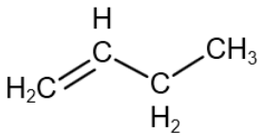
Isomer alkANA hanya isomer STRUKTUR RANGKA
Isomer alkENA hanya isomer struktur (rangka, posisi, fungsi) dan isomer ruang (geometri)
Isomer alkUNA hanya isomer struktur (rangka , posisi, fungsi)

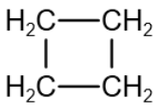
ISOMER ALKENA

C_nH_{2n} dapat berupa ALKENA dan SIKLOALKANA

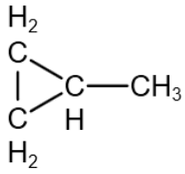
Akena berisomer fungsi dengan siklo alkana
Contoh senyawa **C_4H_8** dapat berupa



but-1-ene



cyclobutane

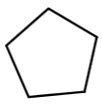


methylcyclopropane

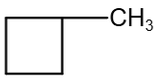
Senyawa C_4H_8 yang bukan alkena adalah siklobutana dan metilsiklopropana

Latihan

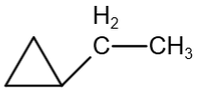
Tuliskan 5 senyawa C_5H_{10} yang bukan alkena
(tuliskan 5 Senyawa dari C_5H_{10} dengan semua ikatan C nya ikatan jenuh)



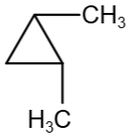
cyclopentane



methylcyclobutane

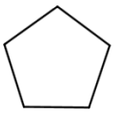


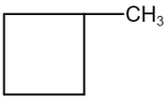
ethylcyclopropane

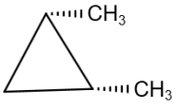


1,2-dimethylcyclopropane

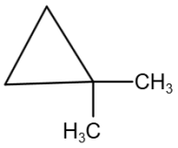
1,1-dimethylcyclopropane

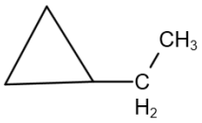


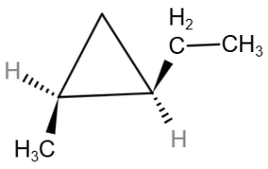




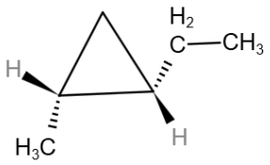
(1R,2S)-1,2-dimethylcyclopropane





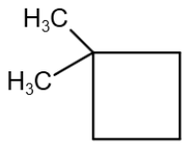


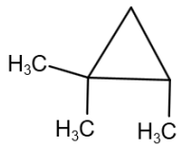
(1R,2S)-1-ethyl-2-methylcyclopropane



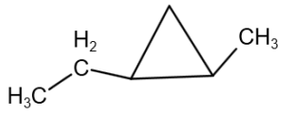
(1S,2R)-1-ethyl-2-methylcyclopropane

Tuliskan 11 senyawa C_6H_{12} yang bukan alkena
(tuliskan 11 Senyawa dari C_6H_{12} dengan semua ikatan C nya ikatan jenuh)

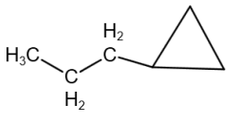


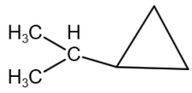


1,1,2-trimethylcyclopropane



1-ethyl-2-methylcyclopropane

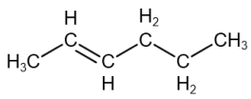


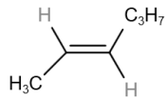


(propan-2-yl)cyclopropane
isopropil siklopropana

Tentukan (gambarkan struktur) senyawa alkena dari C_6H_{12} yang memiliki isomer geometri:

1. 2- heksena





(2E)-hex-2-ene

ALKUNA

Alkuna merupakan senyawa hidrokarbon tak jenuh dengan ikatan rangkap tiga.
Dengan rumus umum (C_nH_{2n-2})

Tata Nama
Bandingkan :

$CH_3 - CH_3$	$CH_2 = CH_2$	$CH \equiv CH$
C_2H_6 etana	C_2H_4 etena	C_2H_2 etuna

Isomer alkUNA hanya isomer struktur (rangka , posisi, fungsi)
Senyawa alkuna adalah senyawa alkana yang kehilangan 4 atom H

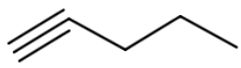
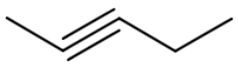
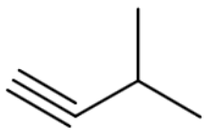
Isomer Pada Alkuna

Isomer struktur pada alkuna bisa terjadi karena perbedaan rangka dan posisi ikatan rangkap 3.
Contoh : Isomer posisi pada C_5H_8

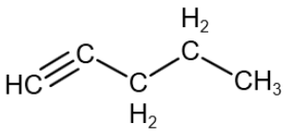
$HC \equiv C - CH_2 - CH_2 - CH_3$
1-pentuna

