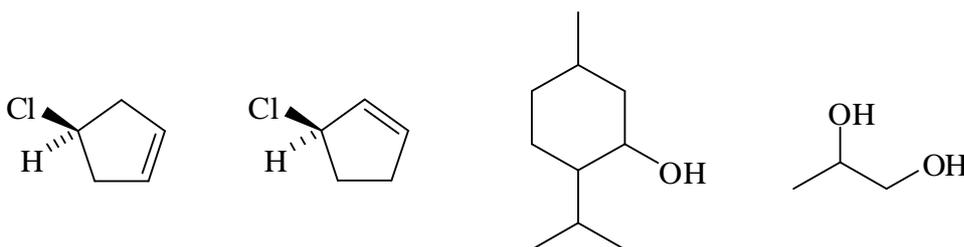




Problem Sheet 5

Work through the ChemCAL module "*Structural Organic Chemistry*"

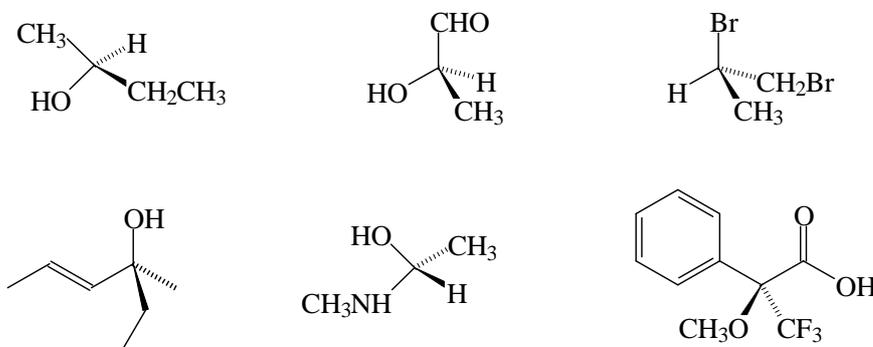
1. Mark each stereogenic centre in the following compounds with an asterisk (*).



2. Draw all of the possible stereoisomers for each of the following compounds.

- (a) 2,4-pentanediol
(b) 2,3,4-pentanetriol

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



4. Draw a three dimensional structural representation of (3*R*, 5*Z*)-2-methylhept-5-en-3-ol.

5. State whether the product of the following reactions is achiral, the (*R*)-enantiomer, the (*S*)-enantiomer, a *meso*-compound, or a racemic mixture?

