

As	K	
Fr	A	N
C	He	M

AQA

## A Level Chemistry

Reactions of

## Alkanes and Alkenes

Complete and balance the following chemical equations

- a)  $\text{CH}_3(\text{CH}_2)_3\text{CH}_3 + 8\text{O}_2 \rightarrow 5\text{CO}_2 + 6\text{H}_2\text{O}$
- b)  $\text{CH}_3\text{CH}(\text{CH}_3)_2 + \text{Cl}_2 \rightarrow \text{CH}_2\text{ClCH}(\text{CH}_3)_2 \text{ or } \text{CH}_3\text{CCl}(\text{CH}_3)_2 \text{ or } \text{CH}_3\text{CH}(\text{CH}_2\text{Cl})(\text{CH}_3) + \text{HCl}$
- c)  $\text{CH}_3\text{CHCHCH}_3 + \text{Br}_2 \rightarrow \text{CH}_3\text{CHBrCHBrCH}_3$
- d)  $\text{CH}_3\text{CHCH}_2 + \text{H}_2\text{O(g)} \rightarrow \text{CH}_3\text{CH}_2\text{CH}_2\text{OH and CH}_3\text{CHOHCH}_3$
- e)  $\text{CH}_3\text{CH}_2\text{CHCH}_2 + \text{Br}_2 \rightarrow \text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{Br and CH}_3\text{CH}_2\text{CHBrCH}_3$
- f)  $\text{CH}_3(\text{CH}_2)_{15}\text{CH}_3 \rightarrow \text{CH}_3(\text{CH}_2)_{12}\text{CH}_3 + \text{CH}_3\text{CHCH}_2$
- g)  $\text{CH}_3\text{CH}_3 + \text{Br}_2 \rightarrow \text{CH}_3\text{CH}_2\text{Br} + \text{HBr}$
- h) Propene reacts with HBr to form bromopropane. The reactant is propene ( $\text{CH}_3\text{CH}=\text{CH}_2$ ). The reagent is HBr. The product is bromopropane ( $\text{CH}_3\text{CH}(\text{Br})\text{CH}_3$ ), shown as a three-carbon chain with a bromine atom attached to the middle carbon.

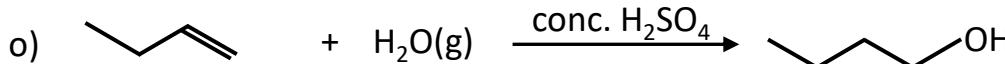
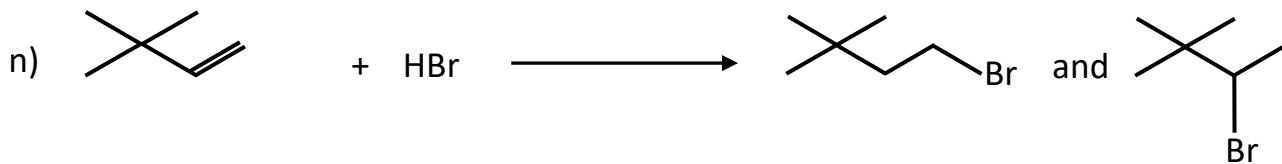
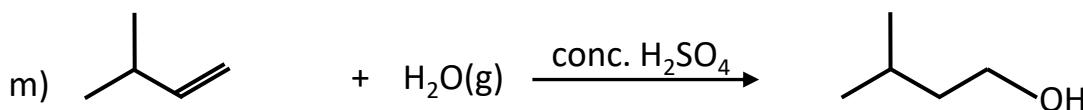
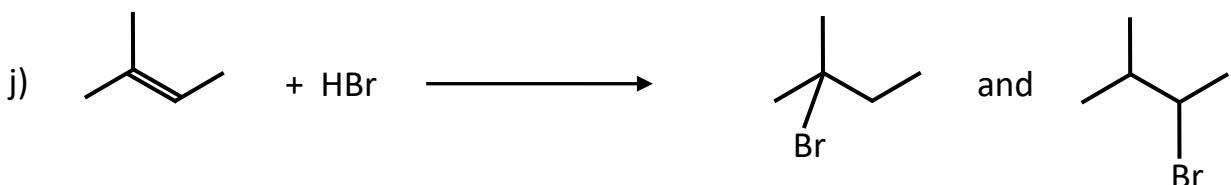
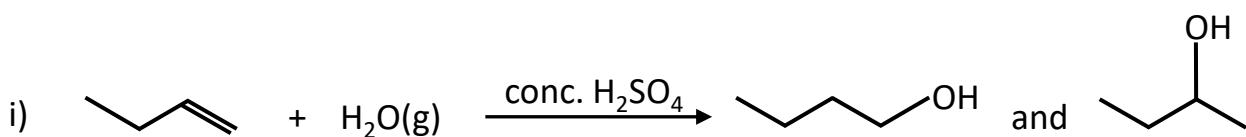
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