Oh No! A Quiz!

In tutorial quiz 2:

- Chemical bonding and molecular shape, determining the number of non-bonding electron pairs (or lone pairs) around atoms.
- Intermolecular forces.
- Acids and Bases, including conjugate acid-base pairs.
- Converting between stick representations and structural formulae, including condensed structural formulae, and be able to work out the molecular formula from these structures. Recall for neutral organic compounds: C (4 bonds, no lone pairs), N (3 bonds, 1 lone pair), O (2 bonds, 2 lone pairs), halogens (1 bond, 3 lone pairs). Hs bonded to C are understood in stick structures!
- Identifying functional groups in condensed structural formulae and the hybridization of the C atoms in these.
  
  Eg  \( \text{CH}_3\text{COOCH}_3, \quad \text{CH}_3\text{CH}_2\text{COCH}_3, \quad \text{CH}_3\text{C}=\text{CH} \)

- Nomenclature of alkanes
- Isomers: constitutional versus stereoisomers (configurational vs. conformational). Recognising pairs of stereoisomers (diastereomers) of alkenes.
- Identification of nucleophiles and electrophiles in electrophilic addition and predicting the major product using Markovnikov's rule/carbocation stability.