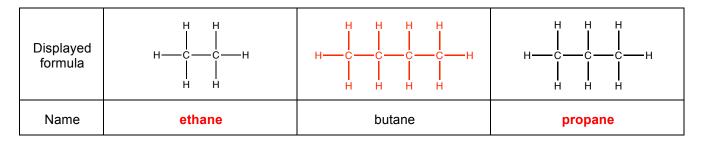


1 Complete this table with the names and structures of some alkanes.



- 2 Define the following terms.
 - a hydrocarbon compound containing hydrogen and carbon only
 - b saturated contains no double bond(s)
- 3 Hexane is an alkane containing 6 carbon atoms. Give its molecular formula. C₆H₁₄
- 4 Complete the table (using a \checkmark in the relevant boxes) to compare two alkanes.

	most flammable	highest boiling point	most viscous	burns with cleanest flame
pentane (C ₅ H ₁₂)	✓			✓
octane (C ₈ H ₁₈)		✓	✓	

5 a Write a balanced equation for the complete combustion of pentane (C_5H_{12}) .

 $C_5H_{12} + 8O_2 \rightarrow 5CO_2 + 6H_2O$

b Write a balanced equation for the incomplete combustion of pentane (C_5H_{12}) to form carbon monoxide.

 $C_5H_{12} + \frac{11}{2}O_2 \rightarrow 5CO + 6H_2O$ or $2C_5H_{12} + 11O_2 \rightarrow 10CO + 12H_2O$