

31 Which type of reaction takes place when methane reacts with chlorine in the presence of ultraviolet light?

- A** addition
- B** cracking
- C** polymerisation
- D** substitution

34 What is the **total** number of covalent bonds in one molecule of propane?

- A** 8
- B** 9
- C** 10
- D** 11

35 Ethane reacts with chlorine in the presence of ultraviolet light.

Which products are formed?

- A** $\text{ClCH}_2\text{CH}_2\text{Cl}$ and H_2
- B** $2\text{CH}_3\text{Cl}$ and H_2
- C** $\text{C}_2\text{H}_5\text{Cl}$ and HCl
- D** $\text{CH}_2=\text{CH}_2$ and 2HCl

35 Compound W is a hydrocarbon that contains single bonds only.

Which homologous series contains W?

- A** alkenes
- B** alkanes
- C** carboxylic acids
- D** alcohols