

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  
nonnuđnono  
nonnqonono  
nonnqgnono  
nonnqđnono  
nonnjonono  
nonnjgnono  
nonnjđnono  
nonnionono  
nonnignono

nonniđnono  
nonnnonono  
nonnngnono  
nonnnđnono  
nonnonono

(bpo)R L(ublijphmnr)  
nonnounono  
nonnobnono  
nonnojonon  
nonnoionon  
nonnononon

straight>small round  
(udlijqhmna)R L(as)  
nonnuanonono  
nonnusnono  
nonnqanono  
nonnqsnono  
nonnjanono  
nonnjsnono  
nonnaanonono  
nonnasnono  
nonnianono  
nonnisnono  
nonnlanono  
nonnlsnono  
nonnnanonono  
nonnnsnono

(s)R L(ublijphmnr)  
nonsunono

nonsbnono  
nonsnnonon  
nonsjnnonon  
nonslnnonon

straight>void  
(udlijqhmna)R  
L(vwyzx)

nonnavnono  
nonnaynono  
nonnaznono  
nonnaxnono  
nonnuvnono  
nonnuynono  
nonnuznono  
nonnuxnono  
nonnqvnono  
nonnqwnono  
nonnqynono  
nonnqznono  
nonnqxnono  
nonnjvnono  
nonnjynono  
nonnjznono  
nonnjxnono  
nonnivnono  
nonniynono  
nonniznono  
nonnixnono  
nonnvnono

nonynono  
nonznono  
nonxnono

(kvwyzxr)R  
L(ublijphmnr)  
nonrunono  
nonrlnono  
nonrjnono  
nonrpnono  
non**rb**nono

non**k**unono  
non**k**lnono  
non**k**jnono  
nonkpnono  
non**k**bnono

nonvunono  
non**v**lnono  
non**v**jnono  
nonvpnono  
non**v**bnono

non**z**unono  
non**z**lnono  
nonzjnono  
nonzpnono  
non**z**bnono

nonxunono  
non**x**lnono

nonxjnono  
nonxpnono  
nonxbnono  
  
straight>open  
(udlijgqhmna)R L(afts)

nonufnono  
nonuanono  
non**u**tnono  
nonusnono  
nonqfnono  
nonqanono  
non**q**tnono  
nonqsnono  
nonjfnono  
nonjanono  
nonjtnono  
non**j**snono  
nonnfnon  
non**n**anon  
nonntnon  
non**n**snon

(ctfre) R L(ublijphmnr)

noncunono  
non**c**bnono  
noncnonon  
non**c**jnonon  
nonclonon  
noncpnonon  
non**t**unono

non**t**bnono  
nontnonon  
nontjnonon  
non**t**lonon  
nontpnonon  
non**f**unono  
nonfbnono  
non**f**nnonon  
nonfjnonon  
non**f**lonon  
nonfpnnonon  
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  
non**o**enono  
non**o**gnono  
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**vnono  
nonownono  
nonpwonon  
nonbwnono  
nongwnono

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

(kvwyzx)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  
nonpsonon  
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(vwyzx)  
nonsvnonon  
nonswnonon  
nonsynonon  
nonsznonon  
nonsxnonon

(kvwyzx)R L(as)  
nonkanonon  
nonksnonon  
nonvanonon  
nonvsnonon  
nonwanonon  
nonwsnonon  
nonyanonon  
nonysnonon  
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  
nonwvnonon  
nonwwnnonon  
nonwynnonon  
nonwznnonon  
nonwxznnonon  
nonyvnonon  
nonywnnonon  
nonyynnonon  
nonyznnonon  
nonyxnnonon  
nonzvnonon  
nonzwnnonon  
nonzynnonon  
nonzznnonon  
nonzxznnonon  
nonxvnonon  
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  
nontvnonon  
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  
HOHU<sup>O</sup>HOH  
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  
OHOU<sup>S</sup>HOH  
  
(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  
OHOU<sup>J</sup>HOH

OHOHSHOH  
OHONSHOH  
OHOUSHOH  
  
(CGSEFLTZR  
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>DW</sup>HOH  
HOH<sup>P</sup>WHOH  
HOHOWHOH  
HOHQWHOH  
HOH<sup>P</sup>VHOH  
HOHD<sup>DV</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  
HOHQAHOH  
  
(WVYZXAKR)R L(CGOQ)  
HOHWOHOH  
HOHVOHOH  
HOHYOHOH  
HOHZOHOH  
HOH<sup>X</sup>OHOH  
HOHAOHOH  
HOH<sup>K</sup>OHOH  
HOH<sup>R</sup>OHOH

<sup>full</sup>>open  
(DOQ)R L(TJSZ)

