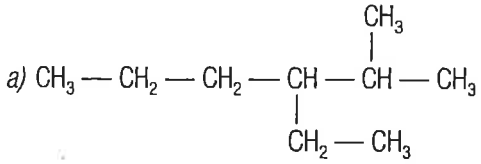
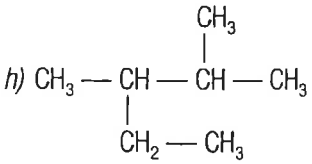
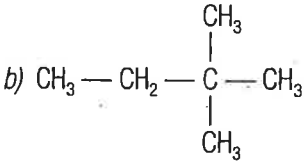
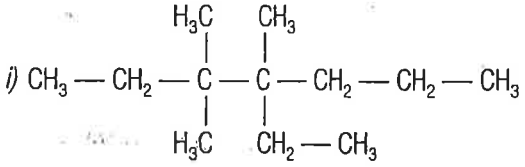
5 Nombra los siguientes alcanos:

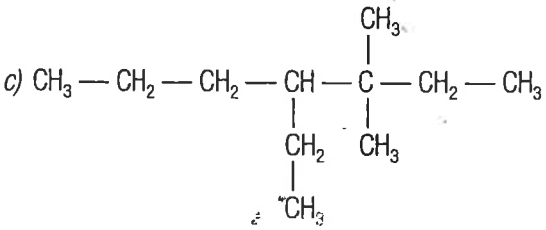
1

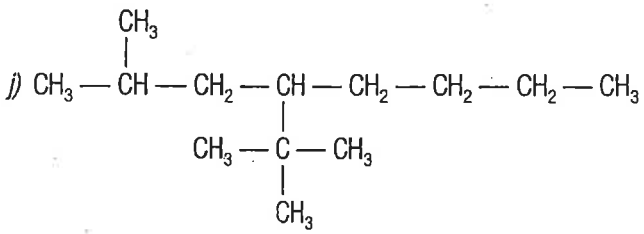
a) 

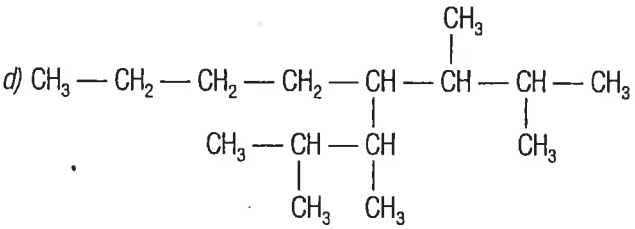
h) 

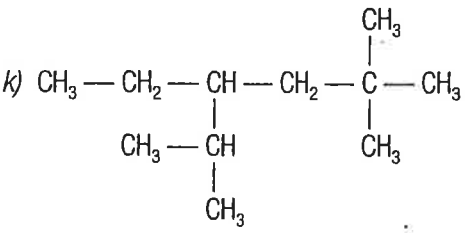
b) 

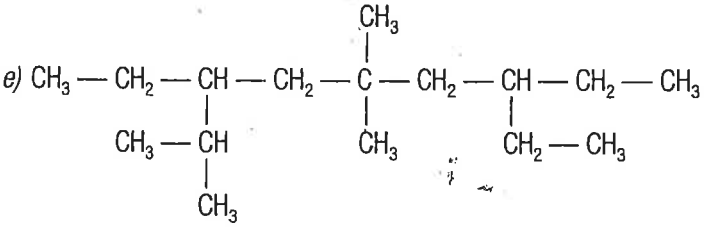
i) 

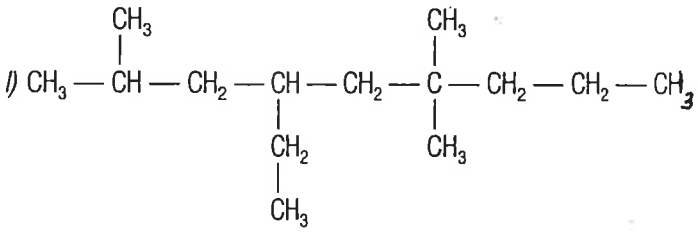
c) 

