

LOWERCASE

straight>straight  
(udlijqhmna)R  
L(ublijphmnr)

nonnnnnono  
nonnnunono  
nonnbnono  
nonnninono  
nonnnjnono  
nonnpnono  
nonuunono  
nonubnono  
nonuinono  
nonujnono  
nonupnono  
nonunnnono  
nonqunono  
nonqbnono  
nonqinono  
nonqjnono  
nonqpnono  
nonqnnono  
nonjunono  
nonjbnono  
nonjinono  
nonjjnono  
nonjpnono  
nonjnnono  
nonnunono  
nonnbnono

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

straight>full round  
(udlijqhmna)R L  
(ceodqgđ)  
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  
nonsnnonon  
nonsjnnonon  
nonslnnonon

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

non**tb**nono  
nontnonon  
nontjnonon  
nont**l**onon  
nontpnonon  
non**f**unono  
nonfbnono  
non**f**nnonon  
nonfjnonon  
non**f**lonon  
nonfpnonon  
nonrunono  
nonrbnono  
nonrnonon  
nonrjnonon  
nonrlonon  
nonrpnnonon  
non**e**unono  
non**e**bnono  
nonenonon  
nonejnonon  
nonelonon  
nonepnnonon

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

nonocnono  
nono**e**nono  
nono**g**nnono  
nonoðnono  
non**p**donon

nonooonon

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  
non**g**vnnono  
nonownono  
nonpwonon  
nonbwnono  
nongwnono

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

(kvwyx)R L (ceodqgđ)  
nonknono  
nonvonono  
nonwoonon  
nonyoonon  
nonkđnono  
nonvđnono  
nonwđnonon  
nonyđnonon  
nonzđnonon  
nonxđnonon  
nonkdnono  
nonvđnono  
nonwdnonon  
nonydonon  
nonzđnonon  
nonxdnonon

nonkgnono  
nonvgnono  
nonwgonon  
nonygonon  
nonzgnonon  
nonxgnonon  
nonkenono  
nonvenono  
nonweonon  
nonyeonon  
nonzenonon  
nonxenonon

full>open  
(bpo)R L(fts)

nonofnono  
nonpfonon  
nonbfnono  
nonotnono  
nonpptonon  
nonbbtnono  
nonosnono  
nonppsonon  
nonbsnono  
nonoanonon  
nonpaanonon  
nonbanono

(ctfre) R L (ceodqgđ)  
noncononon  
noncdnonon

noncgnonon  
noncđnonon  
nontononon  
nontdnonon  
nontgnonon  
nontđnonon  
nonfononon  
nonfdnonon  
nonfgnonon  
nonfđnonon  
nonrononon  
nonrđnonon  
nonrgnonon  
nonrđnonon  
noneononon  
nonednonon  
nonegnonon  
noneđnonon

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

small>void  
(s)R L(vwyx)  
nonsvnonon  
nonswnonon  
nonsynonon  
nonsznnonon  
nonsxnnonon

(kvwyx)R L(as)  
nonkanonon  
nonksnonon  
nonvanonon  
nonvsnonon  
nonwanonon  
nonwsnonon  
nonyanonon  
nonsynonon  
nonzanonon  
nonzsnonon  
nonxanonon  
nonxsnonon

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

(ctfre) R L(as)  
noncanonon  
noncsnonon  
nontanonon  
nontsnonon  
nonfanonon  
nonfsnonon  
nonranonon  
nonrsnonon  
noneanonon  
nonesnonon

void>void  
(kvwyzx)R L(vwyzx)  
nonkvnnonon  
nonkwnnonon  
nonkynnonon  
nonkznnonon  
nonkxnnonon  
nonvvnonon  
nonvwnnonon  
nonvynnonon  
nonvznnonon  
nonvxznnonon  
nonwvnnonon  
nonwwnnonon  
nonwynnonon  
nonwznnonon  
nonwxznnonon  
nonyvnnonon  
nonywnnonon  
nonyynnonon  
nonyznnonon  
nonyxnnonon  
nonzvnnonon  
nonzwnnonon  
nonzynnonon  
nonzznnonon  
nonzxznnonon  
nonxvnnonon  
nonxwnnonon  
nonxynnonon  
nonxzznnonon  
nonxxznnonon

