

Advanced -illions: Tiers 7+

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[ILLION FUNCTION] - by Aarex

- $H_a = H_{a\#1}$
- $H_{a\#0} = 1,000^a$
- $b > 0$: $H_{a\#b} = H(1,000^a)\#(b-1)$
- $H(1,000)\#b = H(1)\#(b+1)$

Examples:

- $H_{34} = H_{34\#1} = H(1,000^{34})\#0 = 1,000^*1,000^{34} = 10^{105} = 1$ quattourtrigintillion
- $H_{2,013\#2} = H(1,000^{2,013})\#1 = 1,000^{(1,000^{2,013}+1)} = 10^{(3*10^6,039+3)} = 1$ microkillatrecillion

Illion Function can also be expressed in Hyper-E: $H_{a\#b} = 1,000E(1,000)a\#b$

And can be estimated approximately: $1,000^{^{(b+1)}} > H_{a\#b} > 1,000^{^b}$ (for $a < 333$)

[[List of Illions]]

[Tier 7] - Colorize

: [$10^{10^{10^{10^{10^{3000}}}}} - 10^{10^{10^{10^{10^{10^{10^{3000}}}}}}]$:
: [$H(1000)\#6 - H(1000)\#7$] :
: [$H(1)\#7 - H(1)\#8$] :

Tier 6 multiplicatives: Just replace the final tier 6 roots with specific roots below:

Index	Ones	Tens	Hundreds
1	heke	decise	hecatise
2	dyke	icoise	diacise
3	tryke	triacone	triacise
4	tetrke	tessaracone	tetracise
5	penke	pentecone	pentacise
6	hexke	hexecone	hexacise
7	eptike	hebdomecone	heptacise
8	oceke	ogdocone	octacise
9	eneke	enenecone	enneacise

No, there aren't base roots for tier 6 multiplicatives.

Here are roots of tier-7 -illions:

Index	Ones	Tens	Hundreds	Ones (additive end)	Tens (additive end)	Hundreds (additive end)
1	red	pink	violet	redona	(tens + -ona)	(remove last -t)
2	(o)rang	dik	diolet	(o)range		
3	(ye)llow	trik	triolet	(ye)llo		
4	lim	teetik	teetiolet	lime		
5	green	peetik	peetiolet	gree		
6	cyan	heexik	heexiolet	cya		
7	blu	heetik	heetiolet	blue		
8	purpl	(o)cctik	(o)cctiolet	purple		
9	magent	(e)nnik	(e)nniolet	mage		

one - ten - hundred

Index	Ones	Tens	Hundreds
1	redo	pi	
2	(o)ra	diki	
3	(ye)llo	triki	
4	limi	teeti	

5	gre	peeti
6	cyani	heexi
7	blui	heeti
8	puri	(o)cctki
9	magi	(e)nnki

Example: 34 -> limitrik-

Example 609 -> magiheexiolet-

Example 982 -> oracctkienniolet-

Tier 6 Index	Name	Tier 6 Index	Name
1,000	redillion	2,000	dyke-redillion
1,000+	redis-hapaxillion	2,000+	dyke-redis-hapaxillion
1,000*	ottaredillion	2,001	dyke-redona-ekapaxillion
1,001	redona-ekapaxillion	2,010	dyke-redona-decakisillion
1,001+	redona-ekapa-hepillion	3,000	tryke-redillion
1,002	redona-dyakisillion	4,000	tetrke-redillion
1,002+	redona-dyasyn-hepillion	5,000	penke-redillion
1,003	redona-tryakisillion	6,000	hexke-redillion
1,004	redona-tetrakisillion	7,000	epitke-redillion
1,005	redona-pentakisillion	8,000	oceke-redillion
1,010	redona-decakisillion	9,000	eneke-redillion
1,011	redona-hendecakisillion	10,000	decise-redillion
1,012	redona-dodecakisillion	11,000	decaheke-redillion
1,013	redona-decatriakisillion	12,000	decadyke-redillion
1,020	redona-icosakisillion	20,000	icoise-redillion
1,021	redona-icosahenakisillion	21,000	icosaheke-redillion
1,030	redona-triacontakisillion	30,000	triacone-redillion
1,100	redona-hectatonakisillion	31,000	triacontaheke-redillion

Tier 6 Index	Name
40,000	tesseracone-redillion
50,000	pentecone-redillion
60,000	hexecone-redillion
70,000	hebdomecone-redillion
80,000	ogdocone-redillion
90,000	enenecone-redillion
100,000	hectise-redillion
101,000	hectatonaheke-redillion
110,000	hectatonadecise-redillion
200,000	diacise-redillion
201,000	diacosiheke-redillion
300,000	triacise-redillion
400,000	tetracise-redillion
500,000	pentacise-redillion
600,000	hexacise-redillion
700,000	heptacise-redillion
800,000	octacise-redillion
900,000	ennacise-redillion
990,000	ennacosienenecone-redillion
999,000	ennacosienenecontaeneke-redillion

