

LOWERCASE

straight>straight  
(udlijqhmna)R  
L(ublijphmnr)

nonnnnnono  
nonnunono  
nonnbnono  
nonninono  
nonnjnono  
nonnpnono  
nonuunono  
nonubnono  
nonuinono  
nonujnono  
nonupnono  
nonunnono  
nonqunono  
nonqbnono  
nonqinono  
nonqjnono  
nonqpnono  
nonqnnono  
nonjunono  
nonjbnono  
nonjinono  
nonjjnono  
nonjpnono  
nonjnnono  
nonnunono  
nonnbnono

nonninono  
nonnjnono  
nonnpnono  
nonnnnono  
nonaunono  
nonabnono  
nonainono  
nonajnono  
nonapnono  
nonannono  
noniunono  
nonibnono  
noniinono  
nonijnono  
nonipnono  
noninnono

straight>full round  
(udlijqhmna)R L  
(ceodqgð)  
nonuonono  
nonugnono  
nonuðnono  
nonqonono  
nonqgnono  
nonqðnono  
nonjonono  
nonjgnono  
nonjðnono  
nonionono  
nonignono

noniðnono  
nonnonono  
nonngnono  
nonnðnono  
nononono

(bpo)R L(ublijphmnr)  
nonounono  
nonobnono  
nonojonon  
nonoionon  
nonononon

straight>small round  
(udlijqhmna)R L(as)  
nonuanono  
nonusnono  
nonqanono  
nonqsnono  
nonjanono  
nonjsnono  
nonaanono  
nonasnono  
nonianono  
nonisnono  
nonlanono  
nonlsnono  
nonnanono  
nonnsnono

(s)R L(ublijphmnr)  
nonsunono

nonsbnono  
nonsnonon  
nonsjnonon  
nonslnonon

straight>void  
(udlijqhmna)R  
L(vwyzx)

nonavnono  
nonaynono  
nonaznono  
nonaxnono  
nonuvnono  
nonuynono  
nonuznono  
nonuxnono  
nonqvnono  
nonqwnono  
nonqynono  
nonqznono  
nonqxnono  
nonjvnono  
nonjynono  
nonjznono  
nonjxnono  
nonivnono  
noniynono  
noniznono  
nonixnono  
nonvnono

nonynono  
nonznono  
nonxnono

(kvwyzxr)R  
L(ublijphmnr)  
nonrunono  
nonrlnono  
nonrjnono  
nonrpnono  
nonrbnono

nonknono  
nonklnono  
nonkjonono  
nonkpnono  
nonkbnono

nonvunono  
nonvlnono  
nonvjnono  
nonvpnono  
nonvbnono

nonzunono  
nonzlnono  
nonzjnono  
nonzpnono  
nonzbnono

nonxunono  
nonxlnono

nonxjnono  
nonxpnono  
nonxbnono  
  
straight>open  
(udlijgqhmna)R L(afts)  
nonufnono  
nonuanono  
nonutnono  
nonusnono  
nonqfnono  
nonqanono  
nonqtnono  
nonqsnono  
nonjfnono  
nonjanono  
nonjtnono  
nonjsnono  
nonnfnon  
nonnanon  
nonntnon  
nonnsnon

(ctfre) R L(ublijphmnr)  
  
noncunono  
noncbnono  
noncnonon  
noncjnonon  
nonclonon  
noncpnonon  
nontunono

nontbnono  
nontnonon  
nontjnonon  
nontlonon  
nontpnonon  
nonfunono  
nonfbnono  
nonfnonon  
nonfjnonon  
nonflonon  
nonfpnonon  
nonrunono  
nonrbnono  
nonrnnonon  
nonrjnonon  
nonrlonon  
nonrpnonon  
noneunono  
nonebnono  
nonenonon  
nonejnonon  
nonelonon  
nonepnonon

full round >full round  
(bpo)R L (ceodqgð)

nonocnono  
nonoenono  
nonognono  
nonoðnono  
nonpdonon

nonoonon  
  
full > small  
(bpo)R L(as)  
nonoanono  
nonpaonon  
nonosnono  
nonpsonon  
  
(as) R L (ceodqgð)  
  
nonaonono  
nonaenono  
nonagnono  
nonadnono  
nonaðnono  
nonsonono  
nonsenono  
nonsgnono  
nonsdnono  
nonsðnono  
  
full > void  
(bpog)R L(vwyzx)  
nonovnono  
nonpvnnon  
nonbvnnono  
nongvnnono  
nonownnono  
nonpwonon  
nonbwnnono  
nongwnnono

nonoynono  
nonpyonon  
nonbynono  
nongynono  
nonoznono  
nonpzonon  
nonbznono  
nongznono  
nonoxnono  
nonpxnonon  
nonbxnono  
nongxnono  
nongxnono

(kvwyzx)R L (ceodqgđ)  
nonkonono  
nonvonono  
nonwoonon  
nonyoonon  
nonkđnono  
nonvđnono  
nonwđnonon  
nonyđnonon  
nonzđnonon  
nonxđnonon  
nonkdnono  
nonvdnono  
nonwdnonon  
nonydonon  
nonzdnnonon  
nonxdnonon

nonkgnono  
nonvgnono  
nonwgonon  
nonygonon  
nonzgnnonon  
nonxgnnonon  
nonkenono  
nonvenono  
nonweonon  
nonyeonon  
nonzenonon  
nonxenonon

full>open  
(bpo)R L(fts)  
nonofnono  
nonpfonon  
nonbfnono  
nonotnono  
nonptnonon  
nonbbtnono  
nonosnono  
nonpsonon  
nonbsnono  
nonoanono  
nonpaonon  
nonbanono  
  