void>open  
(kvwyzx)R L(fts)  
nonkfnnonon  
nonktnnonon  
nonksnnonon  
nonvfnnonon  
nonvttnnonon  
nonvsnnonon  
nonwfnnonon  
nonwttnnonon  
nonwsnnonon  
nonyfnnonon  
nonyttnnonon  
nonysnnonon  
nonzfnnonon  
nonzttnnonon  
nonzsnnonon  
nonxfnnonon  
nonxttnnonon  
nonxsnnonon  
  
(ctfre) R L(vwyzx)  
noncvnnonon  
noncwnnonon  
noncynnonon  
noncznnonon  
noncxznnonon  
nontvnnonon  
nontwnnonon

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

nonrsnnonon  
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  
HOHNNHOH

HOHN<sup>U</sup>HOH  
HOH<sup>N</sup>IHOH  
HOHNKHOH  
HOHNLHOH  
HOHN<sup>Ð</sup>HOH

HOHUHHOH  
HOHUMHOH  
HOHUNHOH  
HOH<sup>U</sup>HOH  
HOHUIHOH  
HOHUKHOH  
HOHULHOH  
HOHU<sup>Ð</sup>HOH

HOHIHHOH  
HOHIMHOH  
HOHINHOH  
HOHIUHOH  
HOHIIHOH  
HOHIKHOH  
HOHIL<sup>HOH</sup>  
HOHI<sup>Ð</sup>HOH

HOHJHHOH  
HOHJMH<sup>HOH</sup>  
HOHJNHOH  
HOHJUHOH  
HOHJIHOH  
HOHJKHOH  
HOHJLHOH  
HOHJ<sup>Ð</sup>HOH

straight>full round  
(HMNUIJ)R L (CGOQ)  
HOHHOHOH  
HOHN<sup>O</sup>HOH  
HOHUOHOH  
HOHHCHOH  
HOHNCHOH  
HOHUCHOH

(DOQ<sup>Ð</sup>)R  
L(HMNUIKLP<sup>R</sup>BEF<sup>Ð</sup>)  
HOHO<sup>U</sup>HOH  
HOHQ<sup>U</sup>HOH  
HOHD<sup>U</sup>HOH  
HOH<sup>Þ</sup>UHOH  
HOHOHHOH  
HOHQ<sup>H</sup>HOH  
HOHD<sup>H</sup>HOH  
HOH<sup>Þ</sup>H<sup>HOH</sup>  
HOH<sup>O</sup><sup>Ð</sup>HOH  
HOHQ<sup>Ð</sup>HOH  
HOHD<sup>Ð</sup>HOH  
HOH<sup>Þ</sup><sup>Ð</sup>HOH

straight>small round  
(HMNUIJ)R L(S)  
OHOHSHOH  
OHONSHOH  
OHO<sup>U</sup>SHOH  
  
(RBP)R

L(HMNUIKLP<sup>R</sup>BEF<sup>Ð</sup>)  
HOHRHHOH  
HOHRNHOH  
HOHRUHOH  
HOHR<sup>Ð</sup>HOH  
HOHBHHOH  
HOHBNHOH  
HOHBUHOH  
HOHB<sup>Ð</sup>HOH  
HOHPHHOH  
HOHPNHOH  
HOHPUHOH  
HOH<sup>Þ</sup><sup>Ð</sup>HOH

straight>void  
(HMNUIJ)R L(WVYZXA)  
HOHHVHOH  
HOHNVHOH  
HOHUVHOH  
HOHHW<sup>HOH</sup>  
HOHNW<sup>HOH</sup>  
HOHUW<sup>HOH</sup>  
HOHHYHOH  
HOHNYHOH  
HOHUYHOH  
HOHHZHOH  
HOHNZHOH  
HOHUZHOH  
HOHHXHOH  
HOHNXHOH  
HOHUXHOH

