

LOWERCASE

straight>straight  
(udlijqhmna)R  
L(ublijphmnr)

nonnnnnono  
nonnnunono  
nonnnbnono  
nonnninono  
nonnnjnono  
nonnnpnono  
nonnuunono  
nonnubnono  
nonnuinono  
nonnujnono  
nonnupnono  
nonnunnono  
nonnqunono  
nonnqbnono  
nonnqinono  
nonnqjnono  
nonnqpnono  
nonnqnnono  
nonnjunono  
nonnjbnono  
nonnjinono  
nonnjjnono  
nonnjpnono  
nonnjnnono  
nonnnunono  
nonnnbnono

nonnninono  
nonnnjnono  
nonnnpnono  
nonnnnnono  
nonnaunono  
nonnabnono  
nonnainono  
nonnajnono  
nonnapnono  
nonnannono  
nonniunono  
nonnibnono  
nonniinono  
nonnijnono  
nonnipnono  
nonninnono

straight>full round  
(udlijqhmna)R L  
(ceodqgđ)  
nonnuonono  
nonnugnono  
nonnuðnono  
nonnqonono  
nonnqgnono  
nonnqðnono  
nonnjonono  
nonnjgnono  
nonnjðnono  
nonnionono  
nonnignono

nonniðnono  
nonnnonono  
nonnngnono  
nonnñnono  
nonnonono

(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  
nonnnanono  
nonnnsnono

(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  
nonkjnono  
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  
noncnnonon  
noncjnonon  
nonclnonon  
noncpnonon  
nontunono

non**tb**nono  
non**tn**nonon  
non**tj**nonon  
non**tl**nonon  
non**tp**nonon  
non**fu**nono  
non**fb**nono  
non**f**nonon  
non**fj**nonon  
non**fl**nonon  
non**fp**nonon  
nonrunono  
nonrbnono  
nonrnonon  
nonrjnonon  
nonrlnonon  
nonrpnnonon  
non**eu**nono  
non**eb**nono  
nonenonon  
nonejnonon  
nonelonon  
nonepnonon

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

nonocnono  
nono**en**ono  
nono**g**nono  
nonoðnono  
non**pd**nonon

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**gv**nono  
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  
nonzsnnonon  
nonxanonon  
nonxsnnonon

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

(ctfre) R L(as)  
noncanonon  
noncsnonon  
nontanonon  
nontsnnonon  
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  
HOHHMH OH  
HOHHNH OH  
HOHHUH OH  
HOHHIH OH  
HOHHKH OH  
HOHHLH OH  
HOHHÐH OH  
  
HOHMH OH  
HOHMMH OH  
HOHMNH OH  
HOHMUH OH  
HOHMIH OH  
HOHMKH OH  
HOHMLH OH  
HOHMÐH OH  
  
HOHNHH OH  
HOHNMH OH  
HOHNNH OH

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

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

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

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

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

(DOQ<sup>F</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>F</sup>UHOH  
HOHOHHOH  
HOHQ<sup>H</sup>HOH  
HOHD<sup>H</sup>HOH  
HOH<sup>F</sup>H<sup>H</sup>HOH  
HOH<sup>O</sup><sup>Ð</sup>HOH  
HOHQ<sup>Ð</sup>HOH  
HOHD<sup>Ð</sup>HOH  
HOH<sup>F</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>P</sup><sup>Ð</sup>HOH

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

HOHHAHOH  
HOHNAHOH  
HOHUAHOH  
  
(WVYZXAKR)R  
L(HMNUIKLP<sup>R</sup>BEF<sup>'</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>N</sup>JHOH  
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  
HOH<sup>O</sup>ZHOH  
HOHQZHOH  
  
(CSEFLTZG)R L(CGOQ)  
HOH<sup>C</sup>OHOH  
HOH<sup>S</sup>OHOH  
HOHEOHOH  
HOH<sup>F</sup>OHOH  
HOHLOHOH  
HOHT<sup>O</sup>HOH  
HOHZOHOH  
HOH<sup>G</sup>OHOH  
  
small>small  
(RBP)R L(S)  
HOH<sup>R</sup>SHOH  
HOHBSHOH

HOHPSHOH

small>void  
(RBP)R L(WVYZXA)

HOHRW<sup>HOH</sup>  
HOHRV<sup>HOH</sup>  
HOHRY<sup>HOH</sup>  
HOHRZ<sup>HOH</sup>  
HOHRX<sup>HOH</sup>  
HOHRA<sup>HOH</sup>  
HOHRA<sup>HOH</sup>

