

SAMMANFATTNING AV NOMENKLATUR

REGLER FÖR SYSTEMATISK NAMNGIVNING:

Kolvätekedjan:

1. Längsta kolkedjan bildar basnamn.
2. Kolatomerna numreras från den ände som ger lägst nummer åt första substituenten.
3. Substituent anges med nummer och substituentnamn, t.ex. alkyl-grupp.
4. Substituenten i alfabetisk ordning.
5. Flera identiska substituenten anges med: di, tri, tetra,

Funktionella gruppen:

6. Funktionella gruppen ska ingå i längsta möjliga kolkedjan.
7. Numrering görs så funktionella gruppen får så lågt nummer som möjligt.
8. Om flera funktionella grupper ingår får den grupp vid änden av kolkedjan högsta prioritet.
9. (Numreringen av funktionella gruppen sätts framför grundnamnet alternativt direkt framför ändelsen ex. 1-Buten alt. But-1-en, den senare nyare regel som används i många böcker)

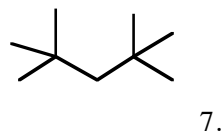
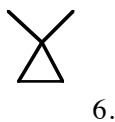
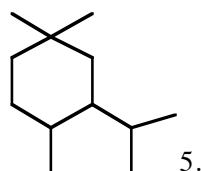
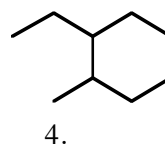
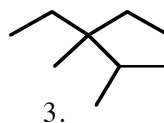
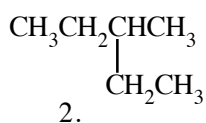
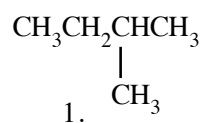
FUNKTIONELLA GRUPPER

	Ändelse	beteckning	Substituent	beteckning
Alkan	-an	R-H	-yl	- R
Alken	-en	R=-R	-enyl	
Alkyn	-yn	R≡R	-ynyl	
Aromat		Ar-H	"fenyl"	
Alkohol	-ol	R-OH	hydroxi-	- OH
Eter	-yl-yleter	R-O-R	alkoxi-	- OR
Aldehyd	-al	R-CHO	----	---
Keton	-on	R-CO-R	oxo-	
	även (-yl-ylketon)			
Karboxylsyra	-syra	R-COOH	---	---
Ester	-yl-oat	R-CO-OR	---	---
Amid	-anamid	R-CONH ₂ (R ₂)	---	---
Amin	-ylamin	R-NH ₂ (R ₂)	amino-	- NH ₂
Nitril	-nitril	R-CN	cyano-	- CN
Halogen(F,Cl,Br,I)	-----	R-X	ex. klor-	- Cl
Nitro	-----	R-NO ₂	nitro-	- NO ₂

Kursiv text mindre vanligt använt

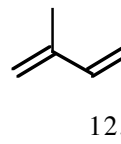
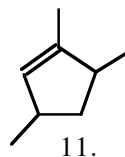
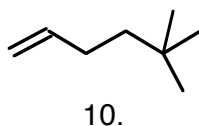
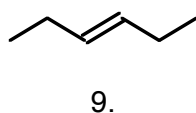
ÖVNINGSPROBLEM SYSTEMATISK NOMENKLATUR.

Alkaner:



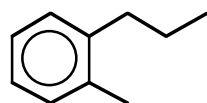
8. Ge strukturformler för samtliga isomerer med summaformeln C_7H_{16}

Alkener:

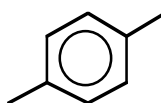


Aromater:

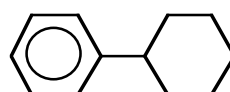
Ph_4C



14.



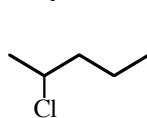
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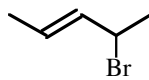
$\text{Ph}_2\text{C}=\text{CH}_2$

18.