HOHHAHOH  
HOHNAHOH  
HOHUAHOH  
  
(WVYZXAKR)R  
L(HMNUIKLP<sup>R</sup>BEF<sup>Þ</sup>)  
HOHWUHOH  
HOHWHHOH  
HOHVUHOH  
HOHVHHOH  
HOHYUHOH  
HOHYHHOH  
HOHZUHOH  
HOHZHHOH  
HOHXUHOH  
HOHXHHOH  
HOHAUHOH  
HOHAHHOH  
HOHKUHOH  
HOHKHHOH  
HOHRUHOH  
HOHRHHOH  
  
straight>open  
(HMNUIJ)R L(TJS)  
OHOHTHOH  
OHONTHOH  
OHOUTHOH  
OHOHJHOH  
OHON<sup>J</sup>HOH  
OHO<sup>U</sup>JHOH

OHOHSHOH  
OHONSHOH  
OHOUSHOH  
  
(CGSEFLTZ)R  
L(HMNUIKLPRBEFÐ)  
HOHC<sup>U</sup>HOH  
HOHCHHOH  
HOHCÐHOH  
HOHGUHOH  
HOHGHHOH  
HOHGÐHOH  
HOHSUHOH  
HOHSHHOH  
HOHSÐHOH  
HOHEUHOH  
HOHEHHOH  
HOHEÐHOH  
HOHFUHOH  
HOHFHHOH  
HOHFÐHOH  
HOHLUHOH  
HOHLHHOH  
HOHLÐHOH  
HOHT<sup>TU</sup>HOH  
HOHTHHOH  
HOHTÐHOH  
HOHZUHOH  
HOHZHHOH  
HOHZÐHOH

full round >full round  
(DOQ<sup>P</sup>)R L(CGOQ)  
HOH<sup>P</sup>OHOH  
HOHD<sup>O</sup>HOH  
HOHDCHOH  
HOHDQHOH  
HOHQOHOH  
HOHQCHOH  
HOHQQHOH  
  
full > small  
(DOQ<sup>P</sup>)R L(S)  
  
HOH<sup>P</sup>SHOH  
HOHDSHOH  
HOHOSHOH  
HOHQSHOH  
  
(RBP)R L(CGOQ)  
HOH<sup>R</sup>OHOH  
HOH<sup>B</sup>OHOH  
HOHP<sup>O</sup>HOH  
  
full > void  
(DOQ<sup>P</sup>)R L(WVYZXA)  
  
HOHD<sup>W</sup>HOH  
HOH<sup>P</sup>WHOH  
HOHOWHOH  
HOHQWHOH  
HOH<sup>P</sup>VHOH  
HOHD<sup>V</sup>HOH

HOHOVHOH  
HOHQVHOH  
HOHDYHOH  
HOH<sup>P</sup>YHOH  
HOHOYHOH  
HOHQYHOH  
HOH<sup>P</sup>ZHOH  
HOHDZHOH  
HOHOZHOH  
HOHQZHOH  
HOH<sup>P</sup>XHOH  
HOHDXHOH  
HOHOXHOH  
HOHQXHOH  
HOH<sup>P</sup>AHOH  
HOHDAHOH  
HOHOAHOH  
HOHQ<sup>A</sup>HOH  
  
(WVYZXAKR)R L(CGOQ)  
HOHWOHOH  
HOHVOHOH  
HOHYOHOH  
HOHZOHOH  
HOH<sup>X</sup>OHOH  
HOHAOHOH  
HOH<sup>K</sup>OHOH  
HOH<sup>R</sup>OHOH  
  
full>open  
(DOQ)R L(TJSZ)

HOHDTHOH  
HOH<sup>P</sup>THOH  
HOHOTHOH  
HOHQTHOH  
HOHDTJOH  
HOH<sup>P</sup>JHOH  
HOHOJHOH  
HOHQJHOH  
HOHDSHOH  
HOH<sup>P</sup>SHOH  
HOHOSHOH  
HOHQSHOH  
HOH<sup>D</sup>ZHOH  
HOH<sup>P</sup>ZHOH  
HOHOZHOH  
HOHQZHOH  
  
(CSEFLTZG)R L(CGOQ)  
HOHCOHOH  
HOHSOHOH  
HOHEOHOH  
HOHF<sup>O</sup>HOH  
HOHLOHOH  
HOHTOHOH  
HOHZOHOH  
HOHGOHOH  
  
small>small  
(RBP)R L(S)  
HOHRSHOH  
HOHB<sup>S</sup>HOH

HOHPSHOH

small>void  
(RBP)R L(WVYZXA)

HOHRWHOH  
HOHRVHOH  
HOHRYHOH  
HOHRZHOH  
HOHRXHOH  
HOHRAHOH  
HOHRÆHOH

HOHBWHOH  
HOHBVHOH  
HOHBYHOH  
HOHBZHOH  
HOHBXHOH  
HOHBAHOH  
HOHBÆHOH

HOHPWHOH  
HOHPVHOH  
HOHPYHOH  
HOHPZHOH  
HOHPXHOH  
HOHPAHOH  
HOHPÆHOH

(WVYZXAKR)R L(S)

HOHWSHOH  
HOHVSHOH  
HOHYSHOH  
HOHZSHOH  
HOHXSHOH  
HOHASHOH  
HOHKSHOH  
HOHRSHOH

small>open  
(RBP)R L(TJSZ)

HOHRTHOH  
HOHRTHOH  
HOHRTHOH  
HOHRJHOH  
HOHRJHOH  
HOHRJHOH  
HOHRSHOH  
HOHRSHOH  
HOHRSHOH  
HOHRZHOH  
HOHRZHOH  
HOHRZHOH

HOHBTHOH  
HOHBTHOH  
HOHBTHOH  
HOHBJHOH

HOHBJHOH  
HOHBJHOH  
HOHBSHOH  
HOHBSHOH  
HOHBSHOH  
HOHBZHOH  
HOHBZHOH  
HOHBZHOH

HOHPTHOH  
HOHPTHOH  
HOHPTHOH  
HOHPJHOH  
HOHPJHOH  
HOHPJHOH  
HOHPSHOH  
HOHPSHOH  
HOHPSHOH  
HOHPZHOH  
HOHPZHOH  
HOHPZHOH

(CGSEFLTZ)R L(TJSZ)