HOHDTHOH  
HOH<sup>P</sup>THOH  
HOHOTHOH  
HOHQTHOH  
HOHDJHOH  
HOH<sup>P</sup>JHOH  
HOHOJHOH  
HOHQJHOH  
HOHDSHOH  
HOH<sup>P</sup>SHOH  
HOHOSHOH  
HOHQSHOH  
HOH<sup>DZ</sup>HOH  
HOH<sup>P</sup>ZHOH  
HOH<sup>OZ</sup>HOH  
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)

HOHWS<sup>HOH</sup>  
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>  
HOHRSHOH  
HOHRSHOH  
HOHRSHOH  
HOHRZ<sup>HOH</sup>  
HOHRZ<sup>HOH</sup>  
HOHRZ<sup>HOH</sup>

HOHBTHOH  
HOHBTHOH  
HOHBTHOH  
HOHBJ<sup>HOH</sup>

HOHBJ<sup>HOH</sup>  
HOHBJ<sup>HOH</sup>  
HOHBS<sup>HOH</sup>  
HOHBS<sup>HOH</sup>  
HOHBS<sup>HOH</sup>  
HOHBZ<sup>HOH</sup>  
HOHBZ<sup>HOH</sup>  
HOHBZ<sup>HOH</sup>

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)

HOHCS<sup>HOH</sup>  
HOHGSHOH  
HOHSSHOH  
HOHES<sup>SHOH</sup>  
HOHFS<sup>SHOH</sup>  
HOHLS<sup>HOH</sup>  
HOHTS<sup>SHOH</sup>  
HOHZS<sup>SHOH</sup>

HOHCT<sup>HOH</sup>  
HOHGTHOH  
HOHST<sup>HOH</sup>  
HOHETHOH  
HOHFT<sup>HOH</sup>  
HOHLT<sup>HOH</sup>  
HOHTT<sup>HOH</sup>  
HOHZT<sup>HOH</sup>

HOHCJ<sup>HOH</sup>  
HOHGJ<sup>HOH</sup>  
HOHSJ<sup>HOH</sup>  
HOHEJ<sup>HOH</sup>  
HOHFJ<sup>HOH</sup>  
HOHLJ<sup>HOH</sup>  
HOHTJ<sup>HOH</sup>  
HOHZJ<sup>HOH</sup>

HOHCZ<sup>HOH</sup>  
HOHGZ<sup>HOH</sup>  
HOHSZ<sup>HOH</sup>  
HOHEZ<sup>HOH</sup>  
HOHFZ<sup>HOH</sup>  
HOHLZ<sup>HOH</sup>  
HOHTZ<sup>HOH</sup>  
HOHZZ<sup>HOH</sup>

void>void  
(WVYZXA KR)R  
L(WVYZXA)

HOHWVHOH HWWVWH  
HOHWVHOH HWVVWH  
HOHWYHOH HWYVWH  
HOHWZHOH HWZVWH  
HOHWXHOH HWXVWH  
HOHWAHOH HWA VWH  
HOHWÆHOH HWÆVWH

HOHVWHOH HVVWHO  
HOHVWHOH HVVWHO  
HOHVYHOH HVYVH  
HOHVZHOH HVZVH  
HOHVXHOH HVXVH  
HOHVAHOH HVAVH

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

HOHZWHOH HZWZH  
HOHZVHOH HZVZH  
HOHZYHOH HZYZH  
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  
HOHFYHOH  
HOHFVHOH  
HOHFZHOH  
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  
HOHSSHOTH  
HOHSZHOH  
HOHETHOH  
HOHEJHOH  
HOHESHOTH  
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  
nonHpnnono  
nonNpnnono  
nonUpnnono  
nonHhnnono  
nonNhnnono  
nonUhnnono

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

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

(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  
nonHsnnono  
nonNsnnono  
nonUsnnono