Tier 6 Index	Tier 7 Index	Name
1,000,000	2	orangillion
1,000,001		orange-ekapaxillion
1,000,010		orange-decakisillion
1,000,100		orange-hectatonakisillion
1,001,000		orange-redillion
1,001,001		orange-redona-ekapaxillion
1,002,000		orange-dykeredillion
1,100,000		orange-hectiseredillion
2,000,000		dykerangillion
100,000,000		hectiserangillion
1,000,000,000	3	yellowillion
1,000,001,000		yello-redillion
1,001,000,000		yello-orangillion
1,234,567,890		yello-diacositriacontatetrkerange-pentacosihexecontaeptikeredona-octacosienenecontakisillion
2,000,000,000		dykellowillion
100,000,000,000		hectisellowillion
1,000,000,000,000	4	limillion
1,001,000,000,000		lim-yellowillion
100,000,000,000,000		hectiselimillion
1,000,000,000,000,000	5	greenillion
	5*	hectisegreen-hectatonakisillion
	6	cyanillion
	7	bluillion
	8	purplillion
	9	magentillion
	10	pinkillion

Tier 7 Index	Name	Tier 7 Index	Name
10*	pinkona-ekapaxillion	70	heetikillion
10*	pinkona-redillion	80	occtikillion
11	redopinkillion	90	ennikillion
12	orapinkillion	100	violetillion
12*	dykerapinkillion	100*	viole-dykeillion
13	yellopinkillion	100*	viole-redillion
13*	dykellopinkillion	101	redovioletillion
14	limipinkillion	110	pivioletillion
15	grepinkillion	111	redopivioletillion
16	cyanipinkillion	120	dikivioletillion
17	bluipinkillion	200	dioletillion
18	puripinkillion	201	redodioletillion
19	magipinkillion	300	trioletillion
20	dikillion	400	teetioletillion
20*	dikona-ekapaxillion	500	peetioletillion
21	redodikillion	600	heexioletillion
22	oradikillion	700	heetioletillion

30	trikillion	800	occtioletillion
40	teetikillion	900	ennioletillion
50	peetikillion	990	ennikinnioletillion
60	heexikillion	999	maginnkinnioletillion

1000th tier-7 illion is **HYDRILLION**

[Tier 8] - Elemental
 :[H(1000)#7 - H(1000)#8]:

Index	Ones	Ones (+10)	Tens	Hundreds	Ones (additive end)	Tens (additive end)	Hundreds (additive end)
0		neo					
1	hydro	sodo	neo	krypto			
2	helo	mangeso	heneo	herypto			
3	litho	alumo	lineo	lirypto			
4	beryllo	silico	beryleneo	berypto			
5	boro	phospho	boneo	borypto			
6	carbo	sulf	caneo	carkpto			
7	nitro	chlo	nineo	nirypto			
8	oxygo	argo	oxoneo	oxypto			
9	fluoro	potasso	fluoneo	fluypto			

Tier 7 Index	Tier 8 Index	Name
1,000	1	hydrillion
1,000*		hydro`hapaxillion
1,001		hydro`redillion
1,001*		hydro`redona`hapaxillion
1,010		hydro`pinkillion
1,100		hydro`violetillion
2,000		orangehydrillion
10,000		pinkonahdrillion
100,000		violehydrillion
1,000,000	2	helillion
1,000,001		helo`redillion
1,001,000		helohydroillion
1,002,000		helo`orangehydroillion
1,010,000		helo`pinkonahydroillion
2,000,000		orangehelillion
1,000,000,000	3	lithillion
10,000,000,000		pinkonalithillion
10,000,100,000		pinkonalith`violethdrillion
1,000,000,000,000	4	beryllillion

[[Meta-Tiers]]

Due after 1,000 tier-8 illions (or 1,000 tier-1 illions)...

Base:

Index	Ones	Tens	Hundreds
1	m	vec	hect
2	du	icos	dohect
3	tr	triacont	triahect
4	tetr	tetracont	tetrahect
5	pent	pentacont	pentahect
6	hex	hexacont	hexahect
7	hept	heptacont	heptahect
8	oct	octacont	octahect
9	enne	enneacont	enneahect

Meta-Tier-0 roots:

Index	Ones	Tens	Hundreds
1	inf		
2	eter		
3	real		
4	equal		
5	aff		
6	celer		
7	ident		
8	vital		
9	immun		

Example: (start from nothing)

Previous Tier Index	Tier Index	Tiers	Meta-Tier 1 Index	Name
-	1	0	0	million
	10			decillion
	100			centillion
	999			novemnonagintanonagentillion
1,000	1	1		infillion
1,001				infi-million
1,010				infi-vecillion
1,100				infi-hectillion
2,000				dua`infillion
2,001				dua`infi-million
3,000				tra`infillion
4,000				tetra`infillion
10,000				veca`infillion
100,000				hecta`infillion
1,000,000	2			duinfillion
1,000,001				duinfi-million
1,001,000				duinfi-infillion
1,010,000				duinfi-veca`infillion
2,000,000				dua`duinfillion
10,000,000				veca`duinfillion
123,456,789				meicosetriahecta`duinfi-

				tetrepentacontehexahecta`infi- novemoctogintaseptuagentillion
1,000,000,000	3			trinfillion
	4			tetrinfillion
	10			vecinfillion
	100			hectinfillion
	999*			enneenneconteenneahectinfillion
1,000	1	2		eternillion
1,001				eterni-million
2,000				dua`eternillion