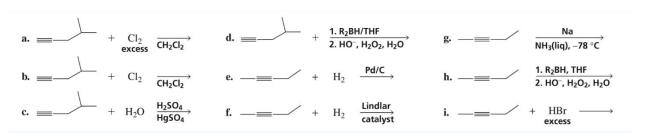
1. What product does each reaction create?



2. Show what reagents/reactants should be used to go from the reactant to the desired product:

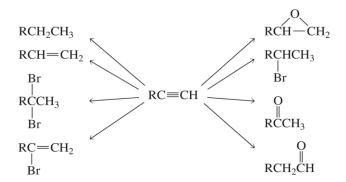
a.
$$HC = CH \longrightarrow CH_3CH_2CH_2CH_2CCH_3$$

$$\mathbf{d.} \quad \bigcirc C \equiv \text{CH} \quad \longrightarrow \quad \bigcirc \begin{matrix} \text{O} \\ \parallel \\ -\text{CH}_2\text{CH} \end{matrix}$$

e.
$$C \equiv CH \longrightarrow CCH_3$$

$$\mathbf{f.} \quad \bigcirc C = \mathbf{CCH_3} \quad \longrightarrow \quad \bigcirc \mathbf{CH_3}$$

3. What reagents and solvents should be used to create each product?



4. What reagents and solvents should be used with Acetylene as the starting reactant to create each product below:

