



: _____ -1-2

(C-C)

Saturated Hydrocarbons

-

(C-C)

- 2

- 1

Unsaturated Hydrocarbons

-

()

Aromatic Hydrocarbons

-

: Alkanes _____ -2-2

•

(n) (C_nH_{2n+2})

•

•

(CH₂)

•

_____ -3-2

()

% 10-5

%55

()

(3 -2)

:3 -2

	()	
C1-C4	20	
C5-C6	60-20	
C6-C7	100-60	()
C5-C10	200-40	
C12-C18	325-175	
C15-C40	500-300	
C15-C40	400	

%20 -5

)

.(

: Physical properties of alkanes -4-2

.1

.2

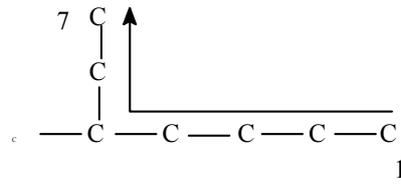
.3

.4

: Nomenclature of organic compounds -5-2

(IUPAC)

- 1



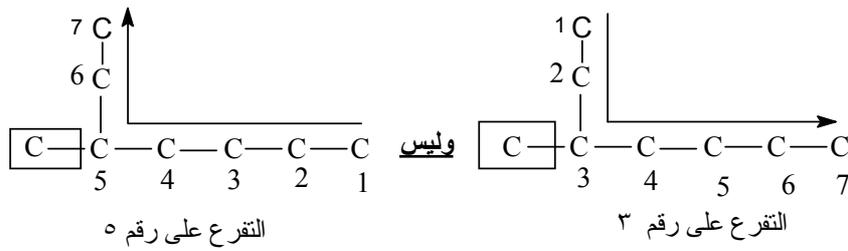
(7)

- 2

" "

- 3

∴



- 4

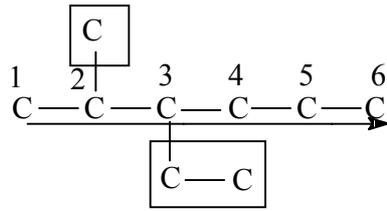
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()

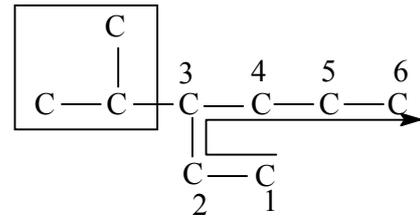
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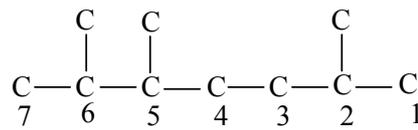
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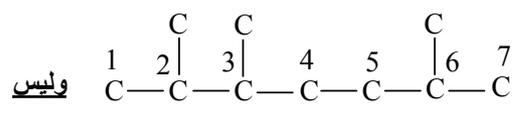
فيها فرعين على ٢ و ٣



فيها فرع واحد على 3



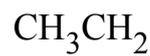
(6,5,2) ثلاثي ميثيل هبتان



(6,3,2) ثلاثي ميثيل هبتان

()

= _____
()



:

()

- 5

: Alkyl group -6-2) - CH₂-. (CH₃)(CH₄)(CH₃CH₃)(.CH₃)

()

$\text{CH}_3\text{CHCH}_2\text{CH}_2$ 	ايزوبيوتيل	CH ₃ -	ميثيل
$\text{CH}_3\text{CHCH}_2-$ CH ₃	ثنائي بيوتيل	CH ₃ CH ₂ -	ايثيل
CH_3 CH ₃ -C-CH ₃ 	ثلاثي بيوتيل	CH ₃ CH ₂ CH ₂ -	بروبيل
		CH ₃ CHCH ₃ 	ايزوبروبيل
		CH ₃ CH ₂ CH ₂ CH ₂ -	بيوتيل

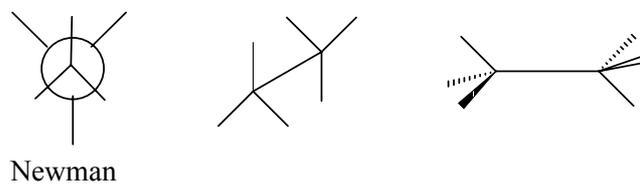
:	:1-2
-2 (2)	(1)
(4)	(3)

: Conformation of alkanes -7-2

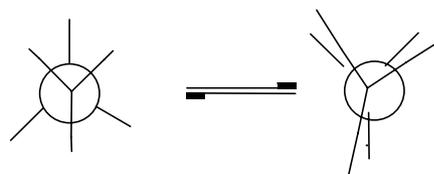
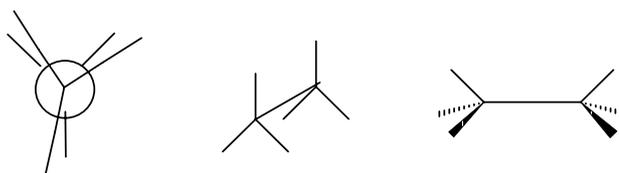
() (σ)

(CH₃)

()



(C-C)



)

(

. () ()

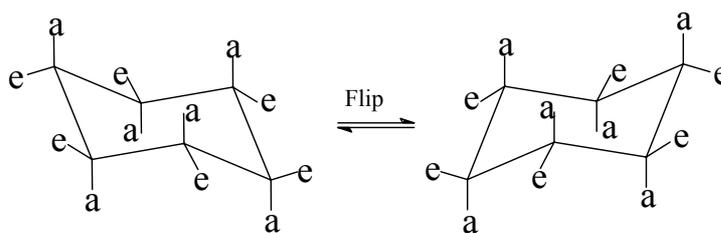


:

%

) (3)

(3)



= a

= e

()

()



(cis)

(4,1) (3,1)

(2,1)

(trans)

(a , e)

(e , e)

(3,1)

(

(e , e)

(2, 1)

(

(e , a)

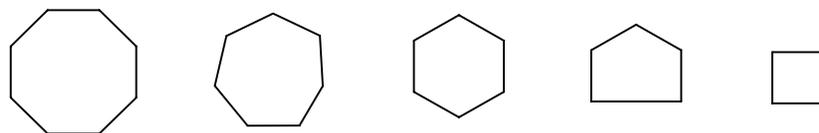
(4, 1)

(

: _____ -8-2

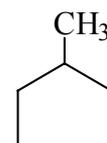
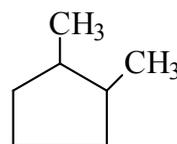
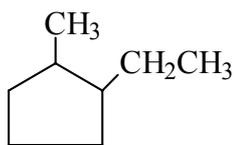
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-
-

1

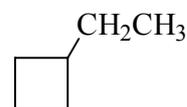
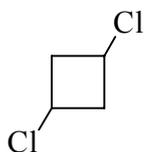


-2- -1

(2,1)

:2-2

(IUPAC)



() - () -9-2

(Trans-Cis)

(C-C)

: Reactions of alkanes -10-2

()

: Oxidation of alkanes -1-10-2

: Halogenation of alkanes

-2-10-2

Chlorination

X= Cl

Bromination

X= Br

