1. Write an equation for each of these reactions and name the reaction type. Write no reaction if there is no reaction. [as always with organic reaction, show structural formulae]

   a. butan-1-ol + acidified potassium dichromate(VI) (reflux)

   b. propanal + Fehling’s solution

   c. 2,2-dimethylpropan-1-ol + hot concentrated sulfuric acid

   d. propan-2-ol + acidified potassium dichromate(VI) (reflux)

2. Name and outline the mechanism for the reaction of butan-2-ol with hot, concentrated sulfuric acid to form but-1-ene.

3. Name and outline the mechanism for the reaction of propene with water in the presence of sulfuric acid as catalyst to form propan-2-ol.