(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> nonono	nonOwnono
nonF <sup>b</sup> nonono	nonD <sup>o</sup> nonono	nonR <sup>d</sup> nonono	nonOynono
nonF <sup>j</sup> nonono	nonD <sup>d</sup> nonono	nonR <sup>g</sup> nonono	nonOznono
nonF <sup>n</sup> nonono	nonD <sup>g</sup> nonono	nonR <sup>đ</sup> nonono	nonOxnonono
nonF <sup>p</sup> nonono	nonD <sup>đ</sup> nonono		
	nonF <sup>o</sup> nonono	nonBonono	nonQvnonono
nonLunono	nonF <sup>d</sup> nonono	nonB <sup>d</sup> nonono	nonQwnono
nonL <sup>b</sup> nonono	nonF <sup>g</sup> nonono	nonB <sup>g</sup> nonono	nonQynono
nonL <sup>j</sup> nonono	nonF <sup>đ</sup> nonono	nonB <sup>đ</sup> nonono	nonQznonono
nonL <sup>n</sup> nonono	nonOonono		nonQxnonono
nonL <sup>p</sup> nonono	nonO <sup>d</sup> nonono	nonPonono	(WVYZXAKR)R L
	nonO <sup>g</sup> nonono	nonP <sup>d</sup> nonono	(ceodqgđ)
nonT <sup>o</sup> nonono	nonO <sup>đ</sup> nonono	nonP <sup>g</sup> nonono	
nonT <sup>b</sup> nonono	nonQ <sup>o</sup> nonono	nonP <sup>đ</sup> nonono	nonWonono
nonT <sup>j</sup> nonono	nonQ <sup>d</sup> nonono		nonWdnonono
nonT <sup>n</sup> nonono	nonQ <sup>g</sup> nonono	full > void	nonWgnono
nonT <sup>p</sup> nonono	nonQ <sup>đ</sup> nonono	(DOQ)R L(vwyzx)	nonWđnonono
nonZunono	full > small	nonDvnonono	nonVonono
nonZ <sup>b</sup> nonono	(DOQ)R L(as)	nonDwnono	nonVdnonono
nonZ <sup>j</sup> nonono		nonDynono	nonV <sup>g</sup> nonono
nonZ <sup>n</sup> nonono	nonDanono	nonD <sup>z</sup> nonono	nonVđnonono
nonZ <sup>p</sup> nonono	nonDsnonono	nonDxnonono	
	nonF <sup>a</sup> nonono		nonY <sup>o</sup> nonono
nonZhnonono	nonF <sup>s</sup> nonono	nonF <sup>v</sup> nonono	nonYdnonono
nonZh <sup>n</sup> nonono	nonOanono	nonF <sup>w</sup> nonono	nonYgnono
nonZh <sup>n</sup> nonono	nonOsnono	nonF <sup>y</sup> nonono	nonYđnonono
nonZh <sup>n</sup> nonono	nonQ <sup>a</sup> nonono	nonF <sup>z</sup> nonono	
nonZh <sup>n</sup> nonono	nonQsnono	nonF <sup>x</sup> nonono	nonZ <sup>o</sup> nonono
			nonZdnonono
full round >full round	(RBP)R L (ceodqg)	nonOvnonono	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		nonBxnono	nonRsnono	nonLsnono
	(ceodqgǎ)	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	nonPxnono	nonRtnono	
nonKnono		(RBPG)R L(as)		nonRsnono	void>void
nonKdnono	nonSonono		nonGvnono		(WVYZXAKR)R
nonKgnono	nonSdnono	nonRanono	nonGwnono	nonBfnono	L(vwyzx)
nonKǎnono	nonSgnono	nonRsnono	nonGynono	nonBtnono	
	nonSǎnono	nonBanono	nonGznono	nonBsnono	nonWvnono
nonRnono		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			nonWanono	nonGfnono	nonVvnono
(DOQ)R L(fts)	nonFonono		nonWsnono	nonGtnono	nonVwnono
	nonFdnono	small>void	nonVanono	nonGsnono	nonVynono
nonDfnono	nonFgnono	(RBPG)R	nonVsnono		nonVznono
nonDtnono	nonFǎnono	L(vwyzx)	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	nonpĐnono	nonqVnono	nonaAnono
nonTsnono	nonbĐnono	noniVnono	
nonZfnono	nonđĐnono	nonjVnono	(kvwyx)R
nonZtnono		nonuVnono	L(HMNUIKLPRBEFĐ)
nonZsnono	straight>small round	nonaVnono	
	(udlijgqhmna)R L(S)		
		nonnYnono	nonkHnono
Lowercase >	nonnSnono	nonqYnono	nonkUnono
UPPERCASE	nonqSnono	noniYnono	nonkĐnono
	noniSnono	nonjYnono	nonvHnono
straight>full round	nonjSnono	nonuYnono	nonvUnono
(udlijqhmna)R L	nonuSnono	nonaYnono	nonvĐnono
(CGOQ)	nonaSnono		nonwHnono
nonnOnono		nonnZnono	nonwUnono
nonqOnono	(s)R	nonqZnono	nonwĐnono
noniOnono	L(HMNUIKLPRBEF')	noniZnono	nonyHnono
nonjOnono		nonjZnono	nonyUnono
nonuOnono	nonsHnono	nonuZnono	nonyĐnono
nonaOnono	nonsUnono	nonaZnono	nonzHnono
			nonzUnono
(bpo)R	straight>void	nonnXnono	nonzĐnono
L(HMNUIKLPRBEFĐ)	(udlijgqhmna)R	nonqXnono	nonxHnono
	L(WVYZXA)	noniXnono	nonxUnono
nonoHnono		nonjXnono	nonxĐnono
nonpHnono	