HOHBW<sup>HOH</sup>  
HOHBV<sup>HOH</sup>  
HOHBY<sup>HOH</sup>  
HOHBZ<sup>HOH</sup>  
HOHBX<sup>HOH</sup>  
HOHBA<sup>HOH</sup>  
HOHBA<sup>HOH</sup>

HOHPW<sup>HOH</sup>  
HOHPV<sup>HOH</sup>  
HOHPY<sup>HOH</sup>  
HOHPZ<sup>HOH</sup>  
HOHPX<sup>HOH</sup>  
HOHPA<sup>HOH</sup>  
HOHPA<sup>HOH</sup>

(WVYZXAKR)R L(S)

HOHWSHOH  
HOHVSHOH  
HOHYSHOH  
HOHZSHOH  
HOHXSHOH  
HOHASHOH  
HOHKSHOH  
HOHRS<sup>HOH</sup>

small>open  
(RBP)R L(TJSZ)

HOHRT<sup>HOH</sup>  
HOHRT<sup>HOH</sup>  
HOHRT<sup>HOH</sup>  
HOHRJ<sup>HOH</sup>  
HOHRJ<sup>HOH</sup>  
HOHRJ<sup>HOH</sup>  
HOHRS<sup>HOH</sup>  
HOHRS<sup>HOH</sup>  
HOHRZ<sup>HOH</sup>  
HOHRZ<sup>HOH</sup>  
HOHRZ<sup>HOH</sup>

HOHBTHOH  
HOHBTHOH  
HOHBTHOH  
HOHBJHOH

HOHBJHOH  
HOHBJHOH  
HOHBSHOH  
HOHBSHOH  
HOHBSHOH  
HOHBZHOH  
HOHBZHOH  
HOHBZHOH

HOHP<sup>THOH</sup>  
HOHP<sup>THOH</sup>  
HOHP<sup>THOH</sup>  
HOHPJ<sup>HOH</sup>  
HOHPJ<sup>HOH</sup>  
HOHPJ<sup>HOH</sup>  
HOHP<sup>SHOH</sup>  
HOHP<sup>SHOH</sup>  
HOHP<sup>SHOH</sup>  
HOHPZ<sup>HOH</sup>  
HOHPZ<sup>HOH</sup>  
HOHPZ<sup>HOH</sup>

(CGSEFLTZ)R L(TJSZ)

HOHCSHOH  
HOHGSHOH  
HOHSSHOH  
HOHES<sup>HOH</sup>  
HOHFS<sup>HOH</sup>  
HOHLSHOH  
HOHTS<sup>HOH</sup>  
HOHZS<sup>HOH</sup>

HOHCTHOH  
HOHGTHOH  
HOHSTHOH  
HOHETHOH  
HOHFTHOH  
HOHLTHOH  
HOHTTHOH  
HOHZTHOH

HOHCJHOH  
HOHGJHOH  
HOHSJHOH  
HOHEJHOH  
HOHFJHOH  
HOHLJHOH  
HOHTJHOH  
HOHZJ<sup>HOH</sup>

HOHCZHOH  
HOHGZHOH  
HOHSZHOH  
HOHEZ<sup>HOH</sup>  
HOHFZHOH  
HOHLZHOH  
HOHTZHOH  
HOHZZ<sup>HOH</sup>

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 HVZVH  
HOHVXHOH HVXVH  
HOHVAHOH HVAVH

HOHYWHOH HYWYH  
HOHYVHOH HYVYH  
HOHYWHOH HYYWH  
HOHYZHOH HYZYH  
HOHYXHOH HXYXH  
HOHYAHOH HYAYH

HOHZWHOH HZWZH  
HOHZVHOH HZVZH  
HOHZYHOH HYZZH  
HOHZZHOH HZZZH

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  
HOHWJHOH  
HOHWSHOH

HOHVTHOH  
HOHVJHOH  
HOHVSHOH

HOHYTHOH  
HOHYJHOH  
HOHYSHOH

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  
HOHFWHOH  
HOHFWHOH  
HOHFWHOH  
HOHFXHOH  
HOHFAHOH

HOHLWHOH  
HOHLYHOH  
HOHLVHOH  
HOHLZHOH  
HOHLXHOH  
HOHLAHOH

HOHTWHOH HTWTH  
HOHTYHOH HTYTH  
HOHTVHOH HTVTH  
HOHTZHOH HTZTH  
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  
HOHSSHOH  
HOHSZHOH  
HOHETHOH  
HOHEJHOH  
HOHESHOH  
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  
nonHbnnono  
nonNbnnono  
nonUbnono  
nonHjnnono  
nonNjnnono  
nonUjnnono  
nonHinono  
nonNinono  
nonUinono

nonHjnnono  
nonNjnnono  
nonUjnnono  
nonHpnono  
nonNpnono  
nonUpnono  
nonHhnnono  
nonNhnnono  
nonUhnono