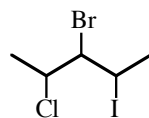
Alkylhalider, Alkohol, Fenol, Nitroföreningar:



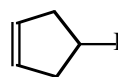
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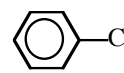
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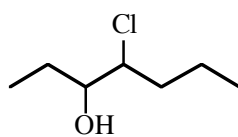
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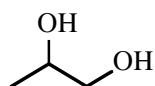
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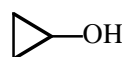
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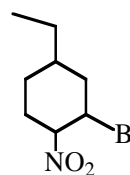
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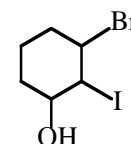
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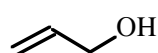
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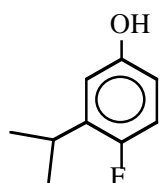
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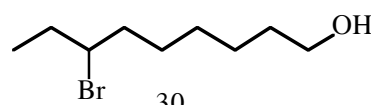
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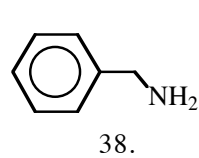
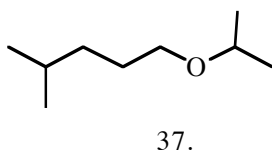
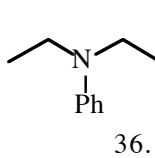
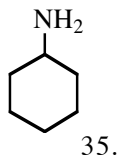
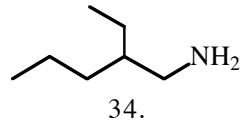
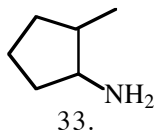
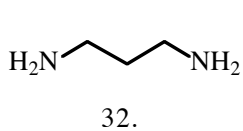
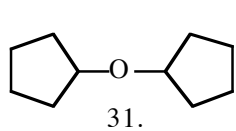


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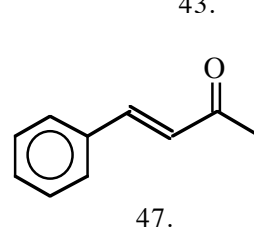
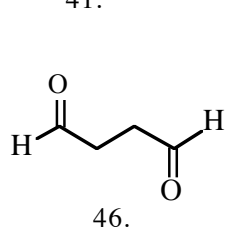
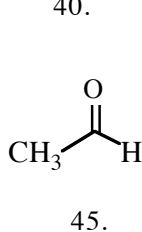
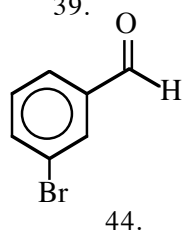
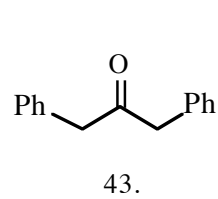
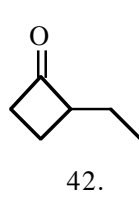
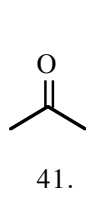
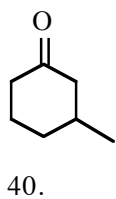
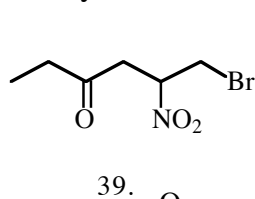


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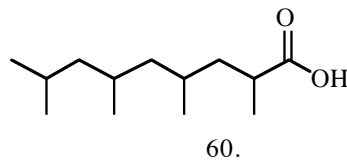
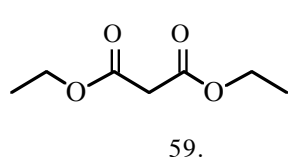
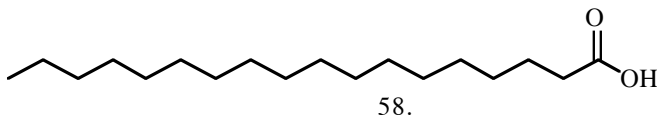
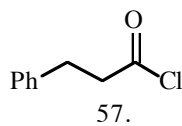
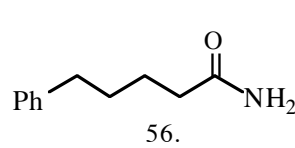
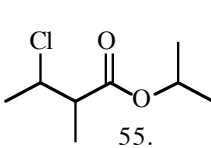
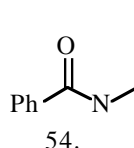
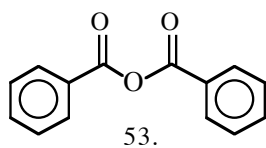
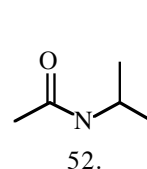
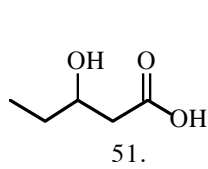
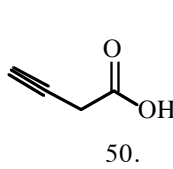
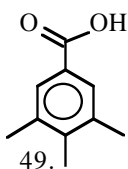
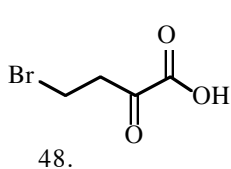
Etrar och Aminer



