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'- Me
- 56: M'-H₂O
- 45: M'-Et

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

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  H
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H       O
```

3. Draw the mechanism for the following reaction:

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  H₂SO₄, H₂O →  H₂O
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