

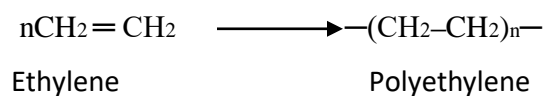


## POLYMERS

### INTRODUCTION:

Polymers are materials of very high molecular weight that have many applications in the modern society. Polymers are obtained through the combination of small molecules called monomers.

For example, polyethylene is formed from the monomer ethylene

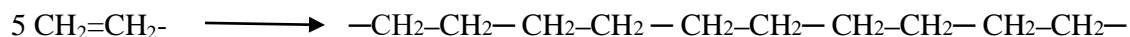


### Degree of polymerization

The number of repeating units present in a polymer is called degree of polymerisation

$$\text{Degree of polymerization: } \frac{\text{Molecular weight of the Polymeric Network}}{\text{Molecular weight of the repeating Unit}}$$

Here n is the degree of polymerization.



In this example, five repeating units are present in the polymer chain, So the degree of polymerization is 5

Polymer with Low degree of Polymerization are known as oligo polymers, their molecular weight ranges from 500- 5000

Polymer with high degree of Polymerization is known as High polymers, their molecular weight ranges from 10,000 – 2.00.000.