Exercícios de Hidrocarbonetos

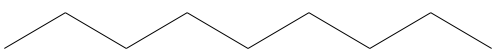
01) Escreva as fórmulas estruturais e moleculares dos seguintes alcanos:

a) propano;
b) pentano;
c) 2-metilheptano;
d) 4–etil- 2,2,3-trimetildecano.

02) Dê os nomes dos alcanos representados por suas fórmulas estruturais:

a) $H_3C-CH_2-CH_2-CH_3$

b) $H_3C-[CH_2]_6-CH_3$

c) 

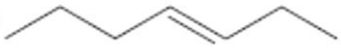
03) O gás de cozinha (GLP) é uma mistura de propano e butano. Indique a opção que representa as fórmulas moleculares dos dois compostos orgânicos, respectivamente.

a) C_3H_6 e C_4H_6.
b) C_3H_6 e C_4H_8.
c) C_3H_8 e C_4H_{10}.
d) C_3H_8 e C_4H_8.
e) C_3H_8 e C_4H_{12}.

04) Escreva as fórmulas estruturais e moleculares dos seguintes alquenos:

a) propeno; b) pent-1-eno; c) hex-2-eno; d) hex-3-eno.

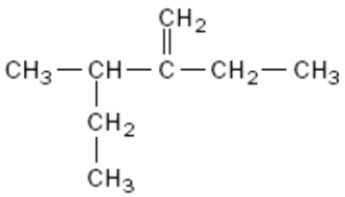
05) Dê o nome dos alquenos representados por suas fórmulas estruturais:

a) $H_3C-CH=CH-CH_2-CH_3$
b) $H_3C-CH_2-CH_2-CH_2-CH=CH_2$
c) $H_2C=CH-CH_2-CH_2-CH_2-CH_2-CH_3$
d) 

06) Dê a fórmula estrutural dos seguintes hidrocarbonetos

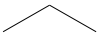
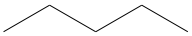
a) 2,2-dimetil-3-etilexano;
b) 3-etil-4-propileptano;
c) 3,4-dietil-2-metilexano;
d) 4-butil-4-etil-2,2,3-trimetiloctano.
e) 2,3-dimetilpent-1-eno;
f) 3-etil-2-metilex-2-eno;
g) 2-etil-1metilciclopentano
h) hex-1,3,5-trieno

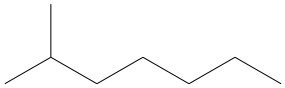
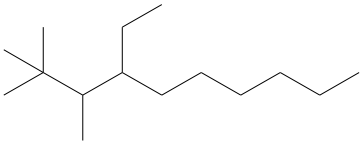
07) A nomenclatura oficial para a fórmula a seguir é:



a) 2-etil-3-etilbutano.
b) 2-etil-3-metilexano.
c) 3-metil-3-etilexano.
d) 2-etil-3-metilpent-1-eno.
e) 2-etil-3-metilpentano.

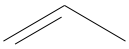
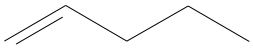
GABARITO

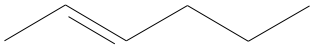
1) a)  b) 

c)  d) 

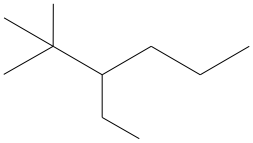
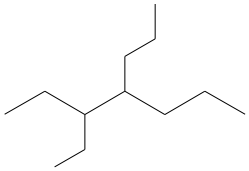
2) a) butano b) octano c) nonano

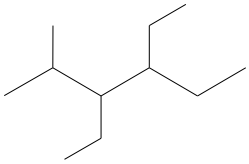
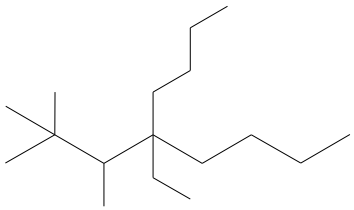
3) c

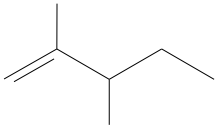
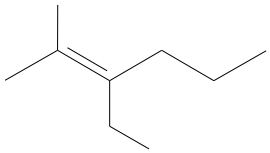
4) a)  C_3H_6 b)  C_5H_{10}

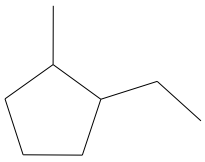
c)  C_6H_{12} d)  C_6H_{12}

5) a) pent-2-eno b) hex-1-eno c) hept-1-eno d) hept-3-eno

6) a)  b) 

c)  d) 

e)  f) 

g)  h) 

7) d