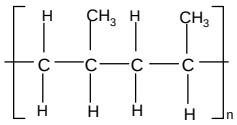
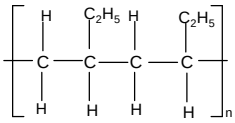
4.9 ANSWERS TO EXERCISES

4.9 Exercise 1

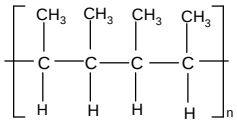
1. a)



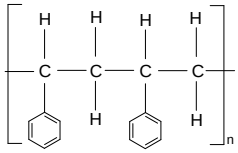
b)



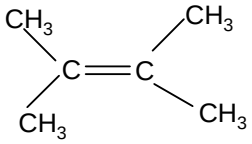
c)



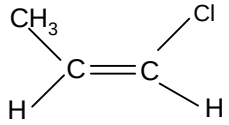
d)



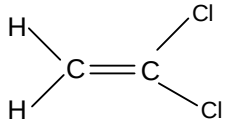
2. a) poly(2,3-dimethylbut-2-ene)



b) poly(1-chloropropene)

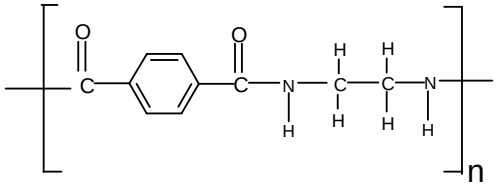


c) poly(1,1-dichloroethene)

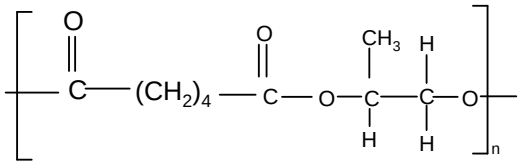


4.9 Exercise 2

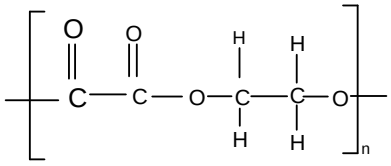
1. a)



b)



c)



2. a) benzene-1,4-diacyl dichloride and ethan-1,2-diol
   b) hexanediacyl dichloride and 1,6-diaminohexane
   c) benzene-1,3-dicarboxylic acid and propan-1,2-diol
   d) ethanediacyl dichloride and 1,2-diaminoethane

3. a) Condensation polymers are biodegradable, but addition polymers are not.
   b) Condensation polymers have a shorter lifetime than addition polymers, but can be much more easily recycled as they can be broken down into their monomers quite easily.