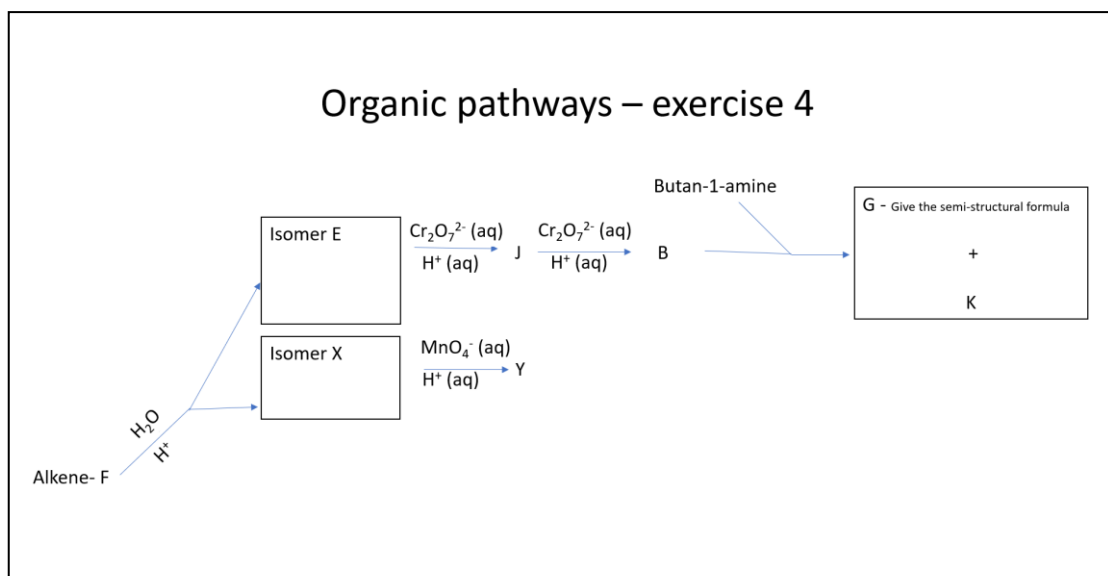
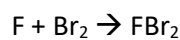


Video worksheet- organic pathways – exercise 4.



1. A 0.0112 gram sample of a pure alkene was dissolved in 20 mL of an appropriate solvent and placed in a conical flask. The sample was then titrated against a 0.0200 M bromine ( $\text{Br}_2$ ) solution until the brown colouration of the bromine solution remained. An average titre of 10.00 mL was recorded. The reaction of the alkene and  $\text{Br}_2$  is shown below.



Identify alkene F.

2. Consider the reaction pathways shown above.
- a. Give the semi- structural formulae of the following compounds

- J \_\_\_\_\_  
 - X \_\_\_\_\_  
 - E \_\_\_\_\_  
 - G \_\_\_\_\_  
 - Y \_\_\_\_\_  
 - B \_\_\_\_\_

- b. i. to what class of compounds does X belong to? \_\_\_\_\_  
 ii. to what class of compounds does E belong to? \_\_\_\_\_

- c. Give the condensed formula of butan-1-amine used to form G

\_\_\_\_\_

- d. Identify the type of reaction that forms:

i. Y \_\_\_\_\_  
 ii. G \_\_\_\_\_  
 iii. E \_\_\_\_\_

- e. Name the class of compounds Y belongs to. \_\_\_\_\_

- f. Identify K \_\_\_\_\_