Aldehyder och Ketoner



Karboxylsydraderivat:



Svar till Övningsproblem Systematisk Nomenklatur

	Systematisk namn (alt. namn)	<i>Trivialnamn</i>
1	2-metylbutan	
2	3-metylpentan	
3	3-etyl-2,3-dimetylpentan	
4	3-etyl-4-metylhexan	
5	3-isopropyl-1,1,4-trimetylcyklohexan	
6	1,1-dimetylcyklopropan	
7	2,2,4,4-tetrametylpentan	
8	9 möjliga isomerer	
9	3-hexen (hex-3-en)	
10	5,5-dimetyl-1-hexen (5,5-dimetylhex-1-en)	
11	1,3,5-trimetylcyklopenten	
12	2-metyl-1,3-butadien (2-metylbuta-1,3-dien)	
13	tertrafenylmetan	
14	2-metylpropylbensen	
15	1,4-dimetylbensen	<i>p-xylen</i>
16	Cyklohexylbensen (alt Fenylcyklohexan)	
17	1,1-difenyleten	
18	2-klorpentan	
19	4-brom-2-penten (4-brompent-2-en)	
20	3-brom-2-jod-4-klorpentan,	
21	4-jodcyklopenten	
22	klorbensen	
23	4-klor-3-heptanol (4-klorheptan-3-ol)	
24	1,2-propandiol (propan-1,2-diol)	
25	cyklopropanol	
26	2-brom-4-etyl-1-nitrocyclohexan	
27	3-brom-2-jodcyklohexanol	
28	2-propen-1-ol (prop-2-en-1-ol)	<i>allylalkohol</i>
29	4-fluor-3-isopropylfenol	
30	7-brom-1-nonanol (7-bromnonan-1-ol)	
31	dicyklopentyleter	
32	3-aminopropylamin (alt. <i>1,3-diaminopropan</i>)	
33	2-metylcyklopentylamin	
34	2-etylpentylamin	
35	cyklohexylamin	
36	N,N-dietylfenylamin,	<i>N,N-dietylanilin</i>
37	isohexylisopropyleter	
38	fenylmetylamin	<i>bensylamin</i>
39	6-brom-5-nitro-3-hexanon (6-brom-5-nitrohexan-3-on)	
40	3-metylcyclohexanon	
41	2-propanon (propan-2-on)	<i>aceton</i>
42	2-etylcyklobutanon	
43	1,3-difenyl-2-propanon (1,3-difenylpropan-2-on)	
44	3-brombensaldehyd	
45	etanal	<i>acetaldehyd</i>
46	butandial	
47	4-fenyl-3-buten-2-on (4-fenylbut-3-en-2-on)	
48	4-brom-2-oxobutansyra	
49	3,4,5-trimetylbensoesyra	

- 50 3-butynsyra (but-3-ynsyra)
- 51 3-hydroxipentansyra
- 52 N-isopropyletanamid
- 53 bensoesyraanhydrid
- 54 N-metylbensamid
- 55 Isopropyl 3-klor-2-metylbutanoat
- 56 5-fenylpentanamid
- 57 3-fenylpropansyraklorid
- 58 oktadekansyra *sterarinsyra*
- 59 dietylpropandioat *dietylmalonat*
- 60 2,4,6,8-tetrametylnonansyra