

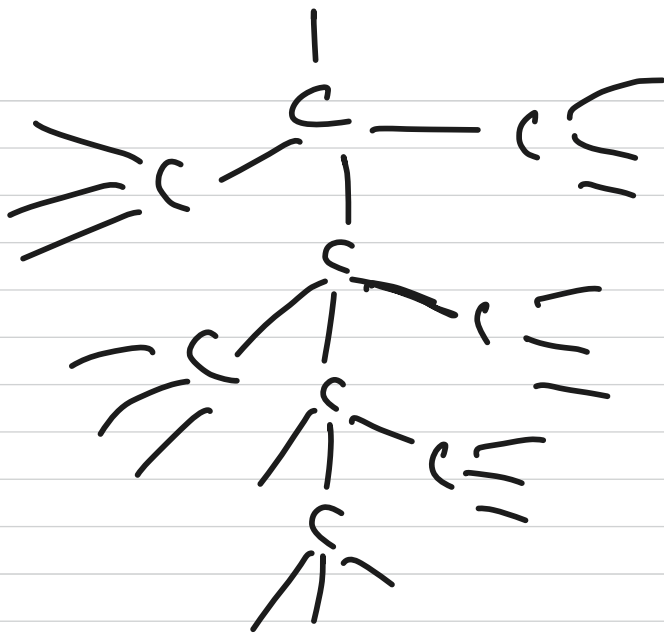
## allotropy of carbon:-



1. Diamond

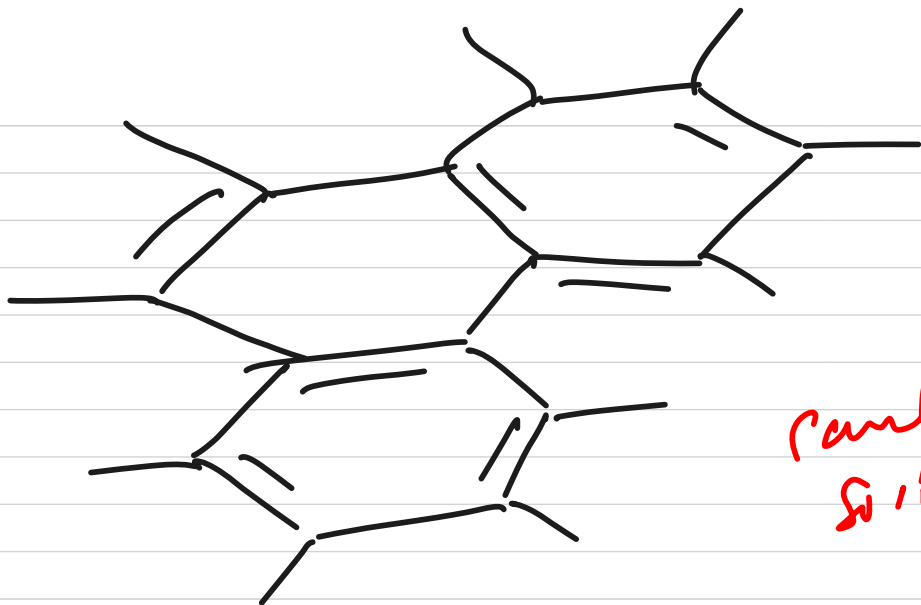
2. Graphite

3. Fullerene

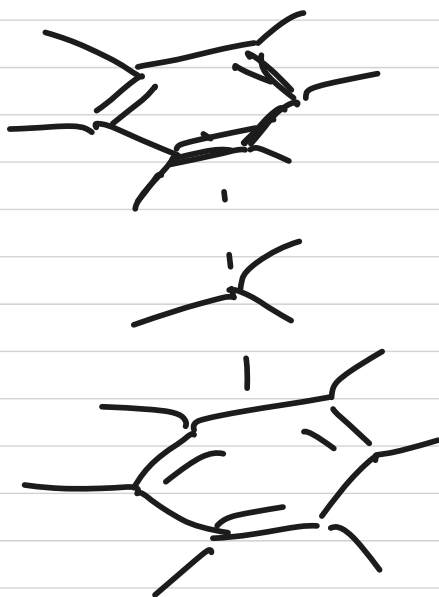


could  
said

abracave



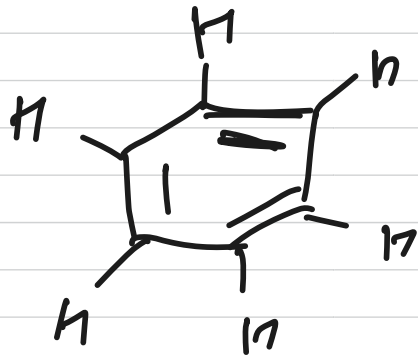
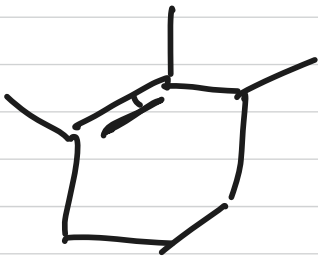
\* Lubricant



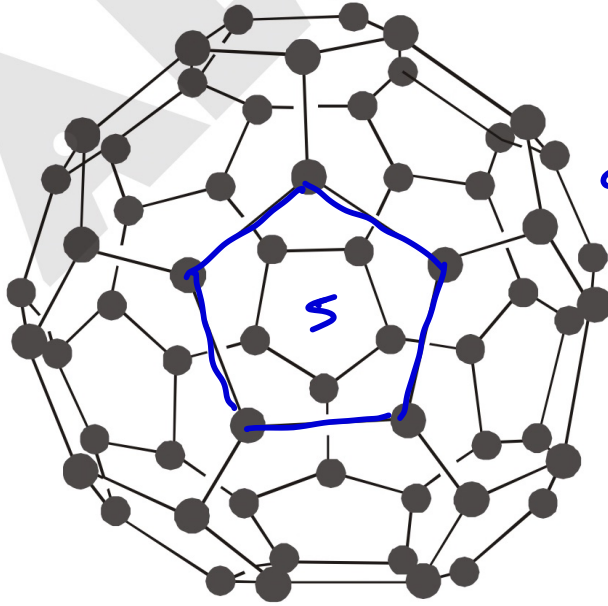
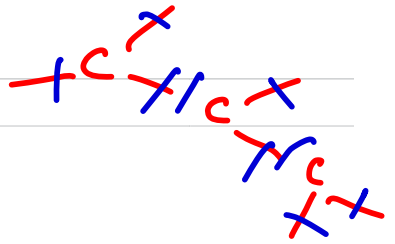
Diamond      graphite      Benzene

C-C bond

diamond > graphite > Benzene



no of  $\sigma$  bonds =



$$\sigma = \frac{60 \times 3}{2} = 90$$

$$\pi = \frac{60}{2} = 30$$

Structure of  $C_{60}$ , Buckminsterfullerene : Note that molecule has the shape of a soccer ball

$C_{60}$

$$V = 60$$

$$F = 32 \text{ (12 Pentag, 20 hexag)}$$

$$E = 90$$

\* all fullerenes 12 pentagonal  
faces

$$V + F = E + 2$$

