1. This question is about some of the reactions of ethene, C₂H₄.

Complete the spider diagram by drawing the structures of the products formed.

- Hydrogen with a nickel catalyst at 150°C
- Chlorine, Cl₂
- Bromine, Br₂
- Steam, 300°C, 60 atm, phosphoric acid catalyst
2. **Cover up your answers to question 1.**

Write the reagents and conditions needed for the reactions by writing answers on the arrows. This time, propene is used instead of ethene.

```

```

```

```

```

```
3. This question is about reactions of ethanol, $\text{C}_2\text{H}_5\text{OH}$.

Complete the spider diagram by drawing the structures of the products formed.

- Sodium metal
- Ethanoic acid and an acid catalyst
- Concentrated sulfuric acid or phosphoric acid
- Oxidising agent e.g. acidified potassium manganate(VII) or sodium dichromate(VII)
- Combustion, $\text{O}_2$
4. Cover up your answers to question 3.

Write the reagents and conditions needed for the reactions below by writing answers on the arrows.
This time, propan-1-ol is used instead of ethanol.