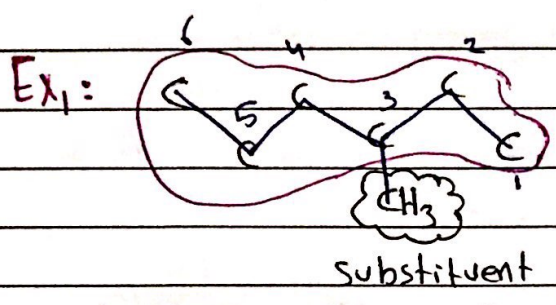


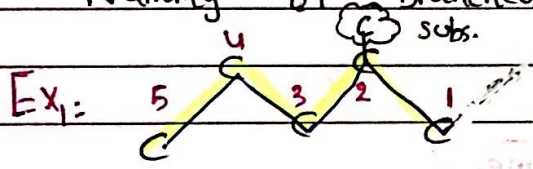
5 Write substituents first, then the parent name, use comma (,) among numbers and (-) between number and letter.

Alphabetical order



parent name: hexane
3-methyl hexane

Naming of branched alkanes:



Parent name: Pentane

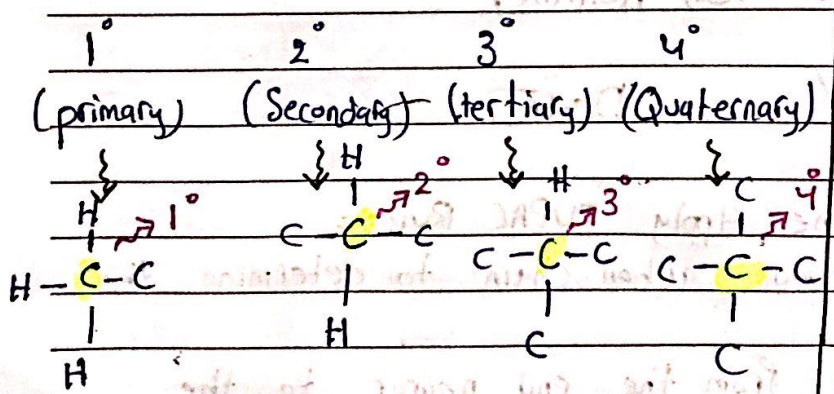
(2-methyl Pentane)

alkyl group) C_nH_{2n+1}

Naming of substituent:

- ① $CH_3 \sim$ methyl
- ② $CH_2CH_2 \sim$ ethyl
- ③ Propyl: $CH_3CH_2CH_2 \sim$ (propyl)

→ Classification of Carbon-atoms:



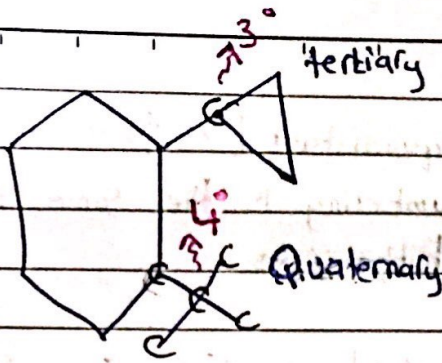
- ④ $CH_3 - C^* - CH_3$ (isopropyl)
- ⑤ Butyl: C_4H_9

It has 4 types:

- ① $CH_3CH_2CH_2CH_2 \sim$ Butyl
- ② $CH_3 - C^* - CH_2CH_3$ Sec-Butyl
- ③ $CH_3 - C^* - CH_3$ tert-Butyl
- ④ $CH_3 - C^* - CH_2 \sim$ iso Butyl