HOHCSHOH  
HOHGSHOH  
HOHSSHOH  
HOHESHOH  
HOHFSHOH  
HOHLSHOH  
HOHTSHOH  
HOHZSHOH

HOHCTHOH  
HOHGTHOH  
HOHSTHOH  
HOHETHOH  
HOHFTHOH  
HOHLTHOH  
HOHTTHOH  
HOHZTHOH

HOHCJHOH  
HOHGJHOH  
HOHSJHOH  
HOHEJHOH  
HOHFJHOH  
HOHLJHOH  
HOHTJHOH  
HOHZJHOH

HOHCZHOH  
HOHGZHOH  
HOHSZHOH  
HOHEZHOH  
HOHFZHOH  
HOHLZHOH  
HOHTZHOH  
HOHZZHOH

void>void (WVYZXA KR)R L(WVYZXA)	HOHZXHOH HZXZH HOHZAHOH HZAZH  HOHXWHOH 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  HOHKTHOH HKTXH HOHKJHOH HKJXH HOHKSHOH HKSXH  HOHRTHOH HRTXH HOHRJHOH HRJXH HOHRSHOH HRSXH  (CSEFLTZ)R L(WVYZXA)  HOHCWHOH HOHCYHOH HOHCVHOH HOHCZHOH HOHCXHOH HOHCAHOH  HOHSWHOH HSWSH HOHSYHOH HSYSH	HOHSVHOH HSVSH HOHSZHOH HSZSH HOHSXHOH HSXSH HOHSAHOH HSASH  HOHEWHOH HOHEYHOH HOHEVHOH HOHEZHOH HOHEXHOH HOHEAHOH  HOHFWHOH HOHFYHOH HOHFVHOH HOHFZHOH HOHFXHOH HOHFAHOH  HOHLWHOH HOHLYHOH HOHLVHOH HOHLZHOH HOHLXHOH HOHLAHOH  HOHTWHOH 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			
HOHVWHOH HVVWH HOHVVHOH HVVVH HOHVVHOH HVVYH HOHVZHOH HVZVH HOHVXHOH HVXVH HOHVAHOH HVAVH	void>open (WVYZXAKR)R L(TJS)		
HOHYWHOH HYWYH HOHYVHOH HYVYH HOHYWHOH HYYYH HOHYZHOH HYZYH HOHYXHOH HYXYH HOHYAHOH HYAYH	HOHWTHOH HOHWJHOH HOHWSHOH  HOHVTHOH HOHVJHOH HOHVSHOH		
HOHZWHOH HZWZH HOHZVHOH HZVZH HOHZYHOH HZYZH HOHZZHOH HZZZH	HOHYTHOH HOHYJHOH HOHYSHOH		



HOHZWHOH HZWZH	HOHTTHOH	nonHjnono	nonFpnono
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 (ceodqgđ)	nonQunono
HOHCTHOH	straight>straight		nonQbnono
HOHCJHOH		nonHonono	nonQjnono
HOHCSHOH	(HMINUJ)R	nonNonono	nonQnnono
HOHCZHOH	L(ublijphmnr)	nonUonono	nonQpnono
HOHSTHOH		nonHdnono	
HOHSJHOH	nonHnnono	nonNdnono	
HOHSSH OH	nonNnnono	nonUdnono	straight>small round
HOHSZHOH	nonUnnono	nonHgnono	(HMNUIJ)R L(as)
HOHETHOH	nonHunono	nonNgnono	nonHanono
HOHEJHOH	nonNunono	nonUgnono	nonNanono
HOHESH OH	nonUunono	nonHđnono	nonUanono
HOHEZHOH	nonHbnono	nonNđnono	nonHsnono
HOHFTHOH	nonNbnono	nonUđnono	nonNsnono
HOHFJHOH	nonUbnono		nonUsnono
HOHFSHOH	nonHjnono	(DOQ)R L(ublijphmnr)	
HOHFZHOH	nonNjnono		(RBPG)R
HOHLTHOH	nonUjnono	nonFunono	L(ublijphmnr)
HOHLJHOH	nonHinono	nonFbnono	
HOHLSHOH	nonNinono	nonFjnono	nonRunono
HOHLZHOH	nonUinono	nonFnnono	nonRbnono

nonRjnono	nonHynono	nonZbnono	nonHfnono
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
straight>void	nonVnnono		nonSbnono
(HMNUIJ)R L(vwyzx)	nonVpnono	nonRunono	nonSjnono
		nonRbnono	nonSnnono
nonHvnono	nonYunono	nonRjnono	nonSppono
nonNvnono	nonYbnono	nonRnnono	
nonUvnono	nonYjnono	nonRpnono	nonEunono
nonHwnono	nonYnnono		nonEbnono
nonNwnono	nonYpnono	straight>open	nonEjnono
nonUwnono		(HMNUIJ)R L(fts)	nonEnnono
	nonZunono		nonEppono

