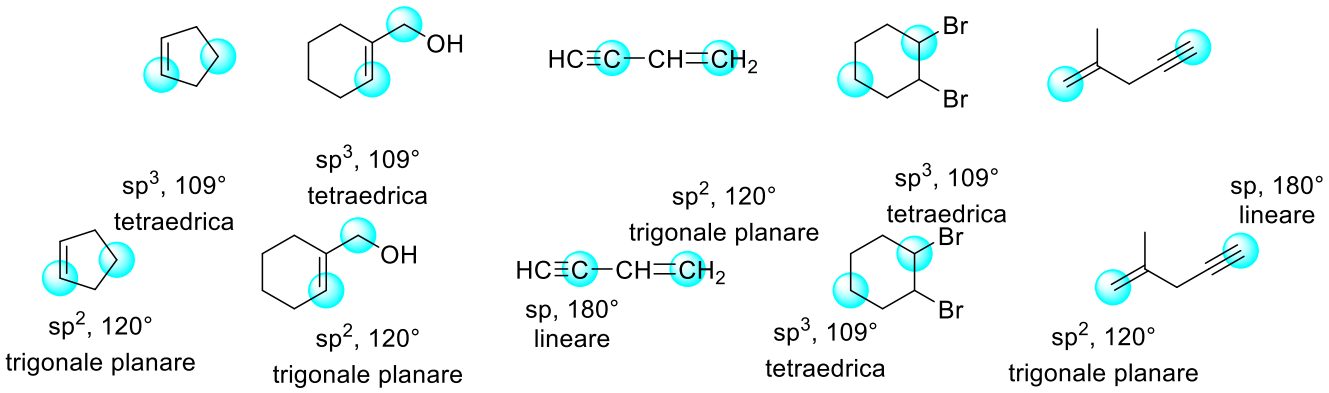
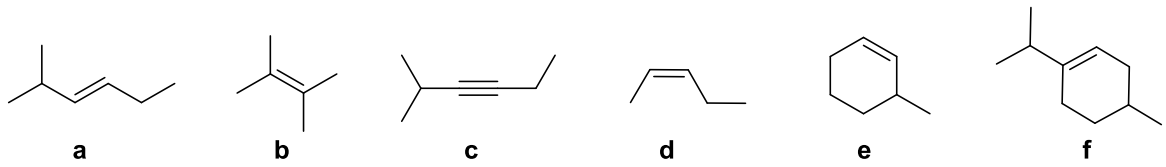
1) Indicare ibridizzazione, angolo di legame e la geometria dei carboni indicati:

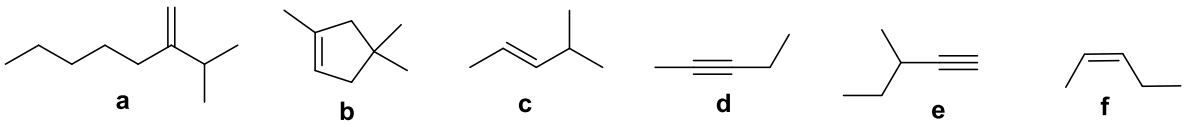


2) Disegnare le formule di struttura dei seguenti composti:

a) *trans*-2-Metil-3-esene
b) 2,3-Dimetil-2-butene
c) 2-Metil-3-esino
d) *cis*-2-Pentene
e) 3-Metilcicloesene
f) 1-Isopropil-4-metilcicloesene



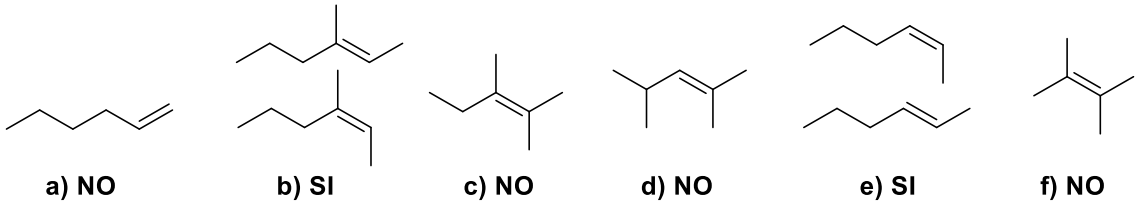
3) Scrivere i nomi IUPAC dei seguenti composti