ملقطه (sim) كذا على صيغة
الكربون

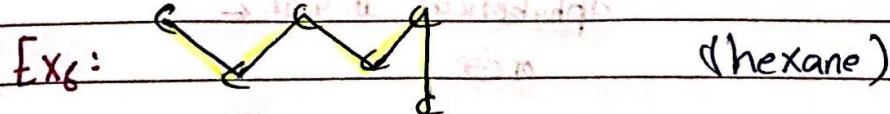
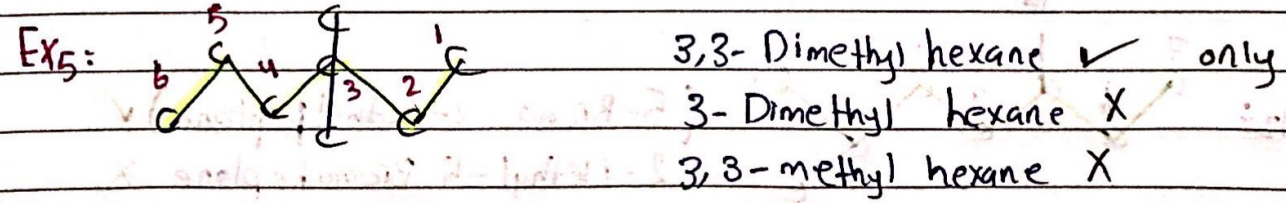
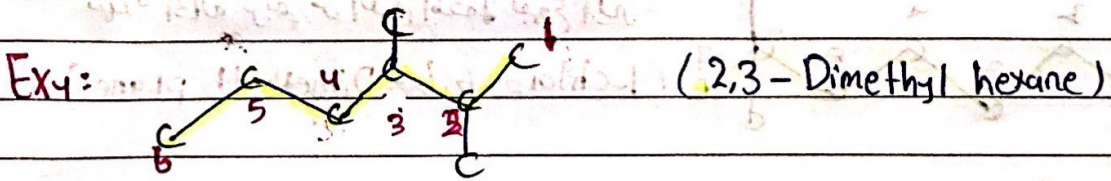
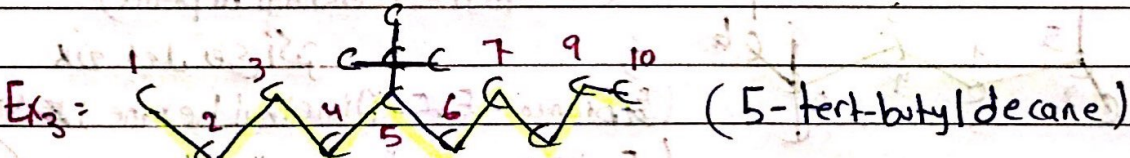
Ex:



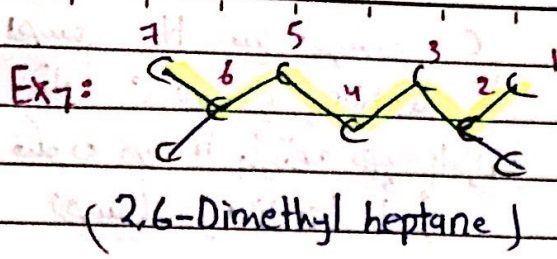
* لَصِفَ C تَبَعِ H لَصِفَ
 tertiary تصنف C
 فتكون ذرة H المرتبطة بهذه الكربنة
 تصنفًا tertiary أيضًا.

Substituent could be:

- ① F ~ (Fluoro)
- ② Cl ~ (chloro)
- ③ Br ~ (Bromo)
- ④ I ~ (iodo)

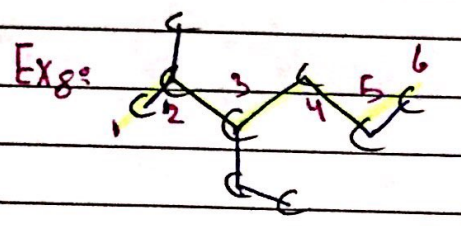


* لا يوجد تفرع الالك على C رقم (1)

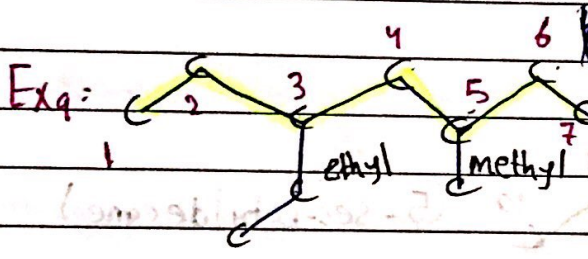


رقم ترتب
 (الكثيرة من المين من اليسار)
 equidistant numbering is the same from both sides.

