**Oh No! A Quiz!**

In tutorial quiz 3 (Week 10), you will need to know:

- The acid base reactions of common functional groups such as amines, alcohols, phenols and carboxylic acids. How these common functional groups react with acidic and basic reagents such as dilute HCl, NaOH, NaHCO₃.

- Simple reactions of alkenes, alkyl halides, alcohols, ketones and other simple functional groups.

- Identify aromatic compounds.

- Identify conjugated molecules and recall that these absorb UV/visible light strongly.

- For a given compound, calculate the \( m/z \) ratio for the parent/molecular ion in the mass spectrum.

- Recall IR absorption frequencies for NH, OH, CH, C=O, C=C, alkynes and nitriles and identify these bands in an IR spectrum. Use these absorptions to identify functional groups in a molecule.

- For a given structure, be able to predict the appearance of the NMR spectrum including: 1) number of signals, 2) relative intensities of those signals and 3) number of fine lines expected for each signal.