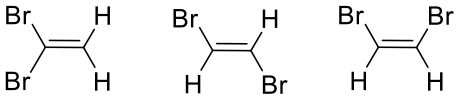
a) 2-Isopropil-1-eptene
b) 1,4,4-Trimetil-1-ciclopentene
c) *trans*-4-metil-2-pentene
d) 2-pentino
e) 3-metil-1-pentino
d) cis-2-pentene

4) Quale dei seguenti alcheni esiste come coppia di isomeri cis/trans

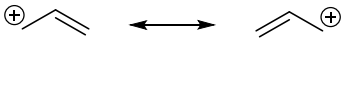
a) 1-esene
b) 3-Metil-2-esene
c) 2,3-Dimetil-2-pentene
d) 2,4-Dimetil-2-pentene
e) 2-Esene
f) 2,3-Dimetil-2-butene



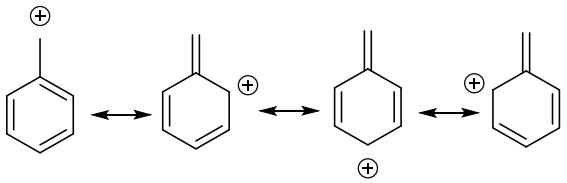
5) Ci sono tre composti di formula molecolare $C_2H_2Br_2$. Disegnare le tre strutture.



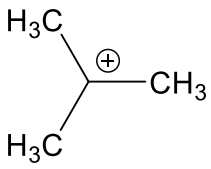
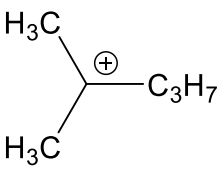
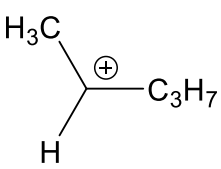
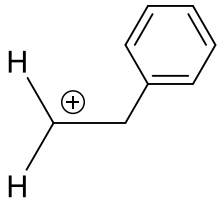
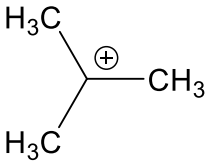
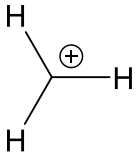
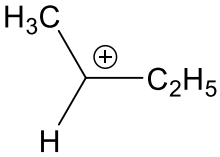
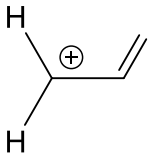
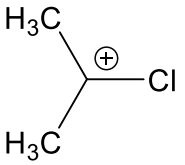
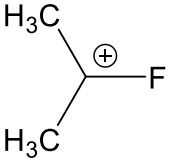
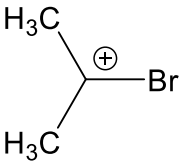
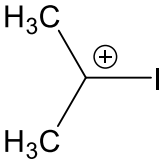
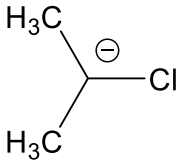
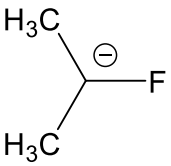
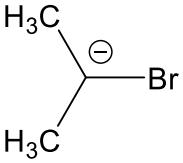
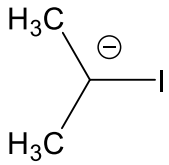
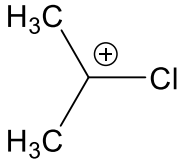
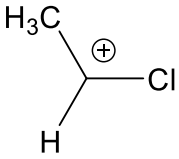
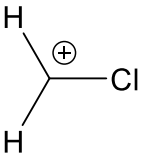
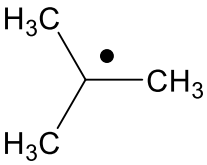
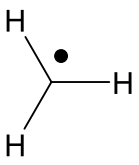
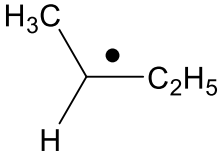
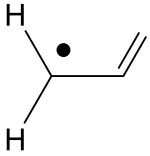
6) Scrivere le forme di risonanza di un catione allilico, di un radicale allilico, di un anione allilico e di un catione benzilico



eguali per anione e radicale



7) Classificare questi composti per ordine crescente di stabilità

A	B	C	D	
				D < C < A = B
				B < C = D < A
				B < A < C < D
				D < C < A < B
				C < B < A
				B < C < A < D

8) Disegnare il prodotto maggioritario delle seguenti reazioni