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

nonHonono  
nonNonono  
nonUonono  
nonHdnono  
nonNdnono  
nonUdnono  
nonHgnono  
nonNgnono  
nonUgnono  
nonHđnnono  
nonNđnnono  
nonUđnnono

(DOQ)R L(ublijphmnr)

nonFunono  
nonFbnono  
nonFjnnono  
nonFnnonono

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

nonRjnono  
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

	(DOQ)R L (ceodqgđ)		
nonFunono		nonR <sup>o</sup> nono	nonOwnono
nonF <sup>b</sup> nono	nonD <sup>o</sup> nono	nonR <sup>d</sup> nono	nonOynono
nonF <sup>j</sup> nono	nonD <sup>d</sup> nono	nonR <sup>g</sup> nono	nonOznono
nonF <sup>n</sup> nono	nonD <sup>g</sup> nono	nonR <sup>đ</sup> nono	nonOxnono
nonF <sup>p</sup> nono	nonD <sup>đ</sup> nono		
	nonF <sup>o</sup> nono	nonBonono	nonQvnono
nonLunono	nonF <sup>d</sup> nono	nonB <sup>d</sup> nono	nonQwnono
nonL <sup>b</sup> nono	nonF <sup>g</sup> nono	nonB <sup>g</sup> nono	nonQynono
nonL <sup>j</sup> nono	nonF <sup>đ</sup> nono	nonB <sup>đ</sup> nono	nonQznono
nonL <sup>n</sup> nono	nonOonono		nonQxnono
nonL <sup>p</sup> nono	nonO <sup>d</sup> nono	nonPonono	(WVYZXAKR)R L
	nonO <sup>g</sup> nono	nonP <sup>d</sup> nono	(ceodqgđ)
nonT <sup>o</sup> nono	nonO <sup>đ</sup> nono	nonP <sup>g</sup> nono	
nonT <sup>b</sup> nono	nonQ <sup>o</sup> nono	nonP <sup>đ</sup> nono	nonWonono
nonT <sup>j</sup> nono	nonQ <sup>d</sup> nono		nonWdnono
nonT <sup>n</sup> nono	nonQ <sup>g</sup> nono	full > void	nonWgnono
nonT <sup>p</sup> nono	nonQ <sup>đ</sup> nono	(DOQ)R L(vwyzx)	nonWđnono
nonZunono	full > small	nonDvnono	nonVonono
nonZ <sup>b</sup> nono	(DOQ)R L(as)	nonDwnono	nonVdnono
nonZ <sup>j</sup> nono		nonDynono	nonV <sup>g</sup> nono
nonZ <sup>n</sup> nono	nonDanono	nonD <sup>z</sup> nono	nonVđnono
nonZ <sup>p</sup> nono	nonDsnono	nonDxnono	
	nonF <sup>a</sup> nono		nonY <sup>o</sup> nono
nonZhnono	nonF <sup>s</sup> nono	nonF <sup>v</sup> nono	nonYdnono
nonZhnono	nonOanono	nonF <sup>w</sup> nono	nonYgnono
nonZhnono	nonOsnono	nonF <sup>y</sup> nono	nonYđnono
nonZhnono	nonQ <sup>a</sup> nono	nonF <sup>z</sup> nono	
nonZhnono	nonQsnono	nonF <sup>x</sup> nono	nonZ <sup>o</sup> nono
			nonZdnono
full round >full round	(RBP)R L (ceodqg)	nonOvnono	nonZgnono

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

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  
nonFsnono  
nonLfnono  
nonLtnono  
nonLsnono  
nonTfnono

nonTtnono  
nonTsnono  
nonZfnono  
nonZtnono  
nonZsnono

Lowercase >  
UPPERCASE

straight>full round  
(udlijqhmna)R L  
(CGOQ)

nonnnOnono  
nonqOnono  
noniOnono  
nonjOnono  
nonuOnono  
nonaOnono

(bpo)R  
L(HMNUIKLP RBEFĐ)

nonoHnono  
nonpHnono  
nonbHnono  
nonđHnono  
nonoUnono  
nonpUnono  
nonbUnono  
nonđUnono  
nonoĐnono

nonpĐnono  
nonbĐnono  
nonđĐnono

straight>small round  
(udlijqhmna)R L(S)

