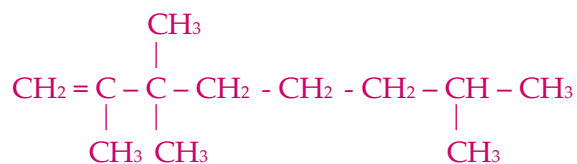


Výsledky a řešení.

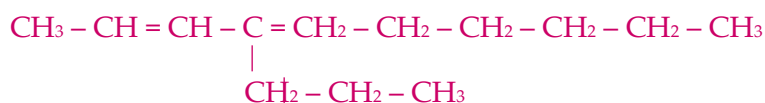
ALKENY:

Napište vzorce látek:

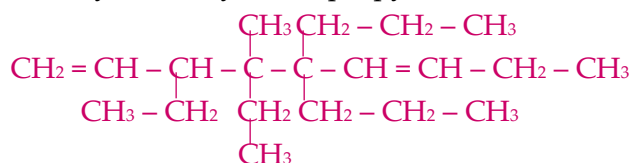
a) 2,3,3,7-tetramethyl-okt-1-en



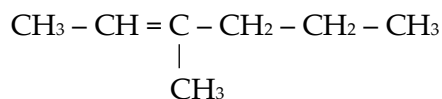
b) 4-propyl-deka-2,4-dien



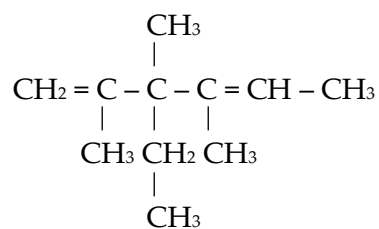
c) 3,4-diethyl-4-methyl-5,5-dipropyl-nona-1,6-dien



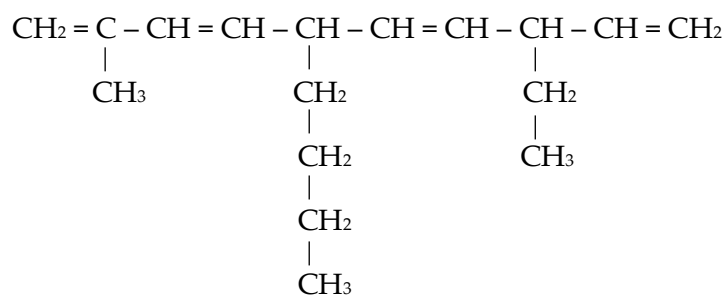
Nazvěte látky těchto vzorců:



3-methyl-hex-2-en



3-ethyl-2,3,4-trimethyl-hexa-1,4-dien

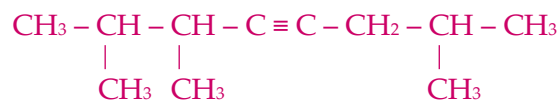


5-butyl-8-ethyl-2-methyl-deka-1,3,6,9-tetraen

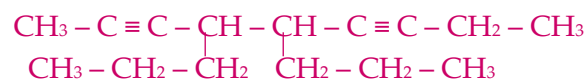
ALKYNY:

Napište vzorce látek:

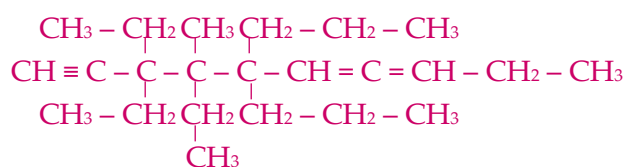
a) 2,3,7-trimethyl-okt-4-yn



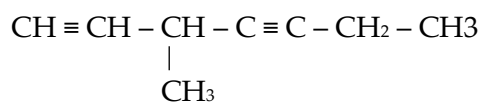
b) 4,5-dipropyl-nona-2,6-diyn



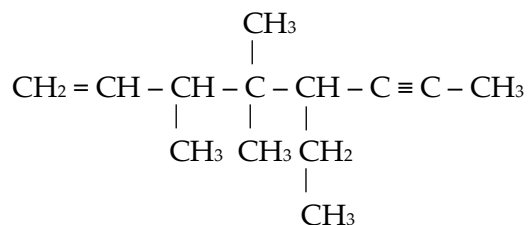
c) 3,3,4-triethyl-4-methyl-5,5-dipropyl-deka-6,7-dien-1-yn



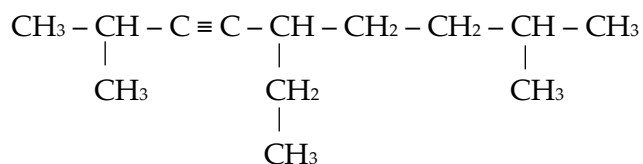
Nazvěte látky těchto vzorců:



3-methyl-hepta-1,4-diyn



5-ethyl-3,4,4-trimethyl-okt-1-en-6-yn



5-ethyl-2,8-dimethyl-non-3-yn

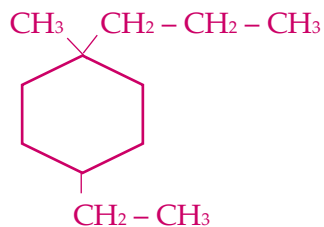
CYKLOALKANY:

Napiš vzorce těchto látek:

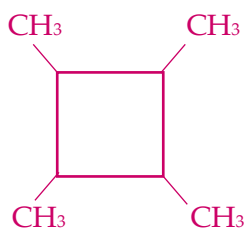
cyklopropan



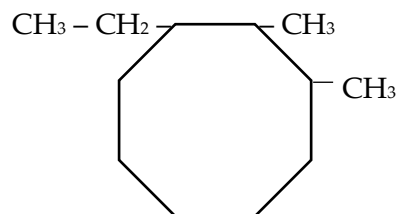
4-ethyl-1-methyl-1-propyl-cyklohexan



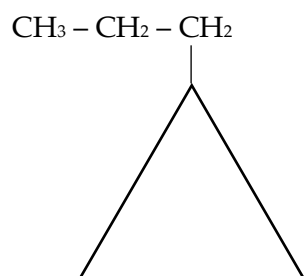
1,2,3,4-tetramethyl-cyklobutan



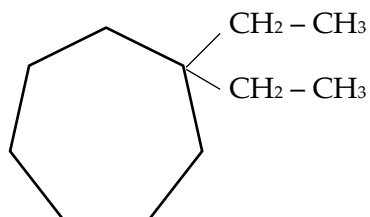
Napiš názvy cykloalkanů těchto vzorců:



1-ethyl-2,2-dimethyl-cyklooktan



propyl-cyklopropan

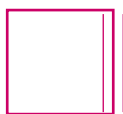


1,1-diethyl-cykloheptan

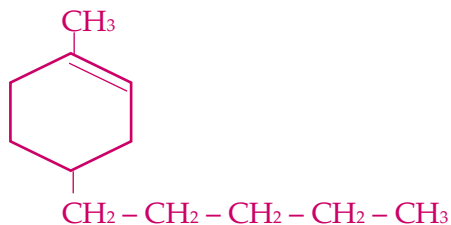
CYKLOALKENY A CYKLOALKYNY:

Napiš vzorce těchto látek:

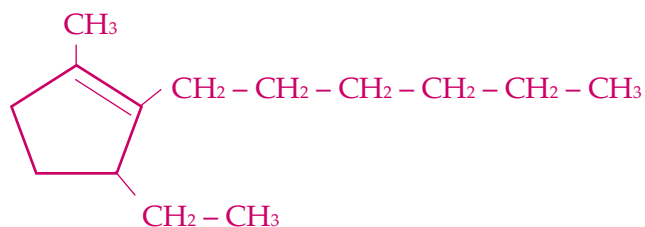
cyklobutyn



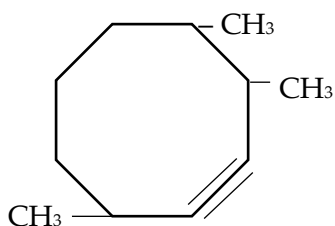
1-methyl-4-pentyl-cyklohex-1-en



3-ethyl-1-methyl-2-hexyl-cyklopent-1-en

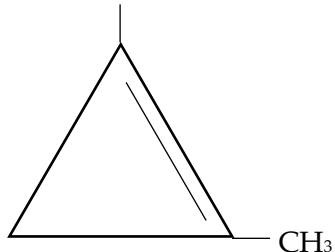


Napiš názvy uhlovodíků těchto vzorců:

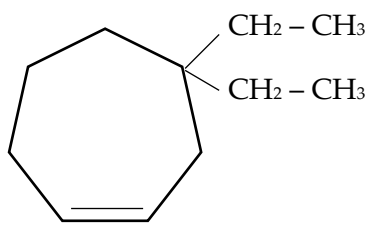


1,2,5-trimethyl-cyklookt-3-yn

$\text{CH}_3 - \text{CH}_2 - \text{CH}_2$



1-methyl-2-propyl-cykloprop-1-en

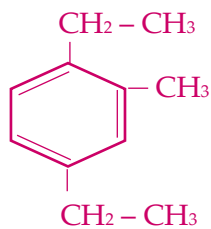


1,1-diethyl-cyklohept-3-yn

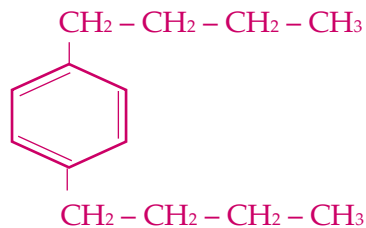
ARENÝ:

Napiš vzorce těchto arenů:

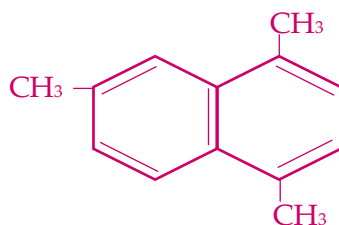
1,4-diethyl-2-methyl-benzen



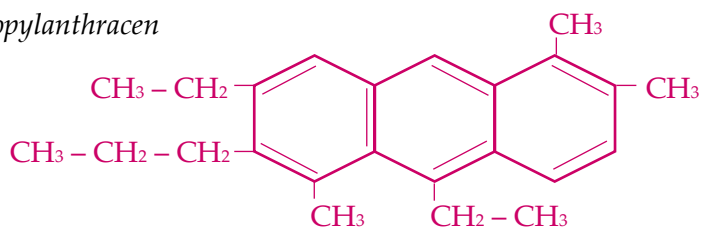
p-dibutylbenzen



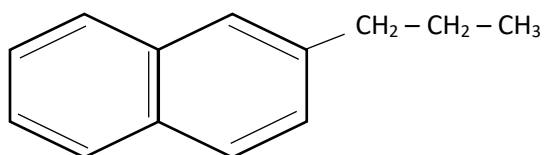
1,4,7-trimethylnaftalen



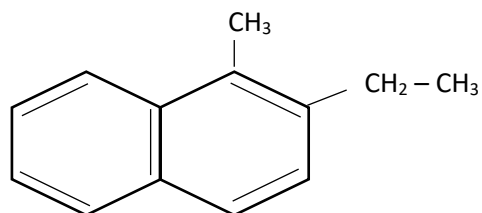
7,10-diethyl-1,2,5-trimethyl-6-propylanthracen



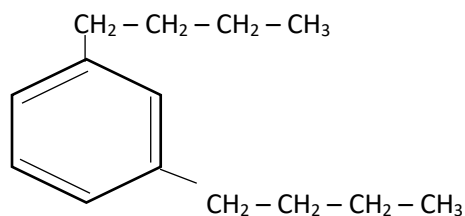
Pojmenuj areny:



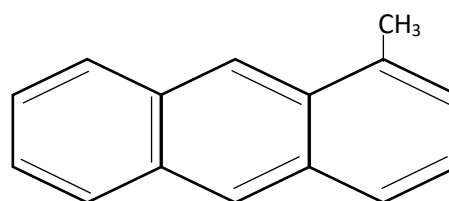
2-propylnaftalen nebo β-propylnaftalen



2-ethyl-1-methylnaftalen



1,3-dibutylbenzen nebo m-dibutylbenzen

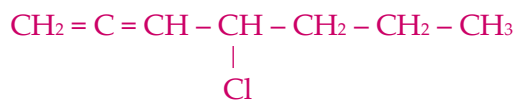


1-methylanthracen nebo α-methylanthracen

HALOGENERIVÁTY, NITROSODERIVÁTY A NITRODERIVÁTY:

Napište vzorce těchto látek:

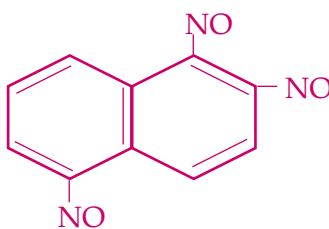
4-chlor- hepta-1,2-dien



bromcyklobutan



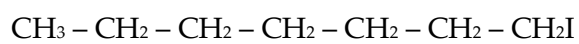
1,3,5-trinitrosoaftalen



dinitromethan



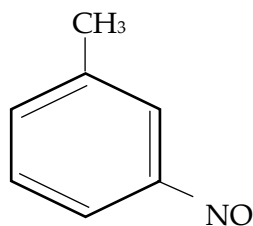
Nazvěte deriváty těchto vzorců:



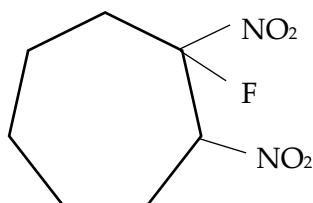
1-jodheptan



3,3-dibrom-but-1-yn



3-nitrosotoluen nebo *m*-nitrosotoluen



1-fluor-1,2-dinitrocykloheptan

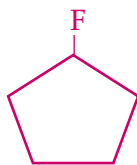
Nakreslete vzorce následujících sloučenin a pojmenujte je systematicky:

butylbromid



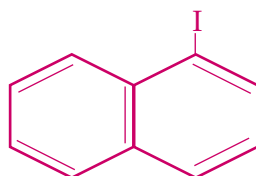
1-brombutan

cyklopentylfluorid



fluorcyklopentan

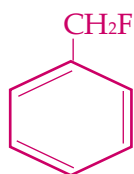
α-naftyljodid



1-jodnaftalen

(α-jodnaftalen)

benzylfluorid

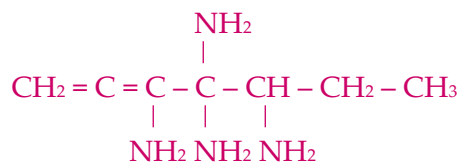


fenyl-fluormethan

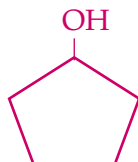
AMINY, ALKOHOLY A FENOLY:

Napište vzorce těchto látek:

hepta-1,2-dien-3,4,4,5-tetramin



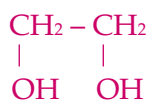
cyklopentanol



methanol



ethan-1,2-diol



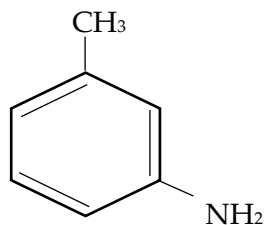
Nazvěte deriváty těchto vzorců:



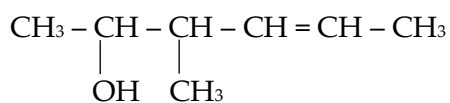
ethanol



but-1-yn-3-amin



toluen-3-amin



3-methyl-hex-4-en-2-ol

Nakreslete vzorce následujících sloučenin a pojmenujte je systematicky:

propylalkohol



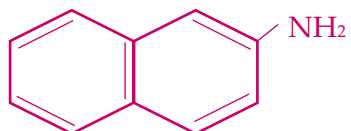
propan-1-ol

cyklobutylamin



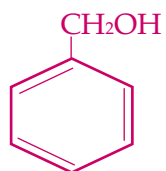
cyklobutanamin

β -naftylamin



naftalen-2-amin

benzylalkohol

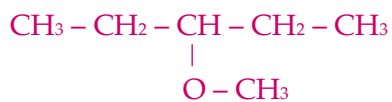


fenylmethanol

ETHERY:

Napiš vzorce těchto etherů:

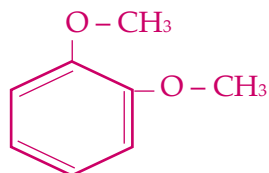
3-methoxypentan



methoxymethan



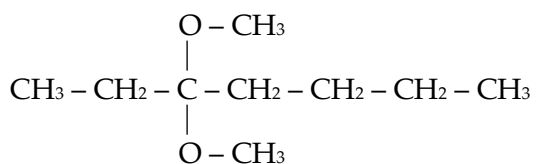
1,2-dimethoxybenzen



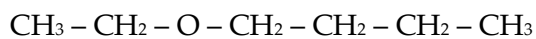
ethoxy-but-2-yn



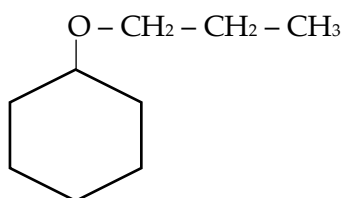
Pojmenuj ethery následujících vzorců:



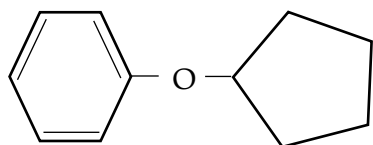
3,3-dimethoxyheptan



1-ethoxybutan



propoxycyklohexan



cyklopentoxybenzen

Pojmenuj tyto ethery systematicky:

dibutylether

1-butoxybutan

cyklobutyl(cyklopropyl)ether

cyklopropoxycyklobutan

fenyl(methyl)ether

methoxybenzen

difenylether

fenoxybenzen

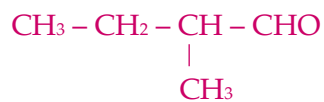
ALDEHYDY:

Napiš vzorce těchto aldehydů:

oktanal



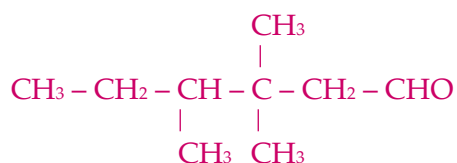
2-methyl-butanal



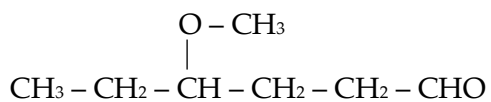
pentandial



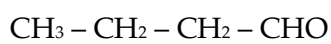
3,3,4-trimethyl-hexanal



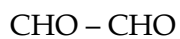
Pojmenuj aldehydy následujících vzorců:



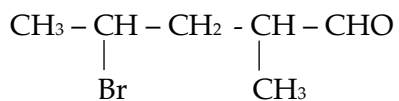
4-methoxy-hexanal



butanal



ethandial

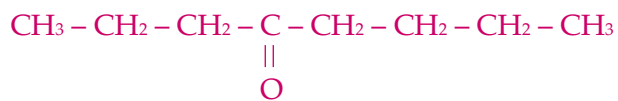


4-brom-2-methyl-pentanal

KETONY:

Napiš vzorce těchto ketonů:

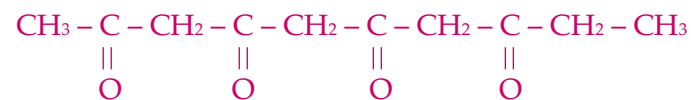
oktan-4-on



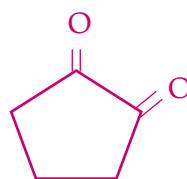
2-methyl-hexan-3-on



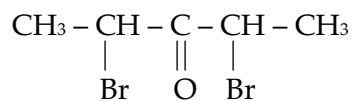
deka-2,4,6,8-tetraon



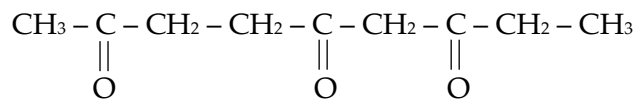
cyklopenta-1,2-dion



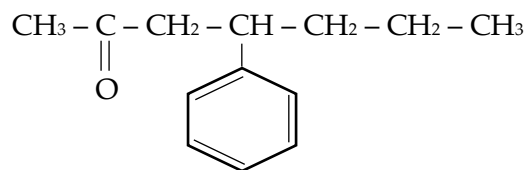
Pojmenuj ketony těchto vzorců:



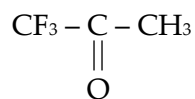
2,4-dibrom-pentan-3-on



nona-2,5,7-trion

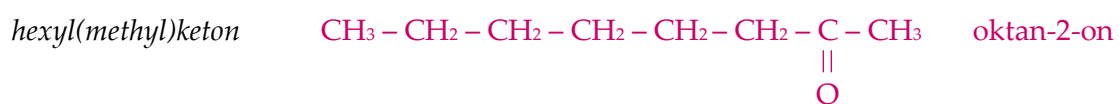
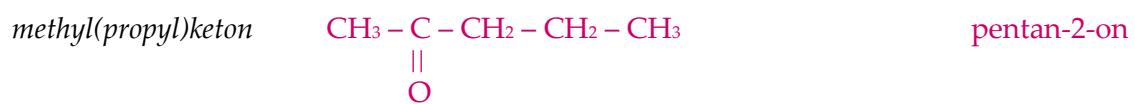
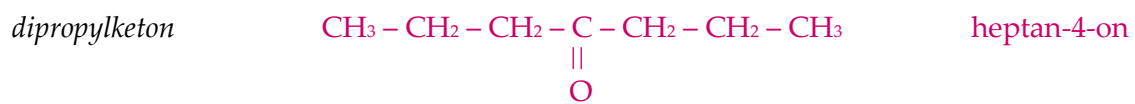
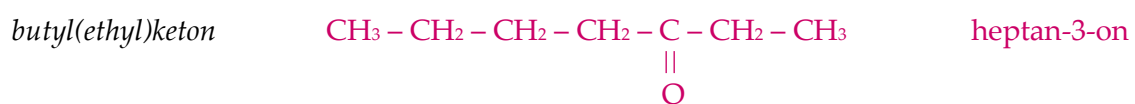


