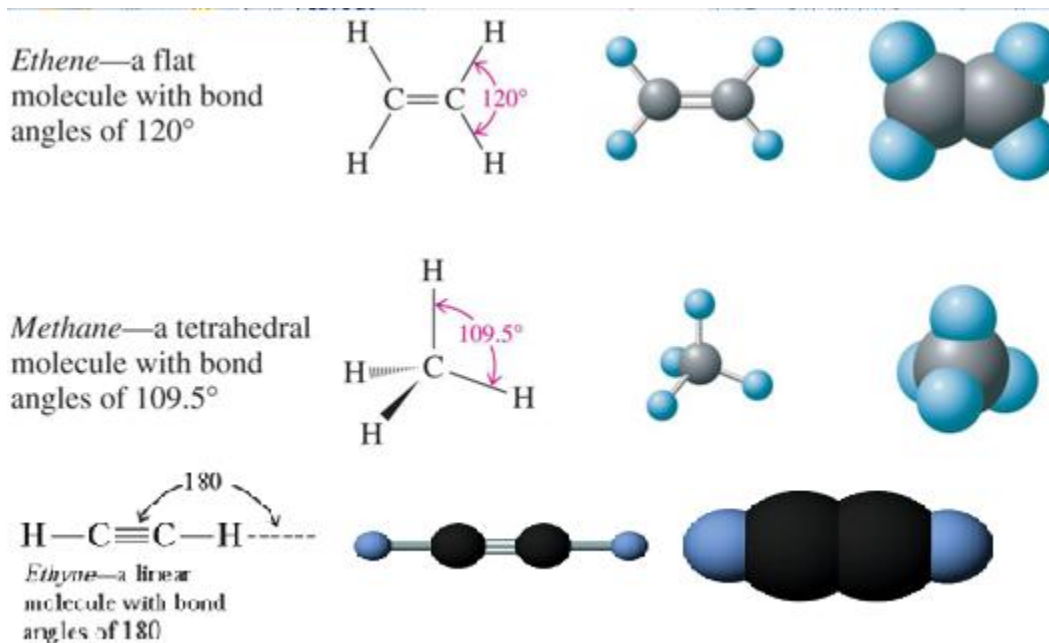


Test 1. Allowed Material



| Molecular Formula | Possible Number of Isomers |
|--------------------------------|----------------------------|
| CH ₄ | 1 |
| C ₂ H ₆ | 1 |
| C ₃ H ₈ | 1 |
| C ₄ H ₁₀ | 2 |
| C ₅ H ₁₂ | 3 |
| C ₆ H ₁₄ | 5 |
| C ₇ H ₁₆ | 9 |
| C ₈ H ₁₈ | 18 |
| C ₉ H ₂₀ | 35 |

Unsymmetric Addition Reactions:

Markovnikov's Rule: When an unsymmetrical molecule HQ (e.g., H-Cl, H-OH, H-F) reacts with an unsymmetrical alkene, the hydrogen atom from the HQ becomes attached to the unsaturated carbon atom that already has the most hydrogen atoms