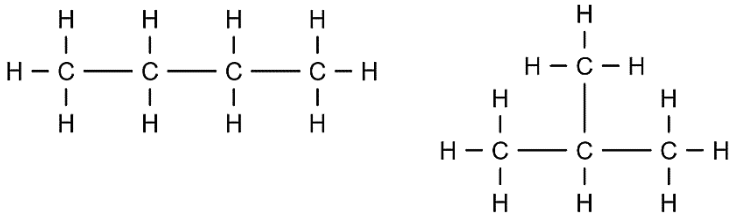
Gabarito de Química

3º E.M, Volume 6

1. Três estruturas.

2.



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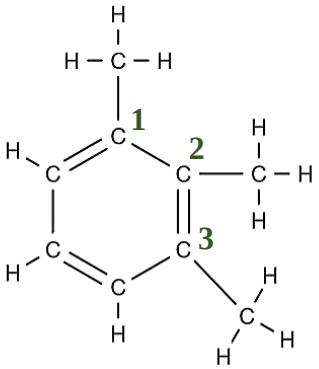
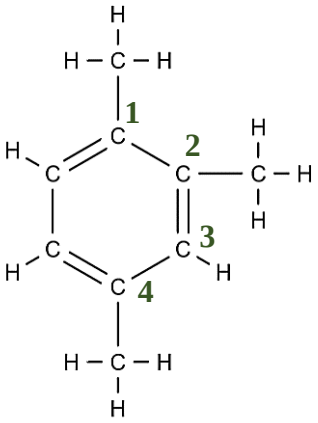
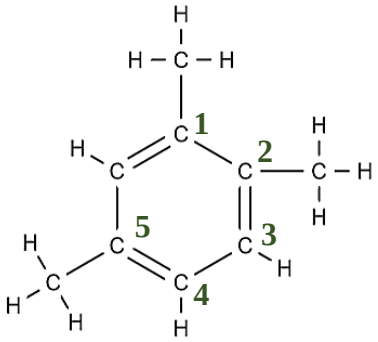


1,2,3-trimetilbenzeno



1,2,4-trimetilbenzeno



1,2,5-trimetilbenzeno

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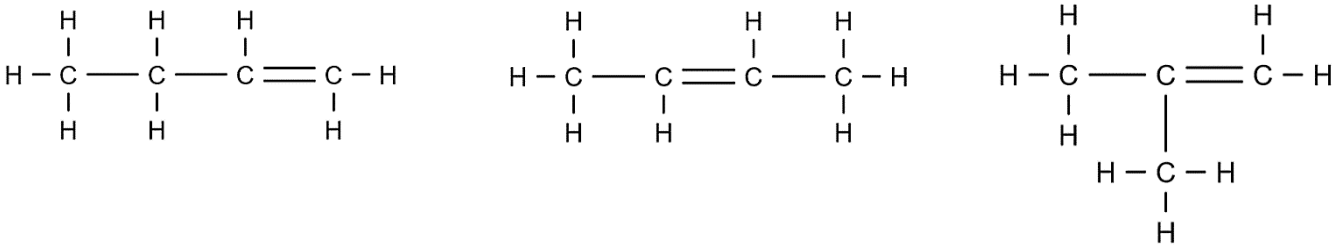

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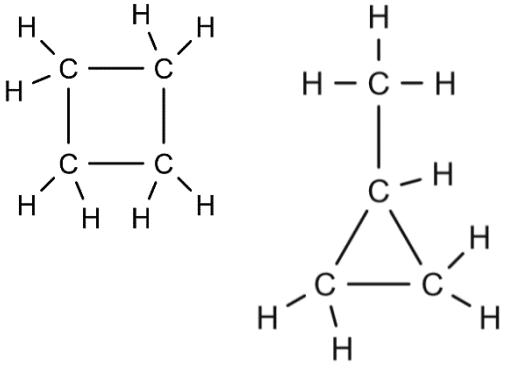

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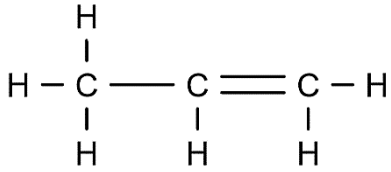
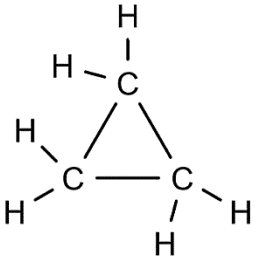
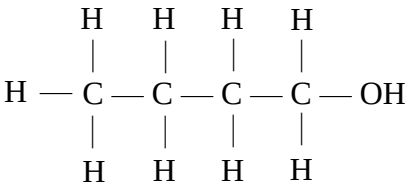
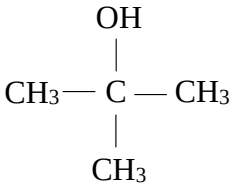


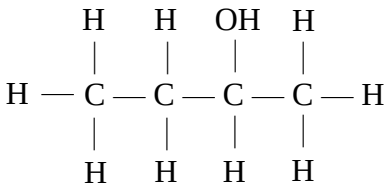


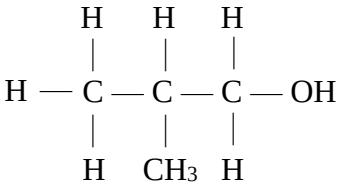
7.