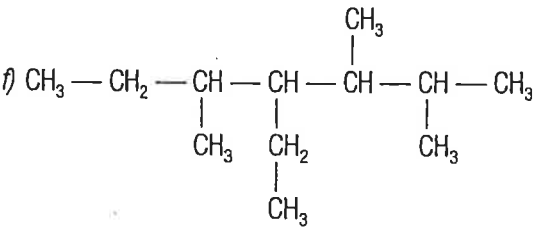
j) 

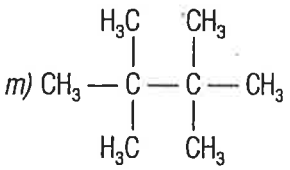
d) 

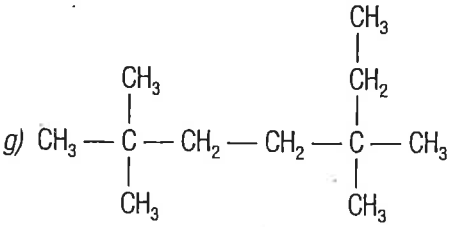
k) 

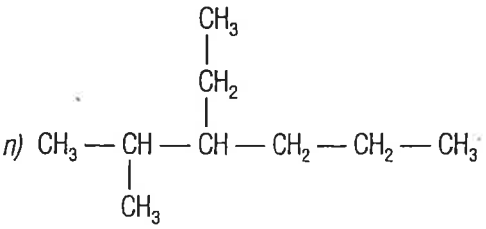
e) 

l) 

f) 

m) 

g) 

n) 

6 Formula los siguientes compuestos:

a) 2,2-dimetilpentano

b) 3,5-dimetilheptano

c) 3,3,6-trietil-6-metiloctano

d) 5-(2,2-dimetilpropil)-4-propilnonano

e) 4-etil-3,3-dimetilheptano

f) Hexametilpentano

g) 2,3-dimetil-5-propildecano

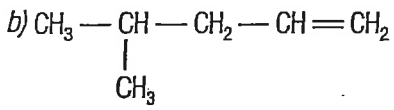
h) 4-etil-3-metildecano

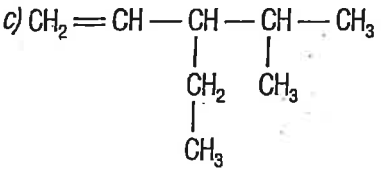
i) 2,3,5-trimetil-4-propilheptano

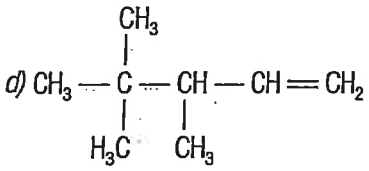
j) 4-etil-2,5,7-trimetil-5-propilnonano

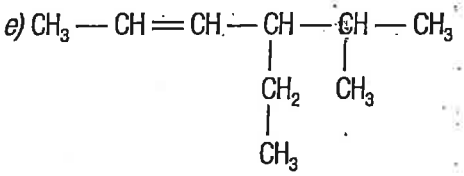
7 Nombra los siguientes compuestos:

a) $CH_2=CH-CH_3$

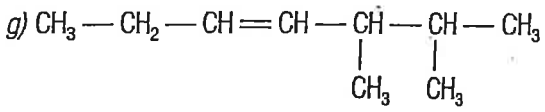
b) 

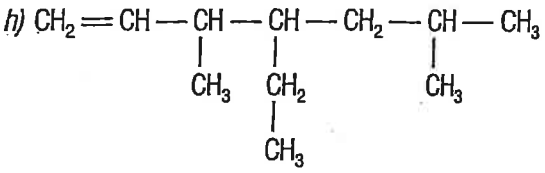
c) 

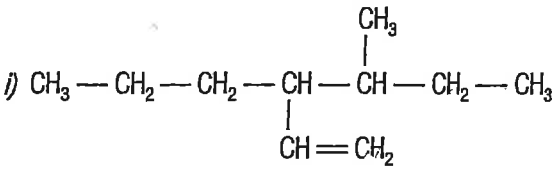
d) 