4-fenyl-heptan-2-on



1,2,3-trifluor-propanon

Napiš vzorec i systematický název těchto ketonů:



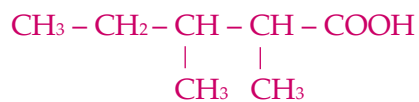
KARBOXYLOVÉ KYSELINY:

Napiš vzorce těchto karboxylových kyselin:

oktanová kyselina



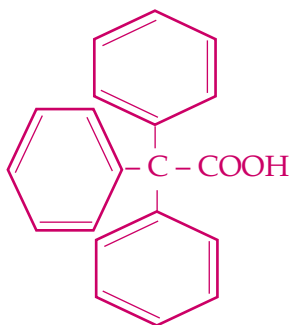
2,3-dimethyl-pentanová kyselina



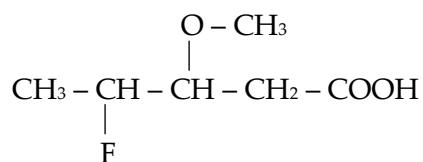
propandiová kyselina



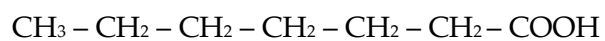
trifenyloctová kyselina



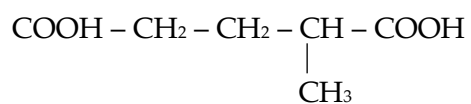
Pojmenuj kyseliny následujících vzorců:



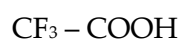
4-fluor-3-methoxypentanová kyselina



heptanová kyselina



2-methylpentandiová kyselina



trifluoroctová kyselina (trifluoethanová)

ESTERY KARBOXYLOVÝCH KYSELIN:

1. Nazvi jakýmkoliv přípustným způsobem následující estery:



butylbutanoát

butylbutyrát

butylester kyseliny butanové

butylester kyseliny máselné

máselnan butylnatý



methylmethanoát

methylformiát

methylester kyseliny methanové

methylester kyseliny mravenčí

mravenčan methylnatý



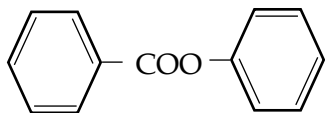
propylmethanoát

propylformiát

propylester kyseliny methanové

propylester kyseliny mravenčí

mravenčan propylnatý



fenylbenzoát

fenylester kyseliny fenylmethanové

fenylester kyseliny benzoové

benzoan fenylnatý

2. Napiš vzorce následujících esterů a pojmenuj je zbylými způsoby:

propylester kyseliny máselné



propylbutanoát

propylbutyrát

propylester kyseliny butanové

máselnan propylnatý

ethylacetát



ethylethanoát

ethylester kyseliny ethanové

ethylester kyseliny octové

octan ethylnatý

mravenčan hexylnatý



hexylmethanoát

hexylformiát

hexylester kyseliny methanové

hexylester kyseliny mravenčí

butylethanoát



butylacetát

butylester kyseliny ethanové

butylester kyseliny octové

octan butylnatý

benzoan methylnatý



methylbenzoát

methylester kyseliny fenylmethanové

methylester kyseliny benzoové

oktylester kyseliny octové



oktylethanoát

oktylacetát

oktylester kyseliny ethanové

octan oktylnatý

butyloxalát



butylethandioát

butylester kyseliny ethandiové

butylester kyseliny šťavelové

šťavelan butylnatý

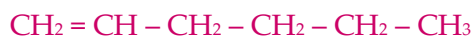
SOUHRNNÉ OPAKOVÁNÍ:

1. Napiš vzorce následujících uhlovodíků:

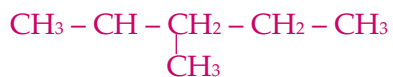
a) pentan



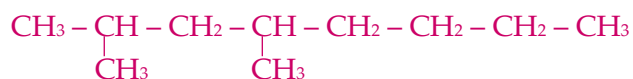
b) hex-1-en



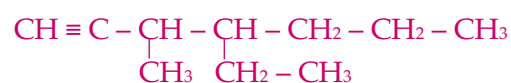
c) 2-methyl-pentan



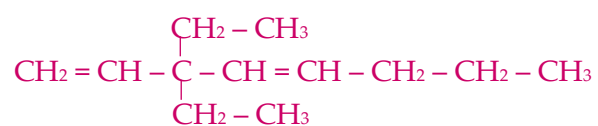
d) 2,4-dimethyl-oktan



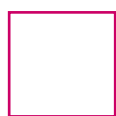
e) 4-ethyl-3-methyl-hept-1-yn



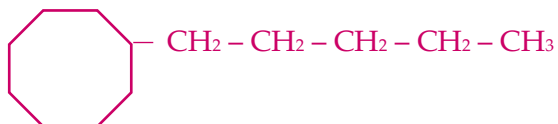
f) 3,3-diethyl-okta-1,4-dien



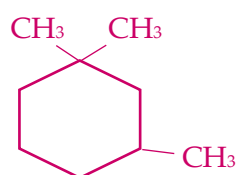
g) cyklobutan



h) pentyl-cyklooktan



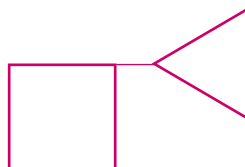
i) 1,1,3-trimethyl-cylohexan



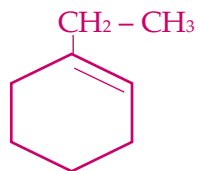
j) cyklopenten



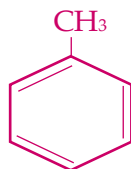
k) cyklopropyl-cyklobutan



l) 1-ethyl-cyklohex-1-en



m) Toluen



2. Pojmenuj uhlovodíky následujících vzorců:

a) $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$

butan

b) $\text{CH}_2 = \text{CH} - \underset{\text{CH}_3}{\text{CH}} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$

3-methyl-hex-1-en

c) $\text{CH} \equiv \text{C} - \text{C} \equiv \text{C} - \text{CH}_2 - \text{C} \equiv \text{C} - \text{CH}_2 - \text{CH}_3$

nona-1,3,6-triyn

d) $\text{CH}_3 - \text{CH}_2 - \underset{\text{CH}_2}{\underset{\text{CH}_3}{\text{CH}}} - \underset{\text{CH}_2}{\underset{\text{CH}_2}{\text{CH}}} - \text{CH}_2 - \underset{\text{CH}_2}{\underset{\text{CH}_2}{\text{CH}}} - \text{CH}_2 - \underset{\text{CH}_3}{\text{CH}} - \text{CH}_2 - \text{CH}_3$

3-ethyl-8-methyl-4,6-dipropyl-dekan

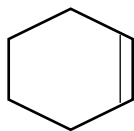
e) $\text{CH}_3 - \underset{\text{CH}_3}{\overset{\text{CH}_3}{\text{C}}} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$

2,2-dimethyl-pentan

f) $\text{CH}_2 = \underset{\text{CH}_3}{\text{C}} - \underset{\text{CH}_2}{\underset{\text{CH}_3}{\text{CH}}} - \text{CH} = \text{CH} - \underset{\text{CH}_2}{\underset{\text{CH}_3}{\text{CH}}} - \text{CH}_2 - \text{CH}_3$

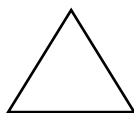
3,6-diethyl-2-methyl-okta-1,4-dien

g)



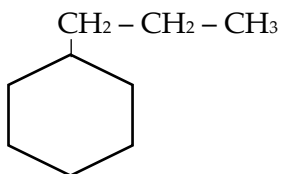
cyklohexen

h)



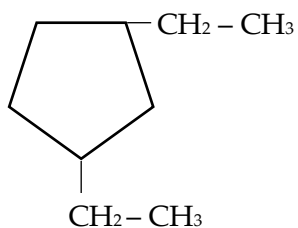
cyklopropan

i)



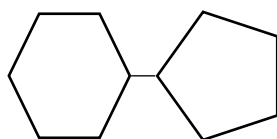
propyl-cyklohexan

j)



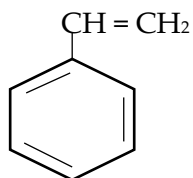
1,3-diethyl-cyklopentan

k)



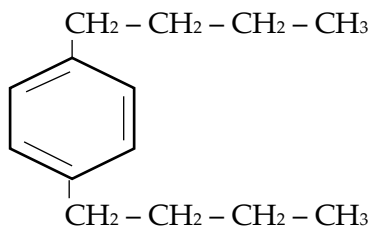
cyklopentyl-cyklohexan

l)



styren

m)