Álcoois:

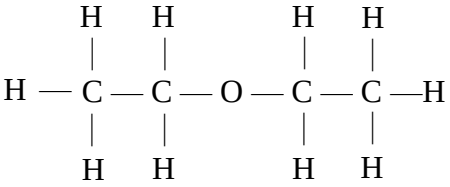


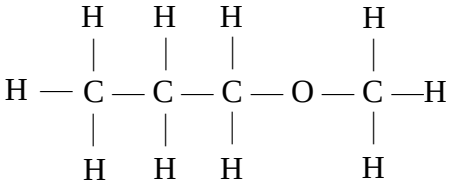


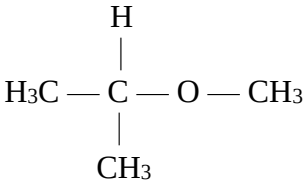




Éteres:

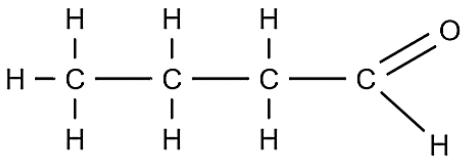






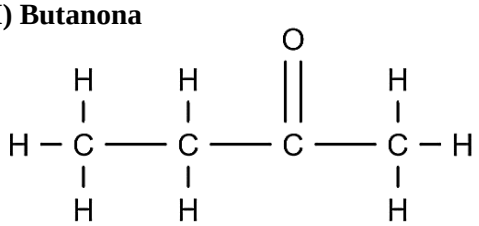
8. I e II. As fórmulas estruturais dos compostos são:

I) Butanal



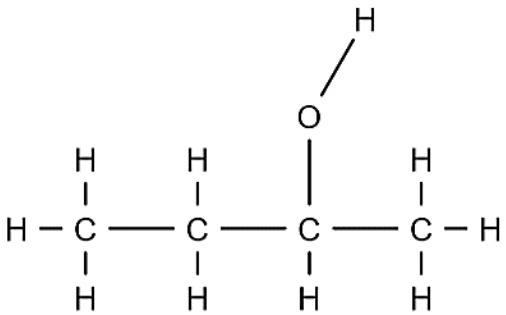
C_4H_8O

II) Butanona



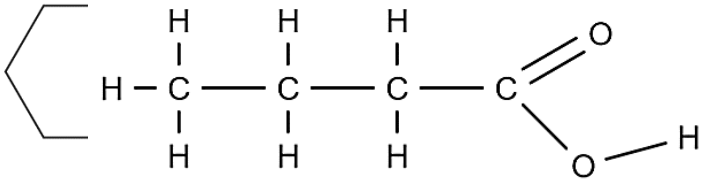
C_4H_8O

III) Butan-2-ol



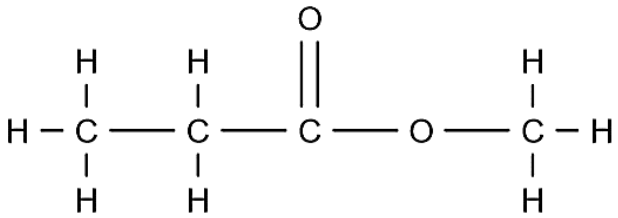
$C_4H_{10}O$

IV) Ácido butanoico



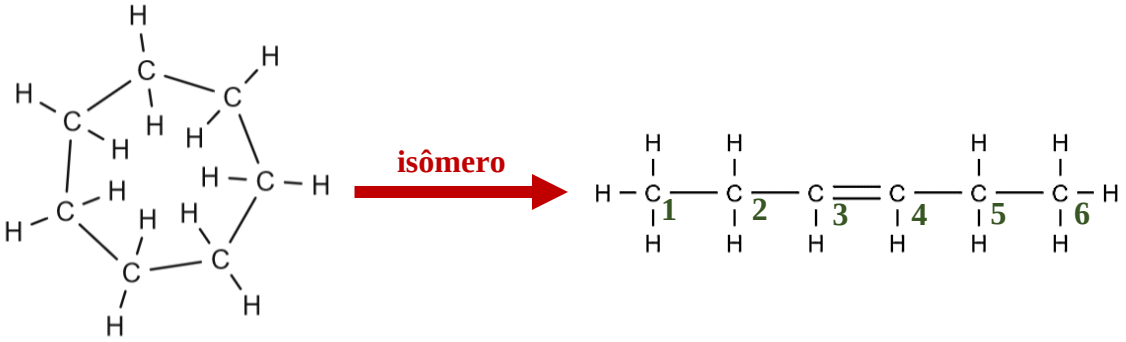
$C_4H_8O_2$

V) Propanoato de metila



$C_4H_8O_2$

9.



C_6H_6

O nome do isômero é hex-3-eno.