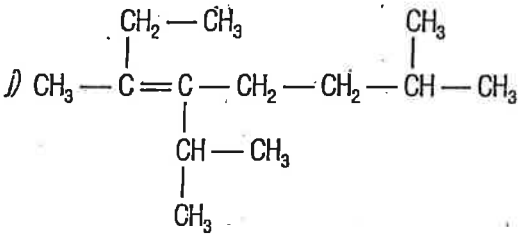
e) 

f) $CH_3-CH=CH-CH_3$

g) 

h) 

i) 

j) 

8 Formula los compuestos siguientes:

a) 2-penteno

b) 1-buteno

c) Eteno

d) 3,5-dimetil-2-hexeno

e) 2,3-dimetil-2-buteno

f) 3-hepteno

g) 2-hexeno

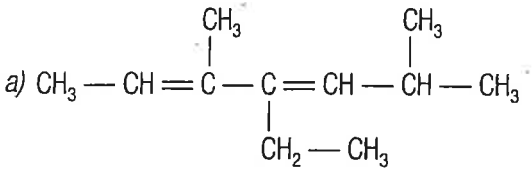
h) 3-deceno

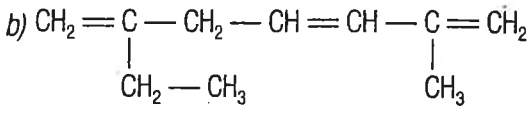
i) 2,4-dimetil-3-hexeno

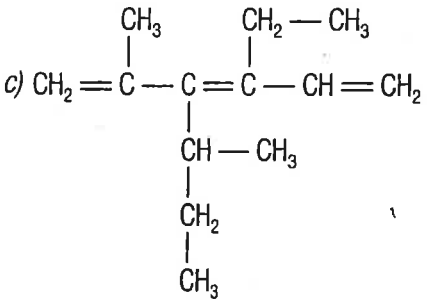
j) 4,4-dimetil-2-(1-metiletil)-2-penteno
(Formula este compuesto y comprueba si está bien nombra
Si no es así escribe su nombre correcto).

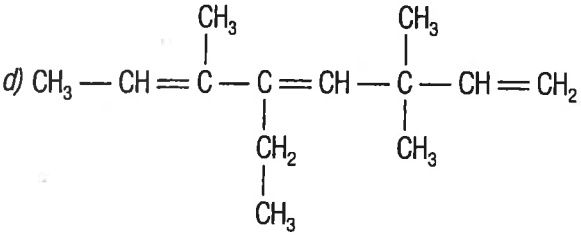
9 Nombra los siguientes compuestos:

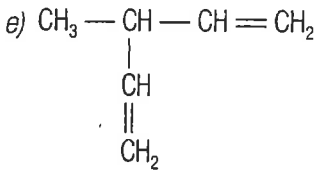
(4)

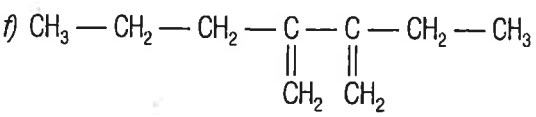
a) 

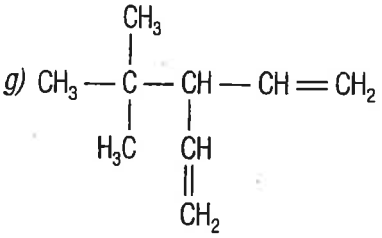
b) 

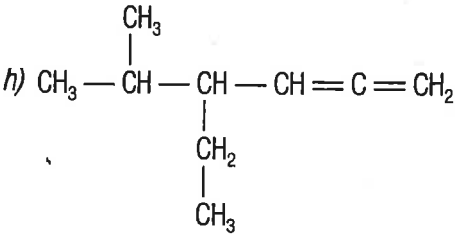
c) 

d) 

e) 

f) 

g) 

h) 

10 Formula los compuestos siguientes:

a) 1,3-pentadieno

b) 1,3,5-heptatrieno

c) 5-etil-2,6-dimetil-2,3,4-octatrieno

d) 3-etil-2,4-dimetil-3-hepteno

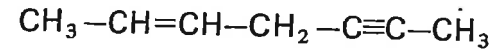
e) 2-hexeno

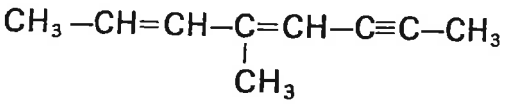
f) 3-etil-2,3-dimetil-1,4-pentadieno

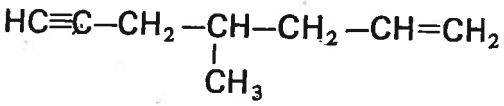
g) 2,6-dimetil-2,3,4,5-octatetraeno

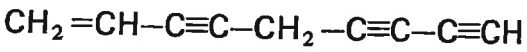
h) 4-etil-5-metil-2-hepteno

III-5

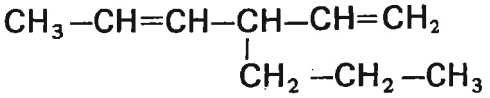


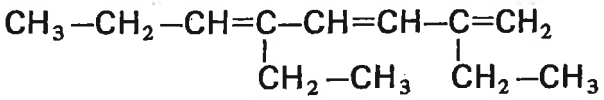


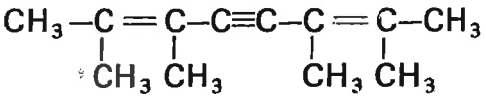


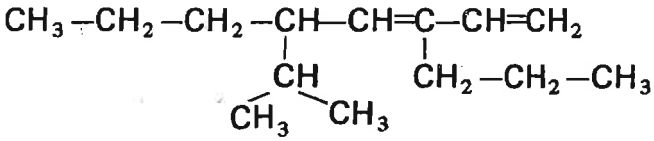


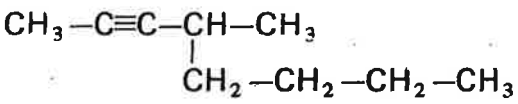
III-6

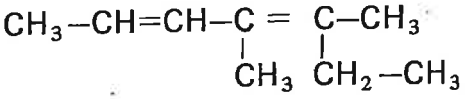


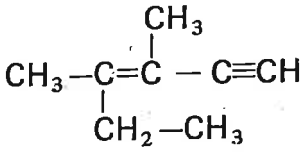


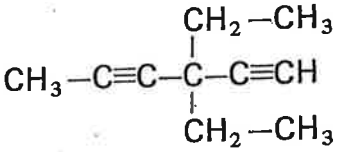


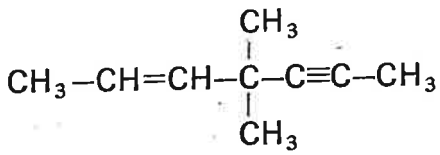












III-7 Formula

1) 4-metiloct-2-ino
(4-metil-2-octino)

2) 3-propilhexa-1,4-dieno
(3-propil-1,4-hexadieno)

3) 2,5-dietilocta-1,3,5-trieno
(2,5-dietil-1,3,5-octatrieno)

4) hept-2-en-5-ino
(2-hepten-5-ino)

5) 4-metilhept-1-en-6-ino
(4-metil-1-hepten-6-ino)

6) non-1-en-3,6,8-triino
(1-nonen-3,6,8-triino)

7) 2,3,6,7-tetrametilocta-2,6-dien-4-ino
(2,3,6,7-tetrametil-2,6-octadien-4-ino)

8) 5-isopropil-3-propilocta-1,3-dieno
(5-isopropil-3-propil-1,3-octadieno)

9) 4,5-dimetilhepta-2,4-dieno
(4,5-dimetil-2,4-heptadieno)

10) 3,4-dimetilhex-3-en-1-ino
(3,4-dimetil-3-hexen-1-ino)

11) 4,4-dimetilhept-2-en-5-ino
(4,4-dimetil-2-hepten-5-ino)

12) 4-metilocta-2,4-dien-6-ino
(4-metil-2,4-octadien-6-ino)

13)

7-butil-9,10,10-trietil-9-metil-4,4-dipropildodeca-1,2-dien-5-ino
(7-butil-9,10,10-trietil-9-metil-4,4-dipropil-1,2-dodecadien-5-ino)

Escribe el nombre de los siguientes compuestos

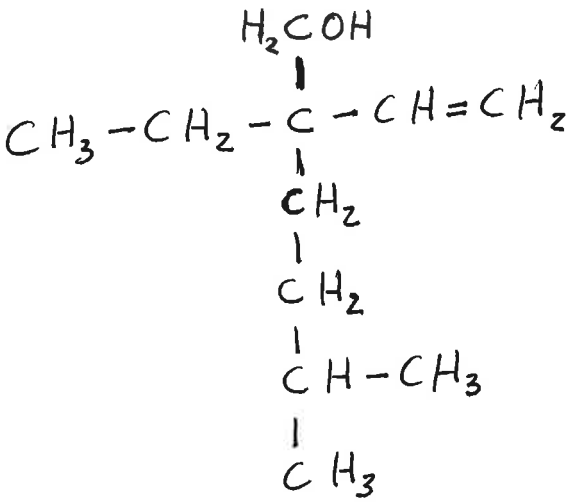
CH_3OH también H_3COH

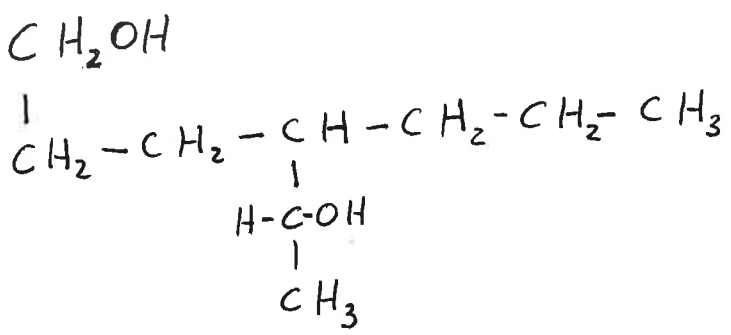
$CH_3-CHOH-CH_2-CH_3$

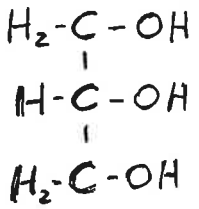
$CH_2OH-CHOH-(CH_2)_3-CH_3$

$CH_2OH-CH=CH_2$

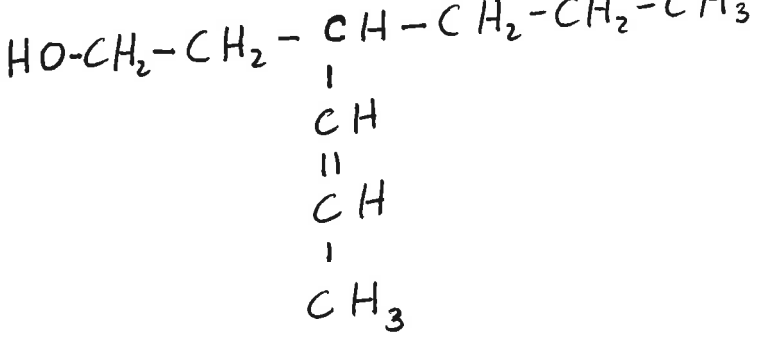
$CH_3-CH(CH_3)-CH(OH)-CH=CH_2$

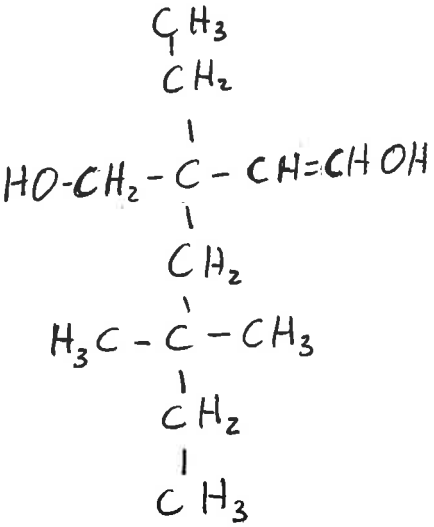






$CH_2=CH-COH=CH-C\equiv C-CH_2OH$





Formula los siguientes compuestos

Etanol

Etanodiol

2-propanol

butan-1-ol

pentano-1,4-diol

2-buten-1-ol (but-2-en-1-ol)

metanol

2-metilhexan-2-ol

5-metilhex-3-en-2-ol

6,6-dimetilhept-4-in-2-ol

3,4-dimetilhexano-1,3-diol

hex-3-eno-1,2,5-triol

2-etil-4-metilhex-3-en-1-ol

1,2,3-propanotriol
(glicerina o glicerol)

Escribe la fórmula de los siguientes compuestos. (9)

metanal

pentan-2-ona
(2-pentanona)

etanodial

butenona

hexa-4,5-dien-2,3-diona

pent-4-in-2-ona

3-hidroxiheptanal

2,2,3-trimetil-4-pentilnonanal

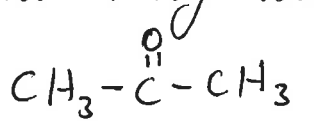
3,5-dihidroxi-2,4-hexanodiona

4,4-dimetil-6(metiletil)-
-5,8-dioxononа-2,6-dienal

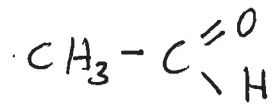
hexilpropanodial

4-hidroxi-2-metil-3-oxopent-4-enal

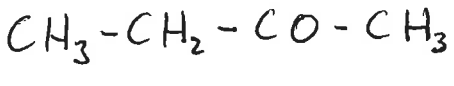
Nombra los siguientes compuestos

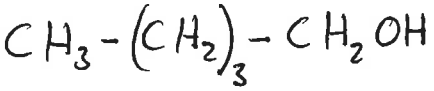


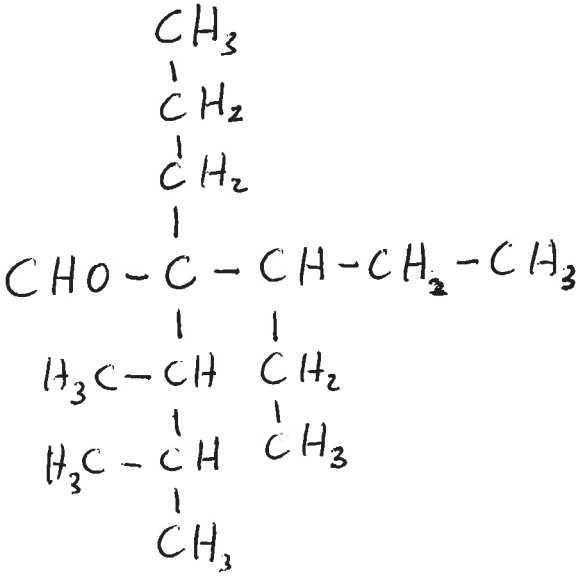
$(CH_3-CO-CH_3)$

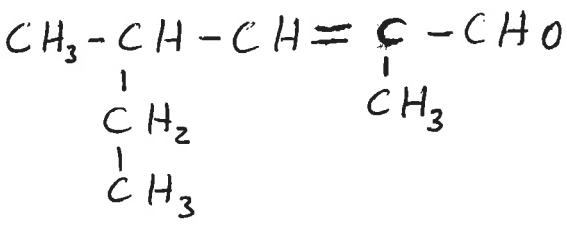


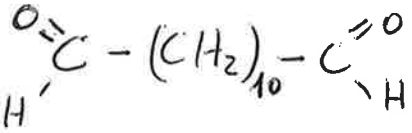
(CH_3-CHO)

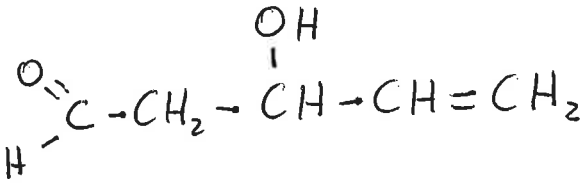


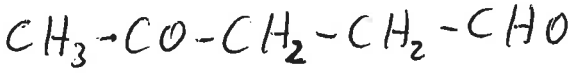


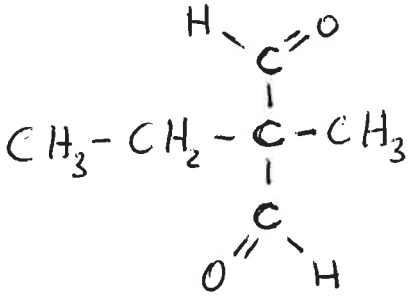


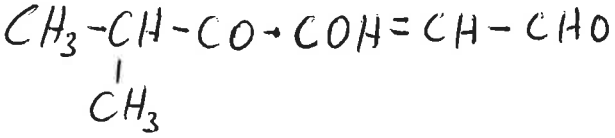


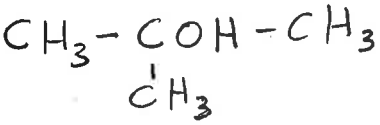












Escribe las fórmulas de los siguientes compuestos

1) ácido metanoico (ácido fórmico) 2) ácido etanoico (acético)

3) ácido 3-metilbutanoico 4) ácido propenoico.

5) ácido hexanodioico (ácido adipídico) 6) ácido hidroxipropanoico (ácido láctico)

7) ácido 3-hidroxi-2-propilpentanodioico

8) ácido 5,7-dioxohept-2-enoico

9) propanamina 10) N-metilbutanamina

11) 2,N-dimetilpentanamina 12) ácido 3-aminoheptanoico.

Escribe los nombres de los siguientes compuestos. (12)

13) $CH_3-(CH_2)_{12}-COOH$

14) $HOOC-COOH$

15) $CH_2=CH-CH_2-COOH$

16) $CHO-CH_2-CO-CH_2OH$

17) $CH_3-CH_2-\underset{\underset{COOH}{|}}{C}=\overset{\overset{CH_3}{|}}{\underset{\underset{CH_2}{|}}{C}}-COOH$

18) $HOOC-CH_2-CHO$

19) $H-\overset{\overset{O}{\|}}{C}-CH=\overset{\overset{CH_3}{|}}{C}-CH_2-CH_2-\overset{\overset{CH_3}{|}}{C}=CH-\overset{\overset{O}{\|}}{C}-H$

(olor a limón)

20) H_3CNH_2

21) $CH_3-(CH_2)_7-CH=CH-(CH_2)_7-COOH$

(ácido oleico)

22) $CH_3-CH_2-CH_2-NH-CH_2-CH_3$

23) $CH_3-CH_2-N(CH_3)_2$

24) $CH_3-\underset{\underset{NH_2}{|}}{CH}-CH_2-CH_3$

25) $H_2NCH-\overset{\overset{O}{\|}}{C}-OH$

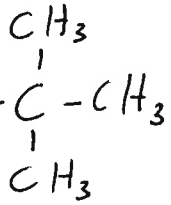
1.- Escribe todos los isómeros que puedas del 2-metilpentano y del ciclopentano y escribe sus nombres. También del 1-butanol y del prop-1-en-1-ol.

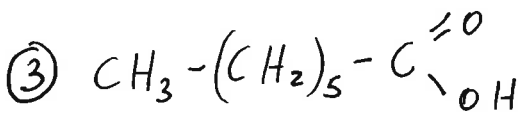
2.- Determina si los siguientes compuestos tienen isomería geométrica y en caso afirmativo dibuja los isómeros y nómbralos.

a) pent-2-eno
b) 2-metilbut-2-eno
c) metilpropeno
d) 2-clorobut-2-eno
e) ciclopentano
f) ciclohexeno
g) metilciclopentano
h) 1,3-dimetilciclopentano.

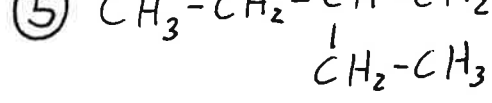
3.- Entre los siguientes compuestos di cuáles son isómeros y de qué tipo.

① $CH_3-CH=CH-(CH_2)_3-CH_3$

② 

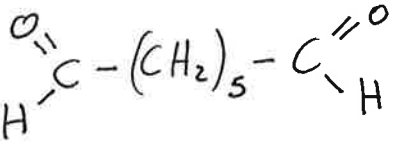
③ 

④ $CH_3-CH_2-CH_2-CH_2-CH=CH-CH_3$

⑤ 

⑥ $CH_2=CH-(CH_2)_3-CHOH-CH_2OH$

⑦ $CH_3-CH_2-CH=CH-CH_2-CH_2-CH_3$

⑧ 

⑨