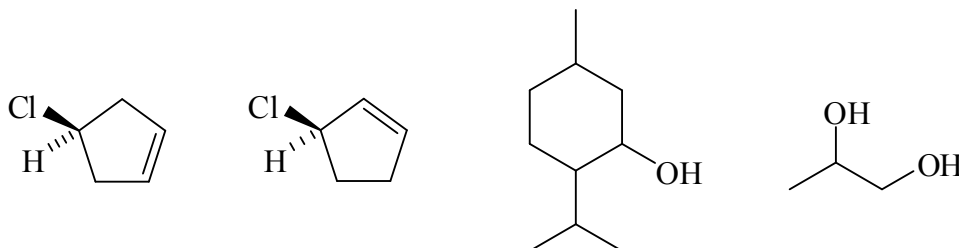
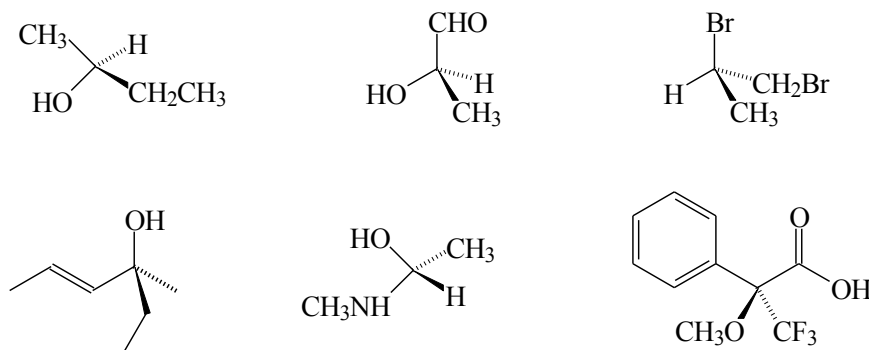


Work through the ChemCAL module "Structural Organic Chemistry"

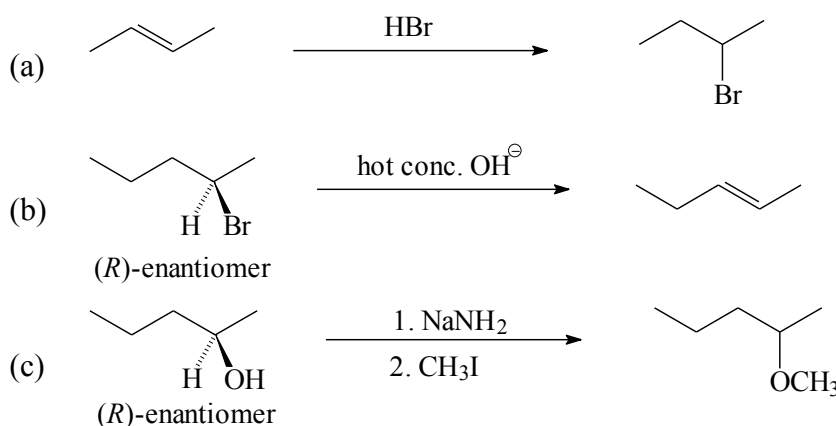
1. Mark each stereogenic centre in the following compounds with an asterisk (*).



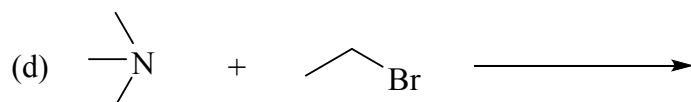
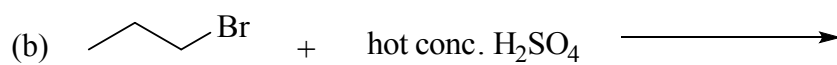
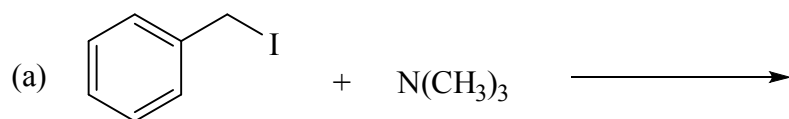
2. Assign absolute configurations (*R*, *S* nomenclature) to the following molecules.



3. Draw a three dimensional structural representation of (3*R*, 5*Z*)-2-methylhept-5-en-3-ol.
4. State whether the product of the following reactions is achiral, the (*R*)-enantiomer, the (*S*)-enantiomer, a *meso*-compound, or a racemic mixture?



5. Draw the constitutional formula of the major organic product formed in the following reactions. If there is no reaction, write "NR".



6. Draw the constitutional formula of the major organic product formed in the following reactions. If there is no reaction, write "NR".

