

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

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  
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  
nonzgnonon  
nonxgnonon  
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

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

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

small>void  
(s)R L(vwyzx)  
nonsvnonon  
nonswnonon  
nonsynonon  
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  
nonvxnononon  
nonwvnnonon  
nonwwnononon  
nonwynnonon  
nonwznnonon  
nonwxnononon  
nonyvnnonon  
nonywnnonon  
nonyynnonon  
nonyznnonon  
nonyxnnonon  
nonzvnnonon  
nonzwnnonon  
nonzynnonon  
nonzznnonon  
nonzxnononon  
nonxvnnonon  
nonxwnnonon  
nonxynnonon  
nonxznononon  
nonxxnononon

void>open  
(kvwyzx)R L(fts)  
nonkfnnonon  
nonktnnonon  
nonksnononon  
nonvfnnonon  
nonvtnononon  
nonvsnononon  
nonwfnnonon  
nonwtnononon  
nonwsnononon  
nonyfnnonon  
nonytnnonon  
nonysnnononon  
nonzfnnonon  
nonztnnonon  
nonzsnnonon  
nonxfnnonon  
nonxtnononon  
nonxsnononon  
  
(ctfre) R L(vwyzx)  
noncvnnonon  
noncwnnonon  
noncynnonon  
noncznnonon  
noncxnononon  
nontvnnonon  
nontwnnonon

nontynnonon  
nontznnonon  
nontxnnonon  
nonfvnnonon  
nonfwnnonon  
nonfynnonon  
nonfznnonon  
nonfxnnonon  
nonrvnnonon  
nonrwnnonon  
nonrynononon  
nonrznnonon  
nonrxnnonon  
nonevnnonon  
newnononon  
noneynnonon  
noneznnonon  
nonexnononon  
  
open>open  
(ctfre) R L(fts)  
noncfnononon  
nonctnononon  
noncsnononon  
nontfnnonon  
nonttnnonon  
nontsnnononon  
nonffnnonon  
nonftnnonon  
nonfsnononon  
nonrfnnonon  
nonrtnononon

nonrsnononon  
nonefnnonon  
nonetnononon  
nonesnononon  
  
UPPERCASE  
  
straight>straight  
(HMNUIJ)R  
L(HMNUIKLPRBEFÐ)  
HOHHHHHOH  
HOHHMHOH  
HOHHNHOH  
HOHHUHOH  
HOHHIHOH  
HOHHKHOH  
HOHHLHOH  
HOHHÐHOH  
  
HOHMHHOH  
HOHMMHOH  
HOHMNHOH  
HOHMUHOH  
HOHMIHOH  
HOHMKHOH  
HOHMLHOH  
HOHMÐHOH  
  
HOHNHHHOH  
HOHNMHHOH  
HOHNNNHOH

HOHNUHOH		L(HMNUIKLPBEFÐ)	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(HMNUIKLPBEF)
HOHUMHOH	HOHNCHOH	HOHBUHOH	HOHWUHOH
HOHUNHOH	HOHUCHOH	HOHBÐHOH	HOHWHHOH
HOHUUHOH		HOHPHHOH	HOHVUHOH
HOHUIHOH	(DOQÞ)R	HOHPNHOH	HOHVHHOH
HOHUKHOH	L(HMNUIKLPBEFÐ)	HOHPUHOH	HOHYUHOH
HOHULHOH	HOHOUHOH	HOHPÐHOH	HOHYHHOH
HOHUÐHOH	HOHQUHOH		HOHZUHOH
	HOHDUHOH		HOHZHHOH
HOHIHHOH	HOHÞUHOH	straight>void	HOHXUHOH
HOHIMHOH	HOHOHHOH	(HMNUIJ)R L(WVYZXA)	HOHXHHOH
HOHINHOH	HOHQHHOH	HOHHVHOH	HOHAUHOH
HOHIUHOH	HOHDHHOH	HOHNVHOH	HOHAHHOH
HOHIIHOH	HOHÞHHOH	HOHUVHOH	HOHKUHOH
HOHIKHOH	HOHOÐHOH	HOHHWHOH	HOHKHHOH
HOHILHOH	HOHQÐHOH	HOHNWHOH	HOHRUHOH
HOHIÐHOH	HOHDÐHOH	HOHUWHOH	HOHRHHOH
	HOHÞÐHOH	HOHHYHOH	
HOHJHHOH		HOHNYHOH	straight>open
HOHJMHOH	straight>small round	HOHUYHOH	(HMNUIJ)R L(TJS)
HOHJNHOH	(HMNUIJ)R L(S)	HOHHZHOH	OHOHTHOH
HOHJUHOH	OHOHSHOH	HOHNZHOH	OHOHTHOH
HOHJIHOH	OHONSHOH	HOHUZHOH	OHOUTHOH
HOHJKHOH	OHOUSHOH	HOHHXHOH	OHOHJHOH
HOHJLHOH		HOHNXHOH	OHONJHOH
HOHJÐHOH	(RBP)R	HOHUXHOH	OHOUJHOH