$CH_3 - C \equiv C - CH_2 - CH_3$
2-pentuna

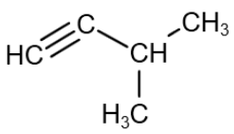
Isomer alkuna dari C_5H_8

1		Isomer posisi : 1 dengan 2 Isomer rangka : 1 dengan 3 Isomer rangka dan posisi : 2 dengan 3
2		
3		

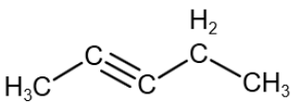
Latihan
1. Tuliskan semua isomer alkuna dari C_5H_8



pent-1-yne

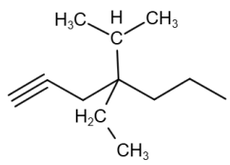


3-methylbut-1-yne

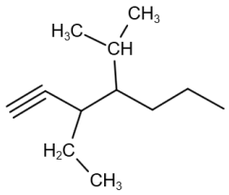


pent-2-yne

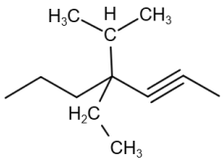
2. Tuliskan 4 isomer alkuna dari $C_{12}H_{22}$ dengan syarat memiliki 1 cabang isopropil dan 1 cabang etil .



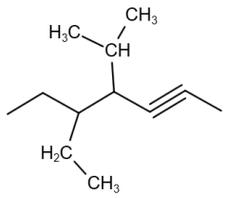
4-ethyl-4-(propan-2-yl)hept-1-yne



3-ethyl-4-(propan-2-yl)hept-1-yne



4-ethyl-4-(propan-2-yl)hept-2-yne

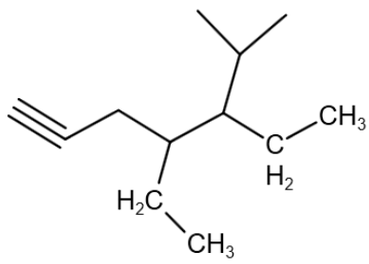


5-ethyl-4-(propan-2-yl)hept-2-yne

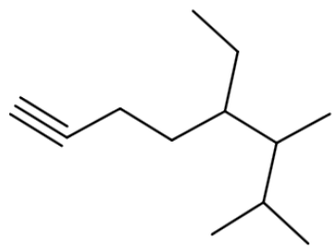
Gugus isopropil dapat dibaca sebagai (2-propanil atau propan-2-yl)

Tuliskan 4 isomer alkuna dari $C_{12}H_{22}$ dengan syarat memiliki 1 cabang isopropil dan 1 cabang etil

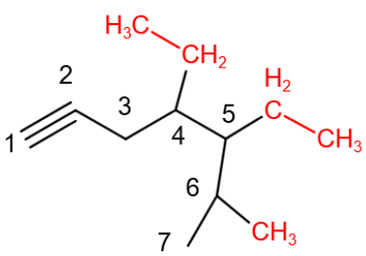
Dibawah ini bukan jawaban yang benar (karena tidak memikiki cabang isopropil)



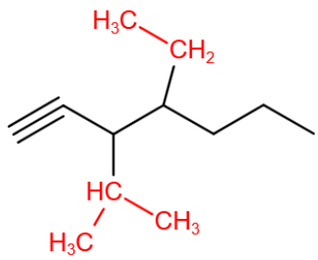
4,5-diethyl-6-methylhept-1-yne



5-ethyl-6,7-dimethyloct-1-yne

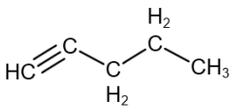


4,5-diethyl-6-methylhept-1-yne

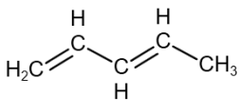


4-ethyl-3-(propan-2-yl)hept-1-yne

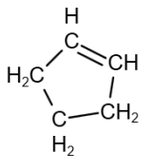
Alkuna berisomer fungsi dengan alkadiena dan sikloalkena
Contoh : senyawa C_5H_8 berisomer dengan 1,3-pentadiena dan siklopentena



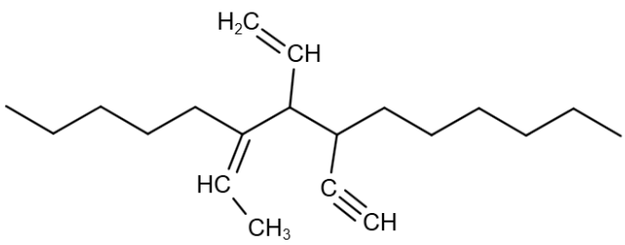
pent-1-yne



(3E)-penta-1,3-diene



cyclopentene



(6Z)-7-ethenyl-6-ethylidene-8-ethynyltetradecane

Gugus etilidena : CH_3-CH= atau =CH-CH_3
Gugus ethenil : CH_2 = CH − atau – CH=CH_2
Gugus ethynyl atau ethunil : CH ≡ C −