1,4-dibutylbenzen nebo *p*-dibutylbenzen

3. Napiš vzorce následujících derivátů uhlovodíků:

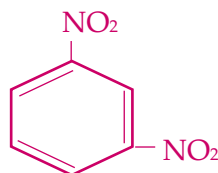
a) dichlormethan



b) ethanol



c) 1,3-dinitrobenzen



d) propanal



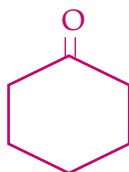
e) kyselina mravenčí



f) fluoroctová kyselina



g) cyklohexanon



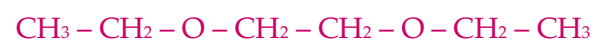
h) propylester kyseliny butanové



i) 3-methoxyhexan



j) 1,2-diethoxyethan



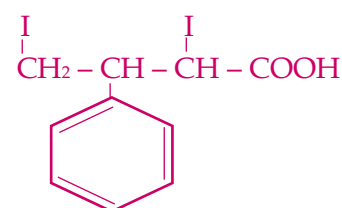
k) ethylpentanoát



l) kyselina šťavelová

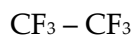


m) 3-fenyl-2,4-dijodmásečná kyselina



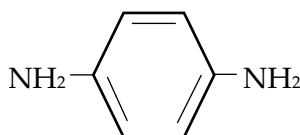
4. Napiš názvy derivátů uhlovodíků následujících vzorců:

a)



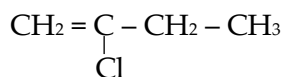
hexafluorethan

b)

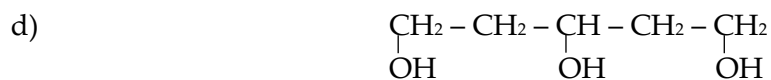


1,4-benzendiamin nebo *p*-benzendiamin

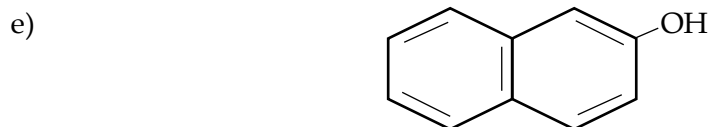
c)



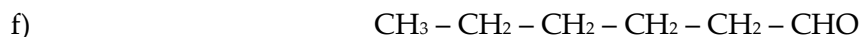
2-chlor-but-1-en



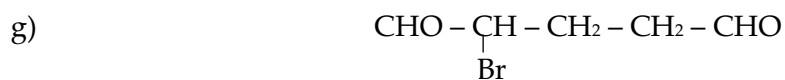
pentan-1,3,5-triol



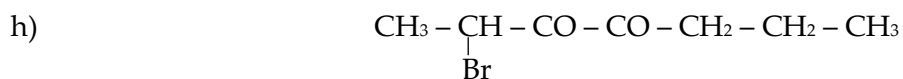
2-naftol nebo β -naftol



hexanal



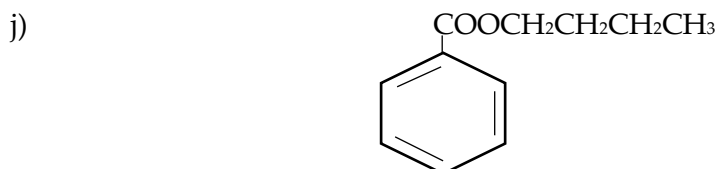
2-brom-pentandial



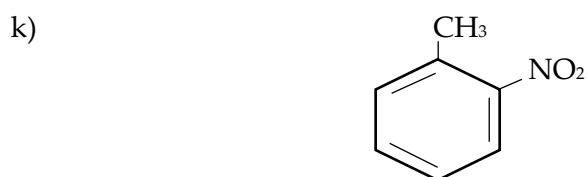
2-brom-heptan-3,4-dion



ethylmethanoát nebo ethylformiát nebo ethylester kyseliny methanové nebo ethylester kyseliny mravenčí nebo mravenčan ethylnatý

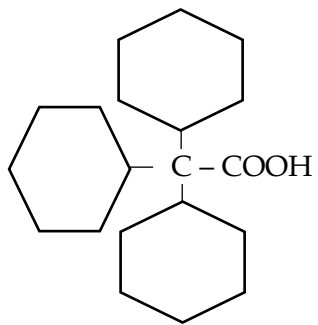


butylbenzoát nebo butylester kyseliny fenylmethanové nebo butylester kyseliny benzoové nebo benzoan butylnatý



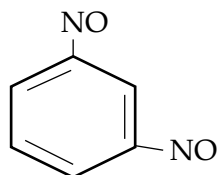
2-nitrotoluen nebo *o*-nitrotoluen

l)



kyselina tricyklohexylethanová nebo kyselina tricyklohexyloctová

m)



1,3-dinitrosobenzen nebo *m*-dinitrosobenzen