OHOHSHOH  
OHO~~NS~~SHOH  
OHOUSHOH  
  
(CGSEFLTZR  
L(HMNUIKLPRBEFÐ)  
HOHCUSHOH  
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  
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)

HOHWWHOH HWWWH  
HOHWVHOH HWVWH  
HOHWYHOH HWYWH  
HOHWZHOH HWZWH  
HOHWXHOH HWXWH  
HOHWAHOH **HWAWH**  
HOHWÆHOH HWÆWH

HOHVWHOH HVVWH  
HOHVVHOH HVVWH  
HOHVVHOH HVVWH  
HOHVZHOH HVZWH  
HOHVXHOH HVXWH  
HOHVAHOH HVAWH

HOHYWHOH HYWYH  
HOHYVHOH HYVYH  
HOHYWHOH HYWYH  
HOHYZHOH **HYZYH**  
HOHYXHOH HYXYH  
HOHYAHOH **HYAYH**

HOHZWHOH HZWZWH  
HOHZVHOH HZVZWH  
HOHZYHOH **HZYZH**  
HOHZZHOH HZZZWH

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

void>open  
(WVYZXAKR)R L(TJS)

HOHWTHOH  
HOH**WJ**HOH  
HOH**WS**HOH

HOH**VT**HOH  
HOH**VJ**HOH  
HOHVSHOH

HOHYTHOH  
HOH**YJ**HOH  
HOHYSHOH

HOHZTHOH  
HOHZJHOH  
HOH**ZS**HOH

HOHXTHOH  
HOHXJHOH  
HOHXSHOH

HOHATHOH  
HOHAJHOH  
HOHASHOH

HOH**KT**HOH HKTXH  
HOHKJHOH HKJXH  
HOHKSHOH HKSXH

HOH**RT**HOH HRTXH  
HOHRJHOH HRJXH  
HOHRSHOH HRSXH

(CSEFLTZ)R  
L(WVYZXA)

HOHCWHOH  
HOHCYHOH  
HOHCVHOH  
HOH**CZ**HOH  
HOH**CX**HOH  
HOH**CA**HOH

HOHSWHOH HSWSH  
HOHSYHOH HSYSH

HOHSVHOH HSVSH  
HOHSZHOH HSZSH  
HOHSXHOH HSXSH  
HOHSAHOH HSASH

HOHEWHOH  
HOHEYHOH  
HOHEVHOH  
HOH**EZ**HOH  
HOH**EX**HOH  
HOH**EA**HOH

HOH**FW**HOH  
HOHFWHOH  
HOHFFHOH  
HOHFF'ZHOH  
HOH**FX**HOH  
HOHFAHOH

HOHLWHOH  
HOHLYHOH  
HOHLVHOH  
HOHLZHOH  
HOHLXHOH  
HOHLAHOH

HOHTWHOH HTWTH  
HOHTYHOH HTYTH  
HOHTVHOH HTVTH  
HOHTZHOH HT**Z**TH  
HOHTXHOH HTXTH  
HOHTAHOH HTATH



HOHZWHOH HZWZH  
HOHZYHOH HZYZH  
HOHZVHOH HZVZH  
HOHZZHOH HZZZH  
HOHZXHOH HZXZH  
HOHZAHOH HZAZH

open>open  
(CSEFLTZ)R L(TJZ)

HOHCTHOH  
HOHCJHOH  
HOHCSHOH  
HOHCZHOH  
HOHSTHOH  
HOHSJHOH  
HOHSSH OH  
HOHSZHOH  
HOHETHOH  
HOHEJHOH  
HOHESH OH  
HOHEZHOH  
HOHFTHOH  
HOHFJHOH  
HOHFSHOH  
HOHFZHOH  
HOHLTHOH  
HOHLJHOH  
HOHLSHOH  
HOHLZHOH