nonnnSnono  
nonqSnono  
noniSnono  
nonjSnono  
nonuSnono  
nonaSnono

(s)R  
L(HMNUIKLP RBEF')

nonsHnono  
nonsUnono

straight>void  
(udlijqhmna)R  
L(WVYZXA)

nonnnWnono  
nonqWnono  
noniWnono  
nonjWnono  
nonuWnono  
nonaWnono

nonnnVnono

nonqVnono  
noniVnono  
nonjVnono  
nonuVnono  
nonaVnono

nonnnYnono  
nonqYnono  
noniYnono  
nonjYnono  
nonuYnono  
nonaYnono

nonnnZnono  
nonqZnono  
noniZnono  
nonjZnono  
nonuZnono  
nonaZnono

nonnnXnono  
nonqXnono  
noniXnono  
nonjXnono  
nonuXnono  
nonaXnono

nonnnAnono  
nonqAnono  
noniAnono  
nonjAnono  
nonuAnono

nonaAnono

(kvwyxz)R  
L(HMNUIKLP RBEFĐ)

nonkHnono  
nonkUnono  
nonkĐnono  
nonvHnono  
nonvUnono  
nonvĐnono  
nonwHnono  
nonwUnono

nonwĐnono  
nonyHnono  
nonyUnono  
nonyĐnono  
nonzHnono  
nonzUnono  
nonzĐnono  
nonxHnono  
nonxUnono  
nonxĐnono

straight>open  
(udlijqhmna)R L(TJS)

nonnnTnono  
nonqTnono  
noniTnono  
nonjTnono  
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)

nonsSnono

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)

nonsTsnono  
nonsJnono  
nonsSsnono

(ctfr) R L(S)

noncSnono  
nontSnono  
nonfSnono  
nonrSnono

void>void  
(kvwyzx)R L(WVYZXA)

nonkWnono  
nonvWnono  
nonwWnono  
nonyWnono  
nonzWnono  
nonxWnono

nonkVnono  
nonvVnono  
nonwVnono  
nonyVnono  
nonzVnono  
nonxVnono

nonkYnono  
nonvYnono

nonwYnono  
nonyYnono  
nonzYnono  
nonxYnono

nonkZnono  
nonvZnono  
nonwZnono  
nonyZnono  
nonzZnono  
nonxZnono

nonkXnono  
nonvXnono  
nonwXnono  
nonyXnono  
nonzXnono  
nonxXnono

nonkAnono  
nonvAnono  
nonwAnono  
nonyAnono  
nonzAnono  
nonxAnono

void>open  
(kvwyzx)R L(TJS)

nonkTnono  
nonvTnono  
nonwTnono

nonyTnono  
nonzTnono  
nonxTnono

nonkJnono  
nonvJnono  
nonwJnono  
nonyJnono  
nonzJnono  
nonxJnono

nonkSnono  
nonvSnono  
nonwSnono  
nonySnono  
nonzSnono  
nonxSnono

(ctfr) R L(WVYZXA)

noncWnono  
nontWnono  
nonfWnono  
nonrWnono

noncVnono  
nontVnono  
nonfVnono  
nonrVnono

noncYnono  
nontYnono

nonfYnono  
nonrYnono

noncZnono  
nontZnono  
nonfZnono  
nonrZnono

noncXnono  
nontXnono  
nonfXnono  
nonrXnono

noncAnono  
nontAnono  
nonfAnono  
nonrAnono

open>open  
(ctfr) R L(TJS)

noncTnono  
nontTnono  
nonfTnono  
nonrTnono

noncJnono  
nontJnono  
nonfJnono  
nonrJnon



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	

full > void  
(09) R L(4)

110411  
119411

000400  
009400

(72)R L (06)

117011  
117611  
112011  
112611

007000  
007600  
002000  
002600

full > open  
(09) R L(239)

110211  
110311  
110911  
119211  
119311  
119911

000200  
000300  
000900  
009200  
009300  
009900

(654)R L (06)

116011  
116611  
115011  
115611  
114011  
114611

006000  
006600  
005000  
005600  
004000  
004600

small > small  
(8356) R L(98)

118911  
118811  
113911  
113811  
115911  
115811

116911  
116811

008900  
008800  
003900  
003800  
005900  
005800  
006900  
006800

small > void  
(8356) R L(4)

118411  
113411  
115411  
116411

008400  
003400  
005400  
006400

(72)R L(98)

117911  
112911  
117811

112811

007900  
002900  
007800  
002800

small > open  
(8356) R L(239)

118211  
118311  
118911

113211  
113311  
113911

115211  
115311  
115911

116211  
116311  
116911

008200  
008300  
008900

003200  
003300

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		