(ctfre) R L (ceodqgđ)  
noncononon  
noncdnonon

noncgnnonon  
noncđnonon  
nontononon  
nontdnnonon  
nontgnnonon  
nontđnonon  
nonfononon  
nonfdnonon  
nonfgnnonon  
nonfđnonon  
nonrononon  
nonrdsnnonon  
nonrgnnonon  
nonrđnonon  
noneononon  
nonednonon  
nonegnnonon  
noneđnonon

small>small  
(s)R L(as)  
nonsanonon  
nonssnonon

small>void  
(s)R L(vwyzx)  
nonsvnonon  
nonswnnonon  
nonsynnonon  
nonsznnonon  
nonsxnnonon

(kvwyzx)R L(as)  
nonkanonon  
nonksnonon  
nonvanonon  
nonvsnonon  
nonwanonon  
nonwsnonon  
nonyanonon  
nonysnonon  
nonzanonon  
nonzsnnonon  
nonxanonon  
nonxsnonon

small>open  
(s)R L(fts)  
nonsfnonon  
nonstnonon  
nonssnonon

(ctfre) R L(as)  
noncanonon  
noncsnonon  
nontanonon  
nontsnnonon  
nonfanonon  
nonfsnonon  
nonranonon  
nonrsnonon  
noneanonon  
nonesnnonon

void>void  
(kvwyzx)R L(vwyzx)  
nonkvnnonon  
nonkwnnonon  
nonkynnonon  
nonkznnonon  
nonkxnnonon  
nonvvnnonon  
nonvwnnonon  
nonvynnonon  
nonvznnonon  
nonvxnnonon  
nonwvnnonon  
nonwwnnonon  
nonwynnonon  
nonwznnonon  
nonwxnnonon  
nonyvnnonon  
nonywnnonon  
nonyynnonon  
nonyznnonon  
nonyxnnonon  
nonzvnnonon  
nonzwnnonon  
nonzynnonon  
nonzznnonon  
nonzxnnonon  
nonxvnnonon  
nonxwnnonon  
nonxynnonon  
nonxznnonon  
nonxxnnonon

void>open  
(kvwyzx)R L(fts)  
nonkfnnonon  
nonktnnonon  
nonksnnonon  
nonvfnnonon  
nonvtnnonon  
nonvsnnonon  
nonwfnnonon  
nonwtnnonon  
nonwsnnonon  
nonyfnnonon  
nonytnnonon  
nonysnnonon  
nonzfnnonon  
nonztnnonon  
nonzsnnonon  
nonxfnnonon  
nonxtnnonon  
nonxsnnonon  
  
(ctfre) R L(vwyzx)  
noncvnnonon  
noncwnnonon  
noncynnonon  
noncznnonon  
noncxnnonon  
nontvnnonon  
nontwnnonon

nontynnonon  
nontznnonon  
nontxnnonon  
nonfvnnonon  
nonfwnnonon  
nonfynnonon  
nonfznnonon  
nonfxnnonon  
nonrvnnonon  
nonrwnnonon  
nonrynnonon  
nonrznnonon  
nonrxnnonon  
nonevnnonon  
newnnnonon  
noneynnonon  
noneznnonon  
nonexnnonon  
  
open>open  
(ctfre) R L(fts)  
noncfnnonon  
nonctnnonon  
noncsnnonon  
nontfnnonon  
nonttnnonon  
nontsnnonon  
nonffnnonon  
nonftnnonon  
nonfsnnonon  
nonrfnnonon  
nonrtnnonon

nonrsnonon  
nonefnnonon  
nonetnnonon  
nonesnnonon  
  
UPPERCASE  
  
straight>straight  
(HMNUIJ)R  
L(HMNUIKLPRBEFÐ)  
HOHHHHOH  
HOHHMHOH  
HOHHNHOH  
HOHHUHOH  
HOHHIHOH  
HOHHKHOH  
HOHHLHOH  
HOHHÐHOH  
  
HOHMHHOH  
HOHMMHOH  
HOHMNHOH  
HOHMUHOH  
HOHMIHOH  
HOHMKHOH  
HOHMLHOH  
HOHMÐHOH  
  
HOHNHHOH  
HOHNMHOH  
HOHNNNHOH

HOHNUHOH		L(HMNUIKLPREBFD)	HOHHAHOH
HOHNIHOH	straight>full round	HOHRHHOH	HOHNAHOH
HOHNKHOH	(HMNUIJ)R L (CGOQ)	HOHRNHOH	HOHUAHOH
HOHNLHOH	HOHHOHOH	HOHRUHOH	
HOHNÐHOH	HOHNOHOH	HOHRÐHOH	
	HOHUOHOH	HOHBHHOH	(WVYZXAKR)R
HOHUHHOH	HOHHCHOH	HOHBNHOH	L(HMNUIKLPREBFD)
HOHUMHOH	HOHNCHOH	HOHBUHOH	HOHWUHOH
HOHUNHOH	HOHUCHOH	HOHBÐHOH	HOHWHHOH
HOHUUHOH		HOHPHHOH	HOHVUHOH
HOHUIHOH	(DOQF)R	HOHPNHOH	HOHVHHOH
HOHUKHOH	L(HMNUIKLPREBFD)	HOHPUHOH	HOHYUHOH
HOHULHOH	HOHOUHOH	HOHPÐHOH	HOHYHHOH
HOHUÐHOH	HOHQUHOH		HOHZUHOH
	HOHDUHOH		HOHZHHOH
HOHIHHOH	HOHPUHOH	straight>void	HOHXUHOH
HOHIMHOH	HOHOHHOH	(HMNUIJ)R L(WVYZXA)	HOHXHHOH
HOHINHOH	HOHQHHOH	HOHHVHOH	HOHAUHOH
HOHIUHOH	HOHDHHOH	HOHNVHOH	HOHAHHOH
HOHIIHOH	HOHPHHOH	HOHUVHOH	HOHKUHOH
HOHIKHOH	HOHOÐHOH	HOHHWHOH	HOHKHHOH
HOHILHOH	HOHQÐHOH	HOHNWHOH	HOHRUHOH
HOHIÐHOH	HOHDÐHOH	HOHUWHOH	HOHRHHOH
	HOHPÐHOH	HOHHYHOH	
HOHJHHOH		HOHNYHOH	straight>open
HOHJMH OH	straight>small round	HOHUYHOH	(HMNUIJ)R L(TJS)
HOHJNHOH	(HMNUIJ)R L(S)	HOHHZHOH	OHOHTHOH
HOHJUHOH	OHOHSHOH	HOHNZHOH	OHOHTHOH
HOHJIHOH	OHOHNSHOH	HOHUZHOH	OHOUTHOH
HOHJKHOH	OHOUSHOH	HOHHXHOH	OHOHJHOH
HOHJLHOH		HOHNXHOH	OHOHJHOH
HOHJÐHOH	(RBF)R	HOHUXHOH	OHOUJHOH

OHOHSHOH  
OHO~~NS~~SHOH  
OHOUSHOH  
  
(CGSEFLTZ)R  
L(HMNUIKLPRBEFÐ)  
HOHCUHOH  
HOHCHHOH  
HOHCÐHOH  
HOH~~GU~~HOH  
HOHGHHOH  
HOH~~GD~~HOH  
HOHSUHOH  
HOHSHHOH  
HOHSÐHOH  
HOHEUHOH  
HOHEHHOH  
HOHEÐHOH  
HOH~~FU~~HOH  
HOHFHHOH  
HOHFÐHOH  
HOHLUHOH  
HOHLHHOH  
HOHLÐHOH  
HOHTUHOH  
HOHTHHOH  
HOHTÐHOH  
HOHZUHOH  
HOHZHHOH  
HOHZÐHOH

full round >full round  
(DOQ~~P~~)R L(CGOQ)  
HOH~~PO~~HOH  
HOHDOHOH  
HOHDCHOH  
HOHDQHOH  
HOHQOHOH  
HOHQCHOH  
HOHQQHOH  
  
full > small  
(DOQ~~P~~)R L(S)  
  
HOH~~P~~SHOH  
HOHDSHOH  
HOHOSHOH  
HOHQSHOH  
  
(RBP)R L(CGOQ)  
HOH~~RO~~HOH  
HOHBOHOH  
HOH~~PO~~HOH  
  
full > void  
(DOQ~~P~~)R L(WVYZXA)  
  
HOHDWHOH  
HOH~~PW~~HOH  
HOHOWHOH  
HOHQWHOH  
HOH~~P~~VHOH  
HOH~~DV~~HOH

HOHOVHOH  
HOHQVHOH  
HOHDYHOH  
HOH~~P~~YHOH  
HOHOYHOH  
HOHQYHOH  
HOH~~P~~ZHOH  
HOHDZHOH  
HOHOZHOH  
HOHQZHOH  
HOH~~PX~~HOH  
HOHDXHOH  
HOHOXHOH  
HOHQXHOH  
HOH~~P~~AHOH  
HOHDAHOH  
HOHOAHOH  
HOHQAAHOH  
  
(WVYZXAKR)R L(CGOQ)  
HOHWOH  
HOH~~VO~~HOH  
HOHYOH  
HOHZOH  
HOH~~XO~~HOH  
HOHAAHOH  
HOH~~KO~~HOH  
HOHROHOH  
  
full>open  
(DOQ)R L(TJSZ)

HOH~~DT~~HOH  
HOH~~P~~THOH  
HOHOTHOH  
HOHQTHOH  
HOHDJHOH  
HOH~~PJ~~HOH  
HOHOJHOH  
HOH~~QJ~~HOH  
HOHDSHOH  
HOH~~P~~SHOH  
HOH~~OS~~SHOH  
HOHQSHOH  
HOHDZHOH  
HOH~~P~~ZHOH  
HOHOZHOH  
HOHQZHOH  
  
(CSEFLTZG)R L(CGOQ)  
HOH~~CO~~HOH  
HOH~~SO~~HOH  
HOH~~EO~~HOH  
HOH~~FO~~HOH  
HOHLOHOH  
HOHTHOH  
HOHZOH  
HOH~~GO~~HOH  
  
small>small  
(RBP)R L(S)  
HOH~~RS~~HOH  
HOHBSHOH

HOHPSHOH

small>void  
(RBP)R L(WVYZXA)

HOHRWHOHOH  
HOHRVHOHOH  
HOHRYHOHOH  
HOHRZHOHOH  
HOH**RX**HOHOH  
HOHRAHOHOH  
HOHRÆHOHOH

HOHBWHOHOH  
HOHBVHOHOH  
HOHBYHOHOH  
HOHBZHOHOH  
HOHBXHOHOH  
HOHBAHOHOH  
HOHBÆHOHOH

HOH**PW**HOHOH  
HOHPVHOHOH  
HOHPYHOHOH  
HOHPZHOHOH  
HOH**PX**HOHOH  
HOH**PA**HOHOH  
HOHPÆHOHOH

(WVYZXAKR)R L(S)

HOHWSHOHOH  
HOHVSHOH  
HOHYSHOH  
HOHZSHOH  
HOHXSHOH  
HOH**AS**HOHOH  
HOHKSHOH  
HOHRSHOH

small>open  
(RBP)R L(TJSZ)

HOH**RT**HOHOH  
HOHRTHOHOH  
HOHRTHOHOH  
HOHRJHOHOH  
HOHRJHOHOH  
HOHRJHOHOH  
HOHRSHOH  
HOHRSHOH  
HOHRSHOH  
HOHRZHOHOH  
HOHRZHOHOH  
HOHRZHOHOH

HOH**BT**HOHOH  
HOHBTHOH  
HOHBTHOH  
HOHBTHOH

HOHBJHOHOH  
HOHBJHOHOH  
HOHBSHOHOH  
HOHBSHOHOH  
HOHBSHOHOH  
HOHBZHOHOH  
HOHBZHOHOH  
HOHBZHOHOH

HOH**PT**HOHOH  
HOHPTHOH  
HOHPTHOH  
HOHPJHOHOH  
HOHPJHOHOH  
HOHPJHOHOH  
HOHPSHOH  
HOH**PS**HOHOH  
HOHPSHOH  
HOHPZHOHOH  
HOHPZHOHOH  
HOHPZHOHOH

(CGSEFLTZ)R L(TJSZ)

HOH**CS**HOHOH  
HOHGSHOH  
HOHSSH OH  
HOHESH OH  
HOHFSHOH  
HOHLSHOH  
HOHTSHOH  
HOH**ZS**HOHOH

HOHCTHOHOH  
HOH**GT**HOHOH  
HOHSTHOHOH  
HOHETHOH  
HOHFTHOHOH  
HOH**LT**HOHOH  
HOH**TT**HOHOH  
HOHZTHOH

HOHCJHOHOH  
HOH**GJ**HOHOH  
HOH**SJ**HOHOH  
HOHEJHOHOH  
HOH**FJ**HOHOH  
HOHLJHOHOH  
HOH**TJ**HOHOH  
HOH**ZJ**HOHOH

HOHCZHOHOH  
HOHGZHOHOH  
HOHSZHOHOH  
HOH**EZ**HOHOH  
HOHFZHOHOH  
HOH**LZ**HOHOH  
HOHTZHOHOH  
HOHZZHOHOH

void>void (WVYZXA KR)R L(WVYZXA)	HOHZXHOH HZXZH HOHZAHOH HZAZH  HOHXWHO HXWXH HOHXVHOH HXVXH HOHXYHOH HXYXH HOHXZHOH HXZXH HOHXXHOH HXXXH HOHXAHOH HXAXH  HOHAWHOH HAWAH HOHAVHOH HAVAH HOHAYHOH HAYAH HOHAZHOH HAZAH HOHAXHOH HAXAH HOHAAHOH HAAAH	HOHZTHOH HOHZJHOH HOHZSHOH  HOHXTHOH HOHXJHOH HOHXSHOH  HOHATHOH HOHAJHOH HOHASHOH  HOHKTTHOH HKTXH HOHKJHOH HKJXH HOHKSHOH HKSXH  HOHRTTHOH HRTXH HOHRJHOH HRJXH HOHRSHOH HRSXH  (CSEFLTZ)R L(WVYZXA)  HOHCWHO HOHCYHOH HOHCVHOH HOHCZHOH HOHCXHOH HOHCAHOH  HOHSWHO HSWSH HOHSYHOH HSYSH	HOHSVHOH HSVSH HOHSZHOH HSZSH HOHSXHOH HSXSH HOHSAHOH HSASH  HOHEWHO HOHEYHOH HOHEVHOH HOHEZHOH HOHEXHOH HOHEAHOH  HOHFWHOH HOHFWHOH HOHFVHOH HOHFZHOH HOHFXHOH HOHFAHOH  HOHLWHO HOHLYHOH HOHLVHOH HOHLZHOH HOHLXHOH HOHLAHOH  HOHTWHO HTWTH HOHTYHOH HTYTH HOHTVHOH HTVTH HOHTZHOH HTZTH HOHTXHOH HTXTH HOHTAHOH HTATH
HOHWWHOH HWWWH HOHWVHOH HWVWH HOHWYHOH HWYWH HOHWZHOH HWZWH HOHWXHOH HWXWH HOHWAHOH HWAWH HOHWÆHOH HWÆWH	HOHYZHOH HYZYH HOHYXHOH HYXYH HOHYAHOH HYAYH		
HOHVWHO HVVVH HOHVYHOH HVYVH HOHVZHOH HVZVH HOHVXHOH HVXVH HOHVAHOH HVAVH	HOHWTHOH HOHWJHOH HOHWSHOH  HOHVTTHOH HOHVJHOH HOHVSHOH		
HOHYWHO HYWYH HOHYVHOH HYVYH HOHYWHO HYYYH HOHYZHOH HYZYH HOHYXHOH HYXYH HOHYAHOH HYAYH	HOHYTHOH HOHYJHOH HOHYSHOH		
HOHZWHO HZWZH HOHZVHOH HZVZH HOHZYHOH HZYZH HOHZZHOH HZZZH			



HOHZWHOH HZWZH	HOHTTHOH	nonHjnono	nonPpnono
HOHZYHOH HZYZH	HOHTJHOH	nonNjnono	nonDunono
HOHZVHOH HZVZH	HOHTSHOH	nonUjnono	nonDbnono
HOHZZHOH HZZZH	HOHTZHOH	nonHpnono	nonDjnono
HOHZXHOH HZXZH	HOHZTHOH	nonNpnono	nonDnnono
HOHZAHOH HZAZH	HOHZJHOH	nonUpnono	nonDpnono
	HOHZSHOH	nonHhnono	nonOunono
	HOHZZHOH	nonNhnono	nonObnono
		nonUhnono	nonOjnono
open>open	UPPERCASE >		nonOnnono
(CSEFLTZ)R L(TJZ)	Lowercase	straight>full round	nonOpnono
		(HMINUJ)R L (ceodqgð)	nonQunono
HOHCTHOH	straight>straight		nonQbnono
HOHCJHOH		nonHonono	nonQjnono
HOHCSHOH	(HMINUJ)R	nonNonono	nonQnnono
HOHCZHOH	L(ublijphmnr)	nonUonono	nonQpnono
HOHSTHOH		nonHdnono	
HOHSJHOH	nonHnnono	nonNdnono	
HOHSSHOH	nonNnnono	nonUdnono	straight>small round
HOHSZHOH	nonUnnono	nonHgnono	(HMNUIJ)R L(as)
HOHETHOH	nonHunono	nonNgnono	nonHanono
HOHEJHOH	nonNunono	nonUgnono	nonNanono
HOHESHOH	nonUunono	nonHðnono	nonUanono
HOHEZHOH	nonHbnono	nonNðnono	nonHsnono
HOHFTHOH	nonNbnono	nonUðnono	nonNsnono
HOHFJHOH	nonUbnono		nonUsnono
HOHFSHOH	nonHjnono	(DOQ)R L(ublijphmnr)	
HOHFZHOH	nonNjnono		(RBPG)R L(ublijphmnr)
HOHLTHOH	nonUjnono	nonFunono	
HOHLJHOH	nonHinono	nonFbnono	nonRunono
HOHLSHOH	nonNinono	nonFjnono	nonRbnono
HOHLZHOH	nonUinono	nonFnnono	nonRjnono

nonRnnono	nonNynono	nonZjnono	nonNfnono
nonRpnono	nonUynono	nonZnnono	nonUfnono
	nonHznono	nonZpnono	
nonBunono	nonNznono		nonHtnono
nonBbnono	nonUznono	nonXunono	nonNtnono
nonBjnono	nonHxnono	nonXbnono	nonUtnono
nonBnnono	nonNxnono	nonXjnono	
nonBpnono	nonUxnono	nonXnnono	nonHsnono
		nonXpnono	nonNsnono
nonPunono	(WVYZXAKR)R		nonUsnono
nonPbnono	L(ublijphmnr)	nonAunono	
nonPjnono		nonAbnono	(CSEFLTZ)R
nonPnnono	nonWunono	nonAjnono	L(ublijphmnr)
nonPpnono	nonWbnono	nonAnnono	
	nonWjnono	nonAprono	nonCunono
nonGunono	nonWnnono		nonCbnono
nonGbnono	nonWpnono	nonKunono	nonCjnono
nonGjnono		nonKbnono	nonCnnono
nonGnnono	nonVunono	nonKjnono	nonCpnono
nonGpnono	nonVbnono	nonKnnono	
	nonVjnono	nonKpnono	nonSunono
	nonVnnono		nonSbnono
straight>void	nonVpnono	nonRunono	nonSjnono
(HMNUIJ)R L(vwyzx)		nonRbnono	nonSnnono
	nonYunono	nonRjnono	nonSpnono
nonHvnono	nonYbnono	nonRnnono	
nonNvnono	nonYjnono	nonRpnono	nonEunono
nonUvnono	nonYnnono		nonEbnono
nonHwnono	nonYpnono	straight>open	nonEjnono
nonNwnono		(HMNUIJ)R L(fts)	nonEnnono
nonUwnono	nonZunono		nonEpnono
nonHynono	nonZbnono	nonHfnono	

nonFunono		nonRonono	nonOynono
nonFbnono	nonDonono	nonRdnono	nonOznono
nonFjnono	nonDdnono	nonRgnono	nonOxnono
nonFnnono	nonDgnono	nonRðnono	
nonFpnono	nonDðnono		nonQvnono
	nonFonono	nonBonono	nonQwnono
nonLunono	nonFdnono	nonBdnono	nonQynono
nonLbnono	nonFgnono	nonBgnono	nonQznono
nonLjnono	nonFðnono	nonBðnono	nonQxnono
nonLnnono	nonOonono		
nonLpnono	nonOdnono	nonPonono	(WVYZXAKR)R L
	nonOgnono	nonPdnono	(ceodqgð)
nonTunono	nonOðnono	nonPgnono	
nonTbnono	nonQonono	nonPðnono	nonWonono
nonTjnono	nonQdnono		nonWdnono
nonTnnono	nonQgnono	full > void	nonWgnono
nonTpnono	nonQðnono	(DOQ)R L(vwyzx)	nonWðnono
nonZunono	full > small	nonDvnono	nonVonono
nonZbnono	(DOQ)R L(as)	nonDwnono	nonVdnono
nonZjnono		nonDynono	nonVgnono
nonZnnono	nonDanono	nonDznono	nonVðnono
nonZpnono	nonDsnono	nonDxnono	
	nonFanono		nonYonono
nonZhnono	nonFsnono	nonFvnono	nonYdnono
nonZhnono	nonOanono	nonFwnono	nonYgnono
nonZhnono	nonOsnono	nonFynono	nonYðnono
nonZhnono	nonQanono	nonFznono	
nonZhnono	nonQsnono	nonFxnono	nonZonono
			nonZdnono
full round >full round	(RBP)R L (ceodqg)	nonOvnono	nonZgnono
(DOQ)R L (ceodqgð)		nonOwnono	nonZðnono

nonZonono	nonOfnonono	nonLonono	nonRwnono	nonZanono	
nonZdnono	nonOtnono	nonLdnono	nonRynono	nonZsnono	nonCsnono
nonZgnono	nonOsnono	nonLgnono	nonRznono	nonXanono	nonCanono
nonZðnonono		nonLðnonono	nonRxnono	nonXsnono	nonSsnono
	nonQfnono	nonTonono	nonBvnono	nonAanono	nonSanono
nonXonono	nonQtnono	nonTdnono	nonBwnono	nonAsnonono	nonEsnono
nonXdnonono	nonQsnono	nonTgnono	nonBynono	nonKanono	nonEanono
nonXgnono		nonTðnonono	nonBznono	nonKsnono	nonFsnono
nonXðnonono	(CSEFLTZ)R L		nonBxnono	nonRanono	nonFanono
	(ceodqğð)	nonZonono		nonRsnono	nonLsnono
nonAonono		nonZdnono	nonPvnono	small>open	nonLanono
nonAdnonono	nonConono	nonZgnono	nonPwnono	(RBPG)R L(fts)	nonTsnono
nonAgnono	nonCdnono	nonZðnonono	nonPynono		nonTanono
nonAðnonono	nonCgnono		nonPznono	nonRfnono	nonZsnono
	nonCðnonono	small>small	nonPxnonono	nonRtnono	nonZanono
nonKonono		(RBPG)R L(as)		nonRsnono	void>void
nonKdnono	nonSonono		nonGvnono		(WVYZXAKR)R
nonKgnono	nonSdnono	nonRanono	nonGwnono	nonBfnono	L(vwyzx)
nonKðnonono	nonSgnono	nonRsnono	nonGynono	nonBtnono	
	nonSðnonono	nonBanono	nonGznono	nonBsnono	nonWvnono
nonRonono		nonBsnono	nonGxnono		nonWwnono
nonRdnono	nonEonono	nonPanono		nonPfnono	nonWynono
nonRgnono	nonEdnonono	nonPsnono	(WVYZXAKR)R	nonPtnono	nonWznono
nonRðnonono	nonEgnono	nonGanono	L(as)	nonPsnono	nonWxnono
	nonEðnonono	nonGsnono			
full>open			nonWanono	nonGfnono	nonVvnono
(DOQ)R L(fts)	nonFonono		nonWsnono	nonGtnono	nonVwnono
	nonFdnonono	small>void	nonVanono	nonGsnono	nonVynono
nonDfnono	nonFgnono	(RBPG)R	nonVsnono		nonVznono
nonDtnono	nonFðnonono	L(vwyzx)	nonYanono	(CSEFLTZ)R	nonVxnono
nonDsnono		nonRvnono	nonYsnono	L(as)	

nonYvnono  
nonYwnono  
nonYynono  
nonYznono  
nonYxnono  
  
nonZvnono  
nonZwnono  
nonZynono  
nonZznono  
nonZxnono  
  
nonXvnono  
nonXwnono  
nonXynono  
nonXznono  
nonXxnono  
  
nonAvnono  
nonAwnono  
nonAynono  
nonAznono  
nonAxnono  
  
nonKvnono  
nonKwnono  
nonKynono  
nonKznono  
nonKxnono  
  
nonRvnono  
nonRwnono

nonRynono  
nonRznono  
nonRxnono  
  
void>open  
(WVYZXAKR)R L(fts)  
  
nonWfnono  
nonWtnono  
nonWsnono  
nonVfnono  
nonVtnono  
nonVsnono  
nonYfnono  
nonYtnono  
nonYsnono  
nonZfnono  
nonZtnono  
nonZsnono  
nonXfnono  
nonXtnono  
nonXsnono  
nonAfnono  
nonAtnono  
nonAsnono  
nonKfnono  
nonKtnono  
nonKsnono  
nonRfnono  
nonRtnono  
nonRsnono

(CSEFLTZ)R L(vwyzx)  
  
nonCvnono  
nonCwnono  
nonCynono  
nonCznono  
nonCxnono  
  
nonSvnono  
nonSwnono  
nonSynono  
nonSznono  
nonSxnono  
  
nonEvnono  
nonEwnono  
nonEynono  
nonEznono  
nonExnono  
  
nonFvnono  
nonFwnono  
nonFynono  
nonFznono  
nonFxnono  
  
nonLvnono  
nonLwnono  
nonLynono  
nonLznono  
nonLxnono  
  
nonTvnono  
nonTwnono  
nonTynono  
nonTznono  
nonTxnono  
  
nonZvnono  
nonZwnono  
nonZynono  
nonZznono  
nonZxnono  
  
open>open  
(CSEFLTZ)R L(fts)  
  
nonCfnono  
nonCtnono  
nonCsnono  
nonSfnono  
nonStnono  
nonSsnono  
nonEfnono  
nonEtnono  
nonEsnono  
nonFfnono  
nonFtnono  
nonF'snono  
nonLfnono  
nonLtnono  
nonLsnono  
nonTfnono  
nonTtnono

nonTsnono	nonbÐnono	noniVnono	
nonZfnono	nonðÐnono	nonjVnono	(kvwyzx)R
nonZtnono		nonuVnono	L(HMNUIKLPRBEFÐ)
nonZsnono	straight>small round (udlijgqhmna)R L(S)	nonaVnono	
		nonnYnono	nonkHnono
Lowercase > UPPERCASE	nonnSnono	nonqYnono	nonkUnono
	nonqSnono	noniYnono	nonkÐnono
	noniSnono	nonjYnono	nonvHnono
straight>full round (udlijgqhmna)R L (CGOQ)	nonjSnono	nonuYnono	nonvUnono
	nonuSnono	nonaYnono	nonvÐnono
	nonaSnono		nonwHnono
nonnOnono		nonnZnono	nonwUnono
nonqOnono	(s)R	nonqZnono	nonwÐnono
noniOnono	L(HMNUIKLPRBEF')	noniZnono	nonyHnono
nonjOnono		nonjZnono	nonyUnono
nonuOnono	nonsHnono	nonuZnono	nonyÐnono
nonaOnono	nonsUnono	nonaZnono	nonzHnono
			nonzUnono
			nonzÐnono
(bpo)R	straight>void	nonnXnono	nonxHnono
L(HMNUIKLPRBEFÐ)	(udlijgqhmna)R L(WVYZXA)	nonqXnono	nonxUnono
		noniXnono	nonxÐnono
nonoHnono		nonjXnono	
nonpHnono	nonnWnono	nonuXnono	straight>open (udlijgqhmna)R L(TJS)
nonbHnono	nonqWnono	nonaXnono	
nonðHnono	noniWnono		
nonoUnono	nonjWnono	nonnAnono	nonnTnono
nonpUnono	nonuWnono	nonqAnono	nonqTnono
nonbUnono	nonaWnono	noniAnono	noniTnono
nonðUnono		nonjAnono	nonjTnono
nonoÐnono	nonnVnono	nonuAnono	nonuTnono
nonpÐnono	nonqVnono	nonaAnono	nonaTnono

nonnJnono	nonoOonono	nonoZnono	noncOonono
nonqJnono	nonpOonono	nonpZnono	nonfOonono
noniJnono	nonbOonono	nonbZnono	nontOonono
nonjJnono	full > small	nonðZnono	nonrOonono
nonuJnono	(bpo)R L(S)	nonoXnono	
nonaJnono		nonpXnono	small>small
		nonbXnono	(s)R L(S)
nonnSnono	nonoSnono	nonðXnono	
nonqSnono	nonpSnono	nonoĂnono	nonsSnono
noniSnono	nonbSnono	nonpĂnono	
nonjSnono	(as) R L(CGOQ)	nonbĂnono	small>void
nonuSnono		nonðĂnono	(s)R L(WVYZXA)
nonaSnono	nonaOonono	full>open	
	nonsOonono	(bpoð)R L(TJS)	nonsWnono
(ctfr) R			nonsVnono
L(HMNUIKLPRBEF)	full > void	nonoTnono	nonsYnono
	(bpoð)R L(WVYZXA)	nonpTnono	nonsZnono
noncHnono	(kvwyzx)R L(CGOQ)	nonbTnono	nonsXnono
noncUnono		nonðTnono	nonsĂnono
nonfHnono	nonoWnono		
nonfUnono	nonpWnono	nonoJnono	(kvwyzx)R L(S)
nontHnono	nonbWnono	nonpJnono	
nontUnono	nonðWnono	nonbJnono	nonkSnono
nonrHnono	nonoVnono	nonðJnono	nonvSnono
nonrUnono	nonpVnono		nonwSnono
	nonbVnono	nonoSnono	nonySnono
	nonðVnono	nonpSnono	nonzSnono
	nonoYnono	nonbSnono	nonxSnono
full round >full round	nonpYnono	nonðSnono	
(bpoe)R L(CGOQ)	nonbYnono		small>open
	nonðYnono	(ctfr) R L(CGOQ)	(s)R L(TJS)

nonsTsnono	nonyYnono	nonzTnono	nonrYnono
nonsJnono	nonzYnono	nonxTnono	
nonsSsnono	nonxYnono		noncZnono
		nonkJnono	nontZnono
(ctfr) R L(S)	nonkZnono	nonvJnono	nonfZnono
	nonvZnono	nonwJnono	nonrZnono
noncSnono	nonwZnono	nonyJnono	
nontSnono	nonyZnono	nonzJnono	noncXnono
nonfSnono	nonzZnono	nonxJnono	nontXnono
nonrSnono	nonxZnono		nonfXnono
		nonkSnono	nonrXnono
void>void	nonkXnono	nonvSnono	
(kvwyzx)R L(WVYZXA)	nonvXnono	nonwSnono	noncAnono
	nonwXnono	nonySnono	nontAnono
nonkWnono	nonyXnono	nonzSnono	nonfAnono
nonvWnono	nonzXnono	nonxSnono	nonrAnono
nonwWnono	nonxXnono		
nonyWnono		(ctfr) R L(WVYZXA)	
nonzWnono	nonkAnono	noncWnono	open>open
nonxWnono	nonvAnono	nontWnono	(ctfr) R L(TJS)
	nonwAnono	nonfWnono	
nonkVnono	nonyAnono	nonrWnono	noncTnono
nonvVnono	nonzAnono		nontTnono
nonwVnono	nonxAnono	noncVnono	nonfTnono
nonyVnono		nontVnono	nonrTnono
nonzVnono	void>open	nonfVnono	
nonxVnono	(kvwyzx)R L(TJS)	nonrVnono	noncJnono
			nontJnono
nonkYnono	nonkTnono	noncYnono	nonfJnono
nonvYnono	nonvTnono	nontYnono	nonrJnon
nonwYnono	nonwTnono	nonfYnono	
	nonyTnono		noncSnono



nontSnono	straight>small round	∘∘71∘∘	∘∘∘∘∘∘
nonfSnono	(1) R L(98)	∘∘21∘∘	∘∘∘6∘∘
nonrSnono			∘∘9∘∘∘
	∘∘19∘∘	straight>open	∘∘96∘∘
	∘∘18∘∘	(1) R L(239)	
Figures			full round >small
	111911	111211	round
straight > straight	111811	111311	(∘9) R L(98)
∘∘11∘∘		111911	
111111	(8356) R L (1)		11∘911
HH11HH		∘∘12∘∘	11∘811
nn11nn	∘∘81∘∘	∘∘13∘∘	119911
	∘∘31∘∘	∘∘19∘∘	119811
straight>full round	∘∘51∘∘		
(1) R L (∘6)	∘∘61∘∘	(654)R L(1)	∘∘∘9∘∘
			∘∘∘8∘∘
∘∘1∘∘∘	118111	116111	∘∘99∘∘
∘∘16∘∘	113111	115111	∘∘98∘∘
	115111	114111	
111∘11	116111		L(98) L (∘6)
111611		∘∘61∘∘	
	straight>void	∘∘51∘∘	119∘11
	(1) R L(4)	∘∘41∘∘	119611
(∘9) R L (1)			118∘11
	111411	full round >full round	118611
∘∘91∘∘	∘∘14∘∘	(∘9) R L (∘6)	
∘∘∘1∘∘			∘∘9∘∘∘
	(72)R L (1)	11∘∘11	∘∘96∘∘
119111		11∘611	∘∘8∘∘∘
11∘111	117111	119∘11	∘∘86∘∘
	112111	119611	
			full > void

(09) R L(4)	000300	116811	
	000900		007900
110411	009200	008900	002900
119411	009300	008800	007800
	009900	003900	002800
000400		003800	
009400	(654)R L (06)	005900	small > open
		005800	(8356) R L(239)
	116011	006900	
(72)R L (06)	116611	006800	118211
	115011		118311
117011	115611		118911
117611	114011	small > void	
112011	114611	(8356) R L(4)	113211
112611			113311
	006000	118411	113911
007000	006600	113411	
007600	005000	115411	115211
002000	005600	116411	115311
002600	004000		115911
	004600	008400	
full > open		003400	116211
(09) R L(239)	small > small	005400	116311
	(8356) R L(98)	006400	116911
110211	118911		008200
110311	118811	(72)R L(98)	008300
110911	113911		008900
119211	113811	117911	
119311	115911	112911	003200
119911	115811	117811	003300
	116911	112811	003900

			fh, fk, fl, fb, fi, fj, ff, ft
005200	007400	open > open	
005300	002400	(654)R L(239)	L4 F'7 6T T7
005900			
	void > open	116211	
006200	(72)R L(239)	116311	
006300		116911	
006900		115211	
	117211	115311	
	117311	115911	
	117911	114211	
	112211	114311	
(654)R L(98)	112311	114911	
	112911		
116911			
116811	007200	006200	
115911	007300	006300	
115811	007900	006900	
114911	002200	005200	
114811	002300	005300	
	002900	005900	
006900		004200	
006800		004300	
005900		004900	
005800	(654)R L(4)		
004900			
004800	116411	collisions U>L & L>U	
	115411		
void > void	114411	fT fY	
(72)R L(4)		Qj Qy Qp Qj F'l tA gT gV	
	006400	gX	
117411	005400		
112411	004400	jj, jy, qj, qg, gg, gp, gy,	