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

nonZǎnono	nonDsnono		nonRvnono	nonYsnono	L(as)
		nonLonono	nonRwnono	nonZanono	
nonZonono	nonOfnono	nonLdnono	nonRynono	nonZsnono	nonCsnono
nonZdnono	nonOtnono	nonLgnono	nonRznono	nonXanono	nonCanono
nonZgnono	nonOsnono	nonLǎnono	nonRxnono	nonXsnono	nonSsnono
nonZǎnono				nonAanono	nonSanono
	nonQfnono	nonTonono	nonBvnono	nonAsnono	nonEsnono
nonXonono	nonQtnono	nonTdnono	nonBwnono	nonKanono	nonEanono
nonXdnono	nonQsnono	nonTgnono	nonBynono	nonKsnono	nonFsnono
nonXgnono		nonTǎnono	nonBznono	nonRanono	nonFanono
nonXǎnono	(CSEFLTZ)R L (ceodqgǎ)		nonBxnono	nonRsnono	nonLsnono
		nonZonono			nonLanono
nonĀonono		nonZdnono	nonPvnono	small>open	nonTsnono
nonAdnono	nonConono	nonZgnono	nonPwnono	(RBPG)R L(fts)	nonTanono
nonAgnono	nonCdnono	nonZǎnono	nonPynono		nonZsnono
nonĀǎnono	nonCgnono		nonPznono	nonRfnono	nonZanono
	nonCǎnono	small>small (RBPG)R L(as)	nonPxnono	nonRtnono	
nonKonono				nonRsnono	void>void (WVYZXAKR)R L(vwyzx)
nonKdnono	nonSonono		nonGvnono		
nonKgnono	nonSdnono	nonRanono	nonGwnono	nonBfnono	
nonKǎnono	nonSgnono	nonRsnono	nonGynono	nonBtnono	
	nonSǎnono	nonBanono	nonGznono	nonBsnono	nonWvnono
nonRonono		nonBsnono	nonGxnono		nonWwnono
nonRdnono	nonEonono	nonPanono		nonPfnono	nonWynono
nonRgnono	nonEdnono	nonPsnono	(WVYZXAKR)R	nonPtnono	nonWznono
nonRǎnono	nonEgnono	nonGanono	L(as)	nonPsnono	nonWxnono
	nonEǎnono	nonGsnono			
full>open (DOQ)R L(fts)			nonWanono	nonGfnono	nonVvnono
	nonFonono		nonWsnono	nonGtnono	nonVwnono
	nonFdnono	small>void (RBPG)R	nonVanono	nonGsnono	nonVynono
nonDfnono	nonFgnono	L(vwyzx)	nonVsnono		nonVznono
nonDtnono	nonFǎnono		nonYanono	(CSEFLTZ)R	nonVxnono

nonYvnono	nonRwnono	(CSEFLTZ)R L(vwyzx)	nonTvnono
nonYwnono	nonRynono		nonTwnono
nonYynono	nonRznono	nonCvnono	nonTynono
nonYznono	nonRxnono	nonCwnono	nonTznono
nonYxnono		nonCynono	nonTxnono
	void>open	nonCznono	
	(WVYZXAKR)R L(fts)	nonCxnono	nonZvnono
nonZvnono	nonWfnono		nonZwnono
nonZwnono	nonWtnono	nonSvnono	nonZynono
nonZynono	nonWtnono	nonSwnono	nonZznono
nonZznono	nonWsnono	nonSynono	nonZxnono
nonZxnono	nonVfnono	nonSznono	
	nonVtnono	nonSxnono	open>open
nonXvnono	nonVsnono		(CSEFLTZ)R L(fts)
nonXwnono	nonYfnono	nonEvnono	
nonXynono	nonYtnono	nonEwnono	nonCfnono
nonXznono	nonYsnono	nonEynono	nonCtnono
nonXxnono	nonZfnono	nonEznono	nonCsnono
	nonZtnono	nonExnono	nonSfnono
nonAvnono	nonZsnono		nonStnono
nonAwnono	nonXfnono	nonFvnono	nonSsnono
nonAynono	nonXtnono	nonFwnono	nonEfnono
nonAznono	nonXsnono	nonFynono	nonEtnono
nonAxnono	nonAfnono	nonFznono	nonEsnono
	nonAtnono	nonFxnono	nonFfnono
nonKvnono	nonAsnono		nonFtnono
nonKwnono	nonKfnono	nonLvnono	nonFsnono
nonKynono	nonKtnono	nonLwnono	nonLfnono
nonKznono	nonKsnono	nonLynono	nonLtnono
nonKxnono	nonRfnono	nonLznono	nonLsnono
	nonRtnono	nonLxnono	nonTfnono
nonRvnono	nonRsnono		