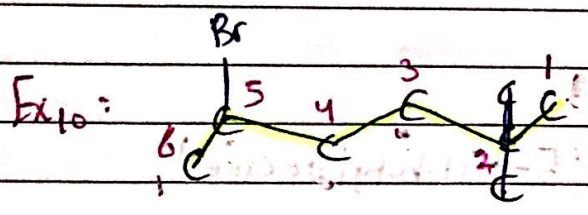
ممنوع سنقر الفرع قبل ما نختار أطول سلسلة كربونية



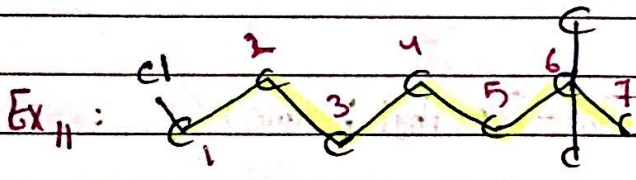
لا تسلسل نفس الطول اختار أي منها (بسطاً)
 (2-equal carbon chain length)
 Select one with more branching



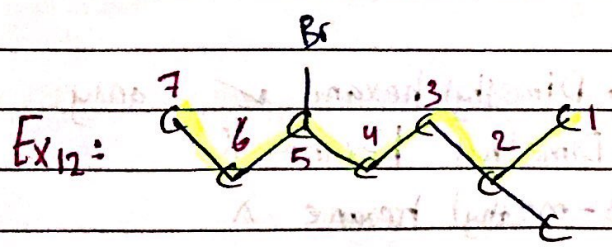
(3-ethyl-2-methyl hexane)
 If branching is equidistant, number the chain based on alphabetical order (ethyl before methyl)



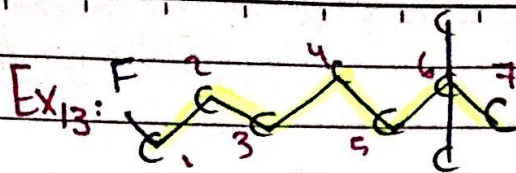
(3-ethyl-5-methyl heptane)
 (2-Bromo-5,5-Dimethyl hexane) ✓
 (5-Bromo-2,2-dimethyl hexane) ✓



هذه الحالة نرقم من الفرع المحقق بفروع أكثر.
 (1-chloro-6,6-Dimethyl heptane)

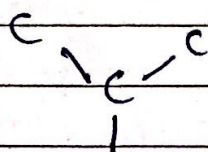


(5-Bromo-2-methyl heptane) ✓
 2-Methyl-5-Bromo heptane X
 alphabetical order ←

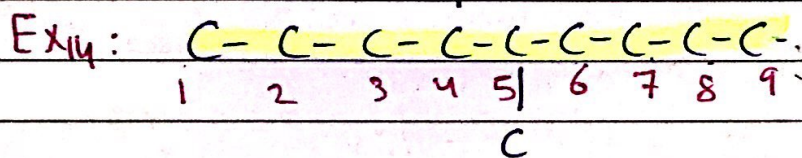


(1-Fluoro-6,6-dimethyl heptane)

* For alphabetical order ignore di
 Substituent نظر کی اولیٰ
 prefixes دون } → except iso



di
tri
tetra
Sec
tert



4-isopropyl-5-methyl nonane.