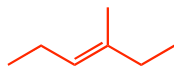


1. The mass spectrum for 2-butanol is shown below. Identify the labelled peaks, either as fragments of the parent or as the fragment itself ($M^+ - R$ or R^+).

Important peaks:

- 74: M^+
- 59: $M^+ - \text{Me}$
- 56: $M^+ - \text{H}_3\text{O}$
- 45: $M^+ - \text{Et}$

2. Draw the structure of (*E*)-3-methyl-3-hexene



3. Draw the mechanism for the following reaction:

