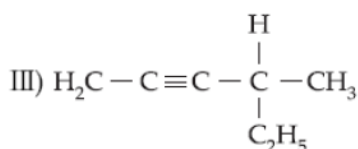
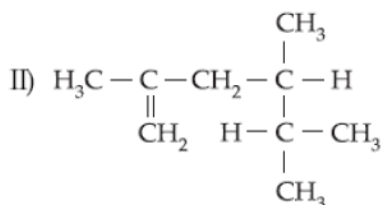
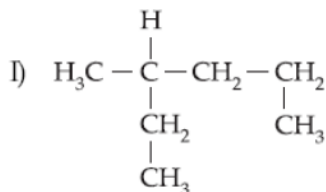


LISTA DE EXERCÍCIOS – NOMENCLATURA DE HIDROCARBONETOS

ESQUEMA DE NOMENCLATURA

- 1º Identificar a cadeia principal;**
- 2º Identificar as ramificações;**
- 3º Numerar a cadeia principal, obedecendo:**
 - 1º Grupo funcional (álcool, cetona, aldeído, ...)**
 - 2º Insaturação (dupla / tripla)**
 - 3º Ramificação**
- 4º Dar o nome das ramificações e depois na cadeia principal.**

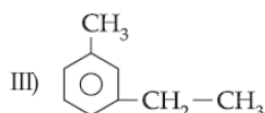
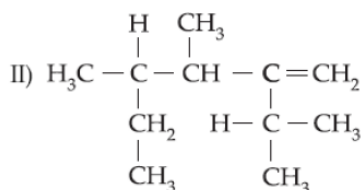
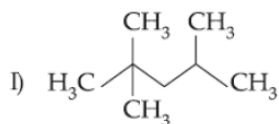
1. (Vunesp-SP) Os nomes corretos dos compostos orgânicos:



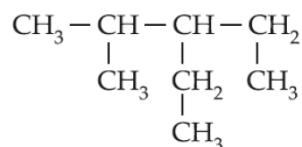
2. (Mackenzie-SP) Retirando-se um dos hidrogênios do metano e colocando-se o radical terc-butil, tem-se a fórmula do:

- a) dimetil-propano. b) 2-metil-butano.
 c) pentano. d) 2,3-dimetil-butano.
 e) butano.

3. (UECE-CE) Dê os nomes nos compostos:



4. (PUC-RS) O composto orgânico representado a seguir:



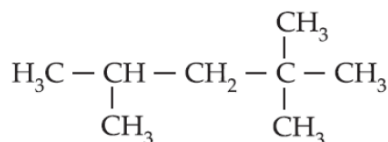
é denominado:

- a) 3-etil-2,4-dimetilbutano. b) 2-etil-1,3-dimetilbutano.
 c) 3-isopropilpentano. d) 3-etil-4-metilpentano.
 e) 3-etil-2-metilpentano.

5. (UEL-PR) Considere o alcano com o menor número de átomos de carbono apresentando um radical etil ligado à cadeia carbônica principal. Qual o número total de átomos de carbono na molécula do hidrocarboneto?

- a) 6 b) 7 c) 8 d) 9 e) 10

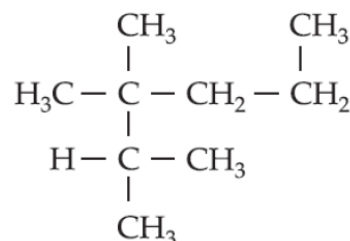
6. (PUC-MG) Dada a cadeia carbônica



verifica-se que a soma das posições dos carbonos na numeração da cadeia é:

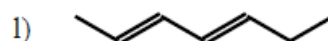
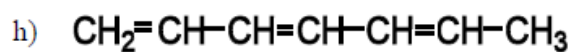
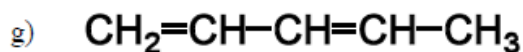
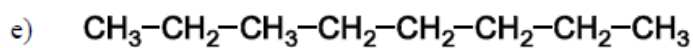
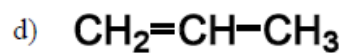
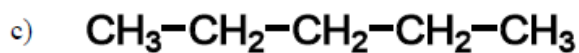
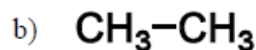
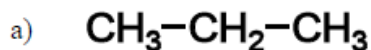
- a) 4 b) 6 c) 8 d) 10 e) 12

7. (Vunesp-SP) O nome correto do composto orgânico de fórmula

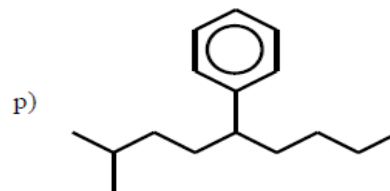
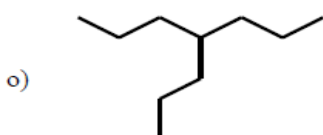
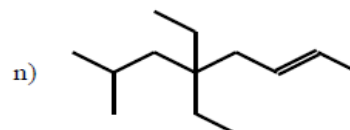
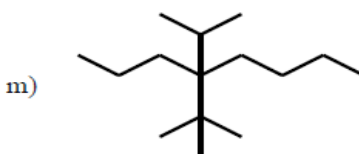
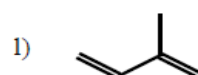
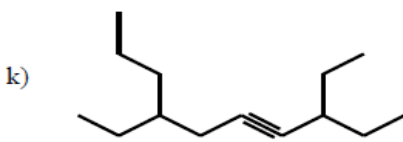
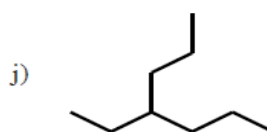
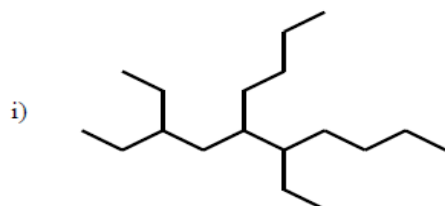
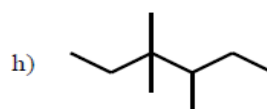
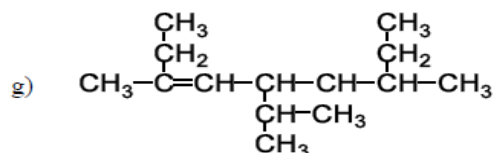
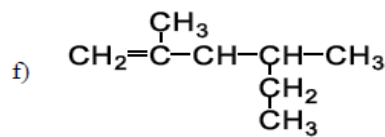
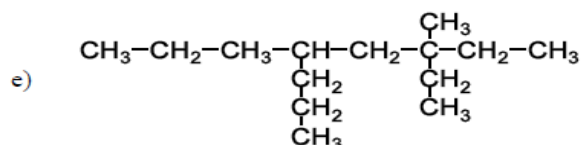
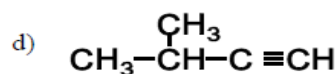
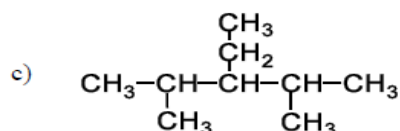
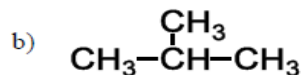
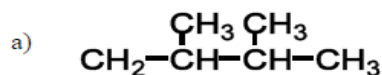


- a) 3-isopropil-2-metilpentano.
 b) 2-isopropil-2,4-dimetilbutano.
 c) 2,3,3-trimetilhexano.
 d) 2,2,4-trimetilpentano.
 e) 3,3-dimetil-5-metilpentano.

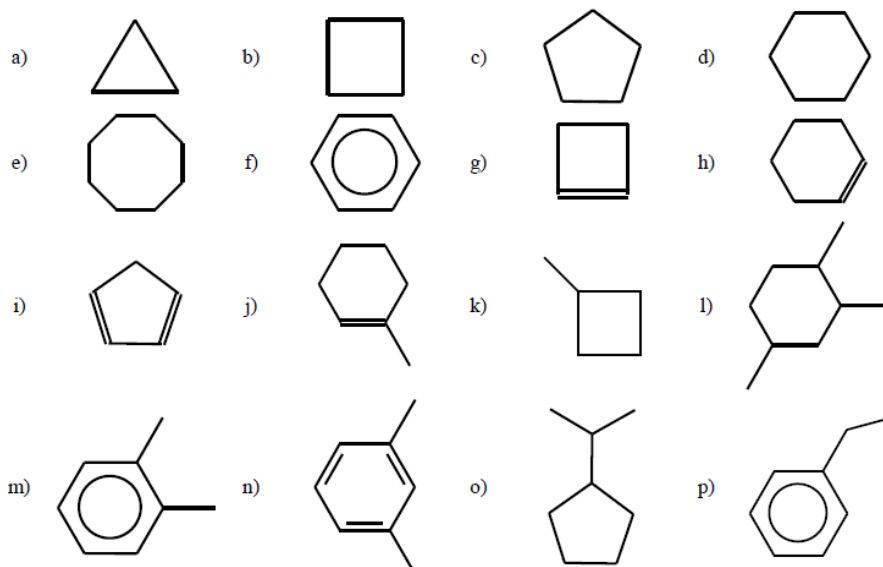
8. Dê o nome segundo as recomendações da IUPAC para os hidrocarbonetos apresentados abaixo.



9. Dê o nome segundo as recomendações da IUPAC para os hidrocarbonetos de cadeia ramificada apresentados abaixo.



10. Dê o nome segundo as recomendações da IUPAC para os hidrocarbonetos cíclicos apresentados abaixo.



11. Forneça as estruturas dos seguintes hidrocarbonetos:

- | | |
|----------------------|--------------------------------|
| a) Butano | h) 2,2-dimetilbutano |
| b) Heptano | i) 3-etil-2,5,5-trimetiloctano |
| c) Pent-2-ino | j) 5-sec-butil-deca-2,6-dieno |
| d) Propino | k) para-dimetilbenzeno |
| e) Eteno | l) meta-dietilbenzeno |
| f) Nona-1,3,6-trieno | m) 3-etil-ciclo-hexeno |
| g) 3-metilpentano | n) 1,1,2-trimetilciclopentano |

GABARITO

01- I) 3-metil hexano ; II) 2,4,5 trimetil hex-1-eno ; III) 4-metil hex-2-ino ; 02- A ; 03- I) 2,2,4-trimetil-pentano (isotano) ; II) 2-isopropil-3,4-dimetil hex-1-eno ; III) 1-etil-3-metil-benzeno ; 04- E; 05- B ; 06- C ; 07- C

- | | | |
|----------------------------------|-------------------------------------|-----------------------------------|
| 08- a) propano | g) penta-1,3-dieno | l) hepta-2,4-dieno |
| b) etano | h) hepta-1,3,5-trieno | m) nona-3,5-diino |
| c) pentano | i) hexano | n) oct-4-ino |
| d) propeno | j) but-2-ino | o) nonano |
| e) octano | k) decano | p) oct-2-eno |
| f) but-1-ino | | |
| 09- a) 2,3-dimetilbutano | g) 5-isopropil-3,7-dimetilnon-3-eno | l) 2-metilbuta-1,3-dieno |
| b) metilpropano | h) 3,3,4-trimetil-hexano | m) 4-isopropil-4-terc-butiloctano |
| c) 3-etil-2,4-dimetilpentano | i) 5-butil-3,6-dietildecano | n) 5,5-dietil-7-metiloct-2-eno |
| d) 3-metilbut-1-ino | j) 4-etil-heptano | o) 4-propil-heptano |
| e) 3-etil-3-metil-5-propiloctano | k) 3,7-dietildec-4-ino | p) 5-fenil-2-metilnonano |
| f) 2,4-dimetil-hex-1-eno | | |
| 10- a) ciclopropano | g) ciclobuteno | l) 1,2,4-trimetilciclo-hexano |
| b) ciclobutano | h) ciclo-hexeno | m) 1,2-dimetilbenzeno |
| c) ciclopentano | i) ciclo-penta-1,3-dieno | n) 1,3-dimetilbenzeno |
| d) ciclo-hexano | j) 1-metilciclo-hex-1-eno | o) isopropilciclopentano |
| e) ciclooctano | k) metilciclobutano | p) etilbenzeno |
| f) benzeno | | |

