

MATCH THE CORRECT NAME OF TEST AND COMPOUND WITH THE CORRECT EQUATION.

$ \begin{array}{c} \text{H} & & \text{H} \\ & \backslash & / \\ & \text{C} = \text{C} \\ & / & \backslash \\ \text{H} & & \text{H} \end{array} + \text{Br}_2 \xrightarrow{\text{CH}_2\text{Cl}_2} \begin{array}{c} \text{H} & \text{H} \\ & \\ \text{H}-\text{C}- & \text{C}-\text{H} \\ & \\ \text{Br} & \text{Br} \end{array} $	
$\begin{array}{c} \text{OH} \\ \\ \text{C}_6\text{H}_5 \end{array} \xrightarrow{\text{FeCl}_3 (\text{aq})} \begin{array}{c} \text{OH} \\ \\ \text{C}_6\text{H}_5 \end{array} \text{FeCl}_3$ Purple complex	
$ \begin{array}{c} \text{H} & & \text{H} \\ & \backslash & / \\ & \text{C} = \text{C} \\ & / & \backslash \\ \text{H} & & \text{H} \end{array} + \text{Br}_2 \xrightarrow{\text{H}_2\text{O}} \begin{array}{c} \text{H} & \text{H} \\ & \\ \text{H}-\text{C}- & \text{C}-\text{H} \\ & \\ \text{Br} & \text{OH} \end{array} $	
$ \begin{array}{c} \text{R} & & \text{R} \\ & \backslash & / \\ & \text{C} = \text{C} \\ & / & \backslash \\ \text{H} & & \text{H} \end{array} \xrightarrow[\text{cold}]{\text{KMnO}_4, \text{OH}^-} \begin{array}{c} \text{OH} & \text{OH} \\ & \\ \text{R}-\text{C}- & \text{C}-\text{R} \\ & \\ \text{H} & \text{H} \end{array} + \text{MnO}_2 $	
$\begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{CH}_3 \end{array} \xrightarrow{\text{I}_2, \text{OH}^-} \begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{O}^- \end{array} + \text{CHI}_3 (\text{s})$ Carboxylate ion Yellow precipitate	
$\text{CH}_3(\text{CH}_2)_4\text{OH} \xrightarrow{\text{ZnCl}_2, \text{HCl}^{\text{conc.}}} \text{No Observable change}$ primary No cloudy solution within 10 minutes $\begin{array}{c} \text{OH} \\ \\ \text{CH}_3\text{CH}_2\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_3 \end{array} \xrightarrow{\text{ZnCl}_2, \text{HCl}^{\text{conc.}}} \begin{array}{c} \text{Cl} \\ \\ \text{CH}_3\text{CH}_2\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_3 \end{array}$ secondary Cloudy within 5-10 minutes $\begin{array}{c} \text{OH} \\ \\ \text{CH}_3\text{C}(\text{CH}_3)_2\text{CH}_2\text{CH}_2\text{CH}_3 \end{array} \xrightarrow{\text{ZnCl}_2, \text{HCl}^{\text{conc.}}} \begin{array}{c} \text{Cl} \\ \\ \text{CH}_3\text{C}(\text{CH}_3)_2\text{CH}_2\text{CH}_2\text{CH}_3 \end{array}$ tertiary Cloudy immediately	