HOHTTHOH  
HOHTJHOH  
HOHTSHOH  
HOHTZHOH  
HOHZTHOH  
HOHZJHOH  
HOHZSHOH  
HOHZZHOH

UPPERCASE >  
Lowercase

straight>straight

(HMINUJ)R  
L(ublijphmnr)

nonHnnono  
nonNnnono  
nonUnnnono  
nonHunono  
nonNunono  
nonUunono  
nonHbnono  
nonNbnono  
nonUbnono  
nonHjnnono  
nonNjnnono  
nonUjnnono  
nonHinono  
nonNinono  
nonUinono

nonHjnnono  
nonNjnnono  
nonUjnnono  
nonHpnnono  
nonNpnnono  
nonUpnnono  
nonHhnnono  
nonNhnnono  
nonUhnnono

straight>full round  
(HMINUJ)R L(ceodqgð)

nonHonono  
nonNonono  
nonUonono  
nonHdnono  
nonNdnono  
nonUdnono  
nonHgnono  
nonNgnono  
nonUgnono  
nonHðnono  
nonNðnono  
nonUðnono

(DOQ)R L(ublijphmnr)

nonFunono  
nonFbnnono  
nonFjnnono  
nonFnnono

nonFpnnono  
nonDunono  
nonDbnnono  
nonDjnnono  
nonDnnono  
nonDpnnono  
nonOunono  
nonObnnono  
nonOjnnono  
nonOnnnono  
nonOpnnono  
nonQunono  
nonQbnnono  
nonQjnnono  
nonQnnono  
nonQpnnono

straight>small round  
(HMNUIJ)R L(as)

nonHanono  
nonNanono  
nonUanono  
nonHsnono  
nonNsnono  
nonUsnono

(RBPG)R L(ublijphmnr)

nonRunono  
nonRbnnono  
nonRjnnono

nonRnnono  
nonRpnono

nonBunono  
nonBbnono  
nonBjnono  
nonBnnono  
nonBpnono

nonPunono  
nonPbnono  
nonPjnono  
nonPnnono  
nonPpnono

nonGunono  
nonGbnono  
nonGjnono  
nonGnnono  
nonGpnono

straight>void  
(HMNUIJ)R L(vwyzx)

nonHvnono  
nonNvnono  
nonUvnono  
nonHwnono  
nonNwnono  
nonUwnono  
nonHynono

nonNynono  
nonUynono  
nonHznono  
nonNznono  
nonUznono  
nonHxnono  
nonNxnono  
nonUxnono

(WVYZXAKR)R  
L(ublijphmnr)

nonWunono  
nonWbnono  
nonWjnono  
nonWnnono  
nonWpnono

nonVunono  
nonVbnono  
nonVjnono  
nonVnnono  
nonVpnono

nonYunono  
nonYbnono  
nonYjnono  
nonYnnono  
nonYpnono

nonZunono  
nonZbnono

nonZjnono  
nonZnnono  
nonZpnono

nonXunono  
nonXbnono  
nonXjnono  
nonXnnono  
nonXpnono

nonAunono  
nonAbnono  
nonAjnono  
nonAnnono  
nonApnono

nonKunono  
nonKbnono  
nonKjnono  
nonKnnono  
nonKpnono

nonRunono  
nonRbnono  
nonRjnono  
nonRnnono  
nonRpnono

straight>open  
(HMNUIJ)R L(fts)

nonHfnono

nonNfnono  
nonUfnono

nonHtnono  
nonNtnono  
nonUtnono

nonHsnono  
nonNsnono  
nonUsnono

(CSEFLTZ)R  
L(ublijphmnr)

nonCunono  
nonCbnono  
nonCjnono  
nonCnnono  
nonCpnono

nonSunono  
nonSbnono  
nonSjnono  
nonSnnono  
nonSpnono

nonEunono  
nonEbnono  
nonEjnono  
nonEnnono  
nonEpnono

nonF<sup>u</sup>nono  
nonF<sup>b</sup>nono  
nonF<sup>j</sup>nono  
nonF<sup>nn</sup>nono  
nonF<sup>p</sup>nono

nonL<sup>u</sup>nono  
nonL<sup>b</sup>nono  
nonL<sup>j</sup>nono  
nonL<sup>nn</sup>nono  
nonL<sup>p</sup>nono

nonT<sup>u</sup>nono  
nonT<sup>b</sup>nono  
nonT<sup>j</sup>nono  
nonT<sup>nn</sup>nono  
nonT<sup>p</sup>nono

nonZ<sup>u</sup>nono  
nonZ<sup>b</sup>nono  
nonZ<sup>j</sup>nono  
nonZ<sup>nn</sup>nono  
nonZ<sup>p</sup>nono

nonZh<sup>n</sup>nono  
nonZh<sup>n</sup>nono  
nonZh<sup>n</sup>nono  
nonZh<sup>n</sup>nono  
nonZh<sup>n</sup>nono

full round >full round  
(DOQ)R L (ceodqgđ)

nonD<sup>o</sup>nono  
nonD<sup>d</sup>nono  
nonD<sup>g</sup>nono  
nonD<sup>đ</sup>nono  
nonF<sup>o</sup>nono  
nonF<sup>d</sup>nono  
nonF<sup>g</sup>nono  
nonF<sup>đ</sup>nono  
nonO<sup>o</sup>nono  
nonO<sup>d</sup>nono  
nonO<sup>g</sup>nono  
nonO<sup>đ</sup>nono  
nonQ<sup>o</sup>nono  
nonQ<sup>d</sup>nono  
nonQ<sup>g</sup>nono  
nonQ<sup>đ</sup>nono

full > small  
(DOQ)R L(as)

nonD<sup>a</sup>nono  
nonD<sup>s</sup>nono  
nonF<sup>a</sup>nono  
nonF<sup>s</sup>nono  
nonO<sup>a</sup>nono  
nonO<sup>s</sup>nono  
nonQ<sup>a</sup>nono  
nonQ<sup>s</sup>nono

(RBP)R L (ceodqg)

nonR<sup>o</sup>nono  
nonR<sup>d</sup>nono  
nonR<sup>g</sup>nono  
nonR<sup>đ</sup>nono

nonB<sup>o</sup>nono  
nonB<sup>d</sup>nono  
nonB<sup>g</sup>nono  
nonB<sup>đ</sup>nono

nonP<sup>o</sup>nono  
nonP<sup>d</sup>nono  
nonP<sup>g</sup>nono  
nonP<sup>đ</sup>nono

full > void  
(DOQ)R L(vwyzx)

nonD<sup>v</sup>nono  
nonD<sup>w</sup>nono  
nonD<sup>y</sup>nono  
nonD<sup>z</sup>nono  
nonD<sup>x</sup>nono

nonF<sup>v</sup>nono  
nonF<sup>w</sup>nono  
nonF<sup>y</sup>nono  
nonF<sup>z</sup>nono  
nonF<sup>x</sup>nono

nonO<sup>v</sup>nono  
nonO<sup>w</sup>nono

nonO<sup>y</sup>nono  
nonO<sup>z</sup>nono  
nonO<sup>x</sup>nono

nonQ<sup>v</sup>nono  
nonQ<sup>w</sup>nono  
nonQ<sup>y</sup>nono  
nonQ<sup>z</sup>nono  
nonQ<sup>x</sup>nono

(WVYZXAKR)R L  
(ceodqgđ)

nonW<sup>o</sup>nono  
nonW<sup>d</sup>nono  
nonW<sup>g</sup>nono  
nonW<sup>đ</sup>nono

nonV<sup>o</sup>nono  
nonV<sup>d</sup>nono  
nonV<sup>g</sup>nono  
nonV<sup>đ</sup>nono

nonY<sup>o</sup>nono  
nonY<sup>d</sup>nono  
nonY<sup>g</sup>nono  
nonY<sup>đ</sup>nono

nonZ<sup>o</sup>nono  
nonZ<sup>d</sup>nono  
nonZ<sup>g</sup>nono  
nonZ<sup>đ</sup>nono

nonZonono  
nonZdnono  
nonZgnono  
nonZðnono

nonXonono  
nonXdnono  
nonXgnono  
nonXðnono

nonAonono  
nonAdnono  
nonAgnono  
nonAðnono

nonKonono  
nonKdnono  
nonKgnono  
nonKðnono

nonRonono  
nonRdnono  
nonRgnono  
nonRðnono

full>open  
(DOQ)R L(fts)

nonDfnono  
nonDtnono  
nonDsnono

nonOfnono  
nonOtnono  
nonOsnono

nonQfnono  
nonQtnono  
nonQsnono

(CSEFLTZ)R L  
(ceodqgð)

nonConono  
nonCdnono  
nonCgnono  
nonCðnono

nonSonono  
nonSdnono  
nonSgnono  
nonSðnono

nonEonono  
nonEdnono  
nonEgnono  
nonEðnono

nonFonono  
nonFdnono  
nonFgnono  
nonFðnono

nonLonono  
nonLdnono  
nonLgnono  
nonLðnono

nonTonono  
nonTdnono  
nonTgnono  
nonTðnono

nonZonono  
nonZdnono  
nonZgnono  
nonZðnono

small>small  
(RBPG)R L(as)

nonRanono  
nonRsnono  
nonBanono  
nonBsnono  
nonPanono  
nonPsnono  
nonGanono  
nonGsnono

small>void  
(RBPG)R  
L(vwyzx)  
nonRvnono

nonRwnono  
nonRynono  
nonRznono  
nonRxnono

nonBvnono  
nonBwnono  
nonBynono  
nonBznono  
nonBxnono

nonPvnono  
nonPwnono  
nonPynono  
nonPznono  
nonPxnono

nonGvnono  
nonGwnono  
nonGynono  
nonGznono  
nonGxnono

(WVYZXAKR)R  
L(as)

nonWanono  
nonWsnono  
nonVanono  
nonVsnono  
nonYanono  
nonYsnono

nonZanono  
nonZsnono  
nonXanono  
nonXsnono  
nonAanono  
nonAsnono  
nonKanono  
nonKsnono  
nonRanono  
nonRsnono

small>open  
(RBPG)R L(fts)

nonRfnono  
nonRtnono  
nonRsnono

nonBfnono  
nonBtnono  
nonBsnono

nonPfnono  
nonPtnono  
nonPsnono

nonGfnono  
nonGtnono  
nonGsnono

(CSEFLTZ)R  
L(as)

nonCsnono  
nonCanono  
nonSsnono  
nonSanono  
nonEsnono  
nonEanono  
nonFsnono  
nonFanono  
nonLsnono  
nonLanono  
nonTsnono  
nonTanono  
nonZsnono  
nonZanono

void>void  
(WVYZXAKR)R  
L(vwyzx)

nonWvnono  
nonWwnono  
nonWynono  
nonWznono  
nonWxnono

nonVvnono  
nonVwnono  
nonVynono  
nonVznono  
nonVxnono

nonYvnono	nonRynono	(CSEFLTZ)R L(vwyzx)	nonTvnono
nonYwnono	nonRznono		nonTwnono
nonYynono	nonRxnono	nonCvnono	nonTynono
nonYznono		nonCwnono	nonTznono
nonYxnono	void>open	nonCynono	nonTxnono
	(WVYZXAKR)R L(fts)	nonCznono	
nonZvnono		nonCxnono	nonZvnono
nonZwnono	nonWfnono		nonZwnono
nonZynono	nonWtnono	nonSvnono	nonZynono
nonZznono	nonWsnono	nonSwnono	nonZznono
nonZxnono	nonVfnono	nonSynono	nonZxnono
	nonVtnono	nonSznono	
nonXvnono	nonVsnono	nonSxnono	open>open
nonXwnono	nonYfnono		(CSEFLTZ)R L(fts)
nonXynono	nonYtnono	nonEvnono	
nonXznono	nonYsnono	nonEwnono	nonCfnono
nonXxnono	nonZfnono	nonEynono	nonCtnono
	nonZtnono	nonEznono	nonCsnono
nonAvnono	nonZsnono	nonExnono	nonSfnono
nonAwnono	nonXfnono		nonStnono
nonAynono	nonXtnono	nonFvnono	nonSsnono
nonAznono	nonXsnono	nonFwnono	nonEfnono
nonAxnono	nonAfnono	nonFynono	nonEtnono
	nonAtnono	nonFznono	nonEsnono
nonKvnono	nonAsnono	nonFxnono	nonFfnono
nonKwnono	nonKfnono		nonF'tnono
nonKynono	nonKtnono	nonLvnono	nonF'snono
nonKznono	nonKsnono	nonLwnono	nonLfnono
nonKxnono	nonRfnono	nonLynono	nonLtnono
	nonRtnono	nonLznono	nonLsnono
nonRvnono	nonRsnono	nonLxnono	nonTfnono
nonRwnono			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			
006200	void > open	116211	
006300	(72)R L(239)	116311	
006900		116911	
(654)R L(98)	117211	115211	
	117311	115311	
	117911	115911	
	112211	114211	
	112311	114311	
	112911	114911	
116911			
116811	007200	006200	
115911	007300	006300	
115811	007900	006900	
114911	002200	005200	
114811	002300	005300	
	002900	005900	
		004200	
006900		004300	
006800		004900	
005900			
005800	(654)R L(4)		
004900			
004800			
void > void	116411	collisions U>L & L>U	
(72)R L(4)	115411		
	114411	fT fY	
		Qj Qy Qp Qj F'l tA gT gV	
	006400	gX	
117411	005400		
112411	004400	jj, jy, qj, qg, gg, gp, gy,	