10. I e V; III e VII.

11. II e IV.

12. VI e X.

13. I) Tautomeria; II) Compensação ou Metameria.

14. c) but-1-eno

15. b) ácido hexanoico

16. d) 4-metilfenol

17. b) butilmetilamina

18.

a) II e III

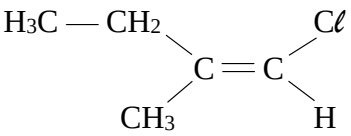
b) Na II) está representado o isômero E. Na III) está representado o isômero Z.

19.

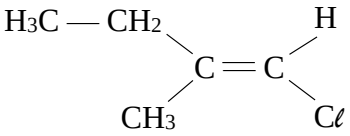
a) II, III, IV, VI, VIII.

b)

II.

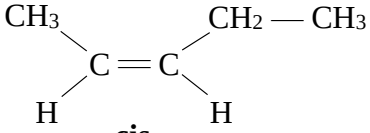


(Z)

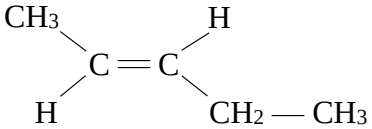


(E)

III.

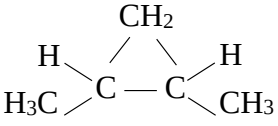


cis

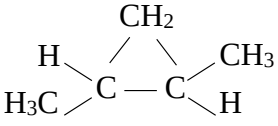


trans

IV.

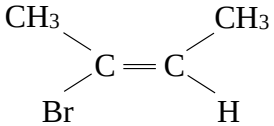


cis

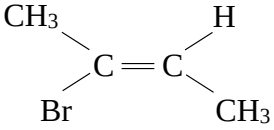


trans

VI.

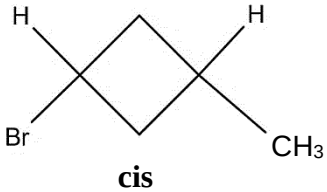


(E)

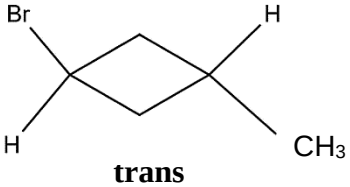


(Z)

VIII.

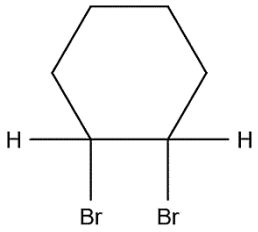


cis

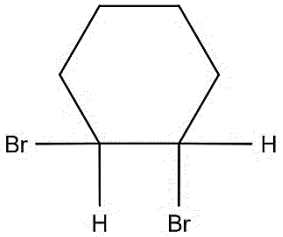


trans

20.



cis-1,2-dibromo-ciclo-hexano

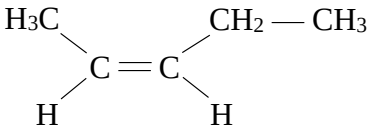


trans-1,2-dibromo-ciclo-hexano

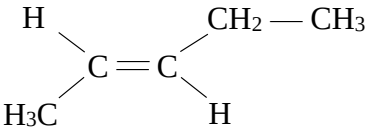
21.

a) Apenas o II.

b) Pent-2-eno. As representações cis e trans:



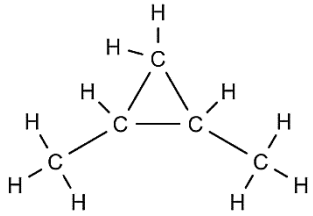
Cis-pent-2-eno



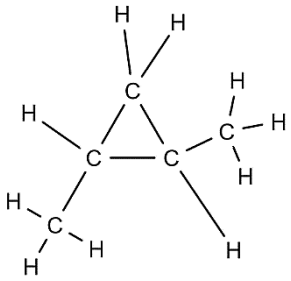
Trans-pent-2-eno

c) Apenas o IX.

d) 1,2-dimetilciclopropano. As representações cis e trans:



cis-1,2-dimetilciclopropano

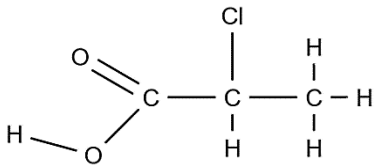


trans-1,2-dimetilciclopropano

22.

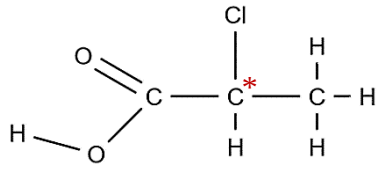
a) Ácido carboxílico e haleto orgânico (cloreto).

b)



c) $C_3H_5O_2C\ell$

d) O carbono quiral está destacado pelo asterisco (lembre-se: ele tem que ter 4 grupos ligantes diferentes):



23. II e VI.

24. epinefrina → funções: fenol, álcool e amina; número de carbonos quirais existentes: apenas 1.

treonina → funções: álcool, amina e ácido carboxílico; número de carbonos quirais existentes: 2.