nonTtnono	nonpĐnono	nonqVnono	nonaĀnono
nonTsnono	nonbĐnono	noniVnono	
nonZfnono	nonđĐnono	nonjVnono	(kvwyx)R
nonZtnono		nonuVnono	L(HMNUIKLPRBEFĐ)
nonZsnono	straight>small round (udlijgqhmna)R L(S)	nonaVnono	
		nonnYnono	nonkHnono
Lowercase > UPPERCASE	nonnSnono	nonqYnono	nonkUnono
	nonqSnono	noniYnono	nonkĐnono
	noniSnono	nonjYnono	nonvHnono
straight>full round (udlijgqhmna)R L (CGOQ)	nonjSnono	nonuYnono	nonvUnono
nonnOnono	nonuSnono	nonaYnono	nonvĐnono
nonqOnono	nonaSnono		nonwHnono
noniOnono	(s)R	nonnZnono	nonwUnono
nonjOnono	L(HMNUIKLPRBEF')	nonqZnono	nonwĐnono
nonuOnono		noniZnono	nonyHnono
nonaOnono	nonsHnono	nonjZnono	nonyUnono
	nonsUnono	nonuZnono	nonyĐnono
		nonaZnono	nonzHnono
(bpo)R	straight>void	nonnXnono	nonzUnono
L(HMNUIKLPRBEFĐ)	(udlijgqhmna)R L(WVYZXA)	nonqXnono	nonzĐnono
nonoHnono		noniXnono	nonxHnono
nonpHnono	nonnWnono	nonjXnono	nonxUnono
nonbHnono	nonqWnono	nonuXnono	nonxĐnono
nonđHnono	noniWnono	nonaXnono	
nonoUnono	nonjWnono		straight>open (udlijgqhmna)R L(TJS)
nonpUnono	nonuWnono	nonnĀnono	nonnTnono
nonbUnono	nonaWnono	nonqĀnono	nonqTnono
nonđUnono		noniĀnono	noniTnono
nonoĐnono	nonnVnono	nonjĀnono	nonjTnono
		nonuĀnono	nonuTnono

nonaTnono

nonnJnono  
nonqJnono  
noniJnono  
nonjJnono  
nonuJnono  
nonaJnono

nonnSnono  
nonqSnono  
noniSnono  
nonjSnono  
nonuSnono  
nonaSnono

(ctfr) R  
L(HMNUIKLPRBEF)

noncHnono  
noncUnono  
nonfHnono  
nonfUnono  
nontHnono  
nontUnono  
nonrHnono  
nonrUnono

full round >full round  
(bpoe)R L(CGOQ)

nonoOonono  
nonpOonono  
nonbOonono

full > small  
(bpo)R L(S)

nonoSnono  
nonpSnono  
nonbSnono

(as) R L(CGOQ)

nonaOnono  
nonsOnono

full > void  
(bpođ)R L(WVYZXA)  
(kvwyzx)R L(CGOQ)

nonoWnono  
nonpWnono  
nonbWnono  
nonđWnono  
nonoVnono  
nonpVnono  
nonbVnono  
nonđVnono  
nonoYnono  
nonpYnono  
nonbYnono

nonđYnono

nonoZnono  
nonpZnono  
nonbZnono  
nonđZnono  
nonoXnono  
nonpXnono  
nonbXnono  
nonđXnono  
nonoAnono  
nonpAnono  
nonbAnono  
nonđAnono

full>open  
(bpođ)R L(TJS)

nonoTnono  
nonpTnono  
nonbTnono  
nonđTnono

nonoJnono  
nonpJnono  
nonbJnono  
nonđJnono

nonoSnono  
nonpSnono  
nonbSnono  
nonđSnono

(ctfr) R L(CGOQ)

noncOnono  
nonfOnono  
nontOnono  
nonrOnono

small>small  
(s)R L(S)

nonsSsnono

small>void  
(s)R L(WVYZXA)

nonsWnono  
nonsVnono  
nonsYnono  
nonsZnono  
nonsXnono  
nonsAnono

(kvwyzx)R L(S)

nonkSnono  
nonvSnono  
nonwSnono  
nonySnono  
nonzSnono  
nonxSnono

small>open

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



noncSnono			
nontSnono	straight>small round	007100	000000
nonfSnono	(1) R L(98)	002100	000600
nonrSnono			009000
	001900	straight>open	009600
	001800	(1) R L(239)	
Figures			full round >small
	111911	111211	round
straight > straight	111811	111311	(09) R L(98)
001100		111911	
111111	(8356) R L (1)		110911
HH11HH		001200	110811
nn11nn	008100	001300	119911
	003100	001900	119811
straight>full round	005100		
(1) R L (06)	006100	(654)R L(1)	000900
			000800
001000	118111	116111	009900
001600	113111	115111	009800
	115111	114111	
111011	116111		L(98) L (06)
111611		006100	
	straight>void	005100	119011
	(1) R L(4)	004100	119611
(09) R L (1)			118011
	111411	full round >full round	118611
009100	001400	(09) R L (06)	
000100			009000
	(72)R L (1)	110011	009600
119111		110611	008000
110111	117111	119011	008600
	112111	119611	

<b>full &gt; void</b> <b>(09) R L(4)</b>	<b>000200</b> <b>000300</b> <b>000900</b> <b>009200</b> <b>009300</b> <b>009900</b>	<b>116911</b> <b>116811</b>	<b>112811</b>
<b>110411</b> <b>119411</b>		<b>008900</b> <b>008800</b> <b>003900</b> <b>003800</b>	<b>007900</b> <b>002900</b> <b>007800</b> <b>002800</b>
<b>000400</b> <b>009400</b>	<b>(654)R L (06)</b>	<b>005900</b> <b>005800</b> <b>006900</b> <b>006800</b>	<b>small &gt; open</b> <b>(8356) R L(239)</b>
<b>(72)R L (06)</b>	<b>116011</b> <b>116611</b> <b>115011</b> <b>115611</b> <b>114011</b> <b>114611</b>		<b>118211</b> <b>118311</b> <b>118911</b>
<b>117011</b> <b>117611</b> <b>112011</b> <b>112611</b>		<b>small &gt; void</b> <b>(8356) R L(4)</b>	<b>113211</b> <b>113311</b> <b>113911</b>
<b>007000</b> <b>007600</b> <b>002000</b> <b>002600</b>	<b>006000</b> <b>006600</b> <b>005000</b> <b>005600</b> <b>004000</b> <b>004600</b>	<b>118411</b> <b>113411</b> <b>115411</b> <b>116411</b>	
<b>full &gt; open</b> <b>(09) R L(239)</b>	<b>small &gt; small</b> <b>(8356) R L(98)</b>	<b>008400</b> <b>003400</b> <b>005400</b> <b>006400</b>	<b>115211</b> <b>115311</b> <b>115911</b>
<b>110211</b> <b>110311</b> <b>110911</b> <b>119211</b> <b>119311</b> <b>119911</b>	<b>118911</b> <b>118811</b> <b>113911</b> <b>113811</b> <b>115911</b> <b>115811</b>	<b>(72)R L(98)</b>  <b>117911</b> <b>112911</b> <b>117811</b>	<b>008200</b> <b>008300</b> <b>008900</b>  <b>003200</b> <b>003300</b>

003900	112411	004400	jj, jy, qj, qg, gg, gp, gy, fh, fk, fl, fb, fi, fj, ff, ft
005200	007400	open > open	
005300	002400	(654)R L(239)	L4 F'7 6T T'7
005900			
006200	void > open	116211	
006300	(72)R L(239)	116311	
006900		116911	
	117211	115211	
	117311	115311	
	117911	115911	
	112211	114211	
(654)R L(98)	112311	114311	
	112911	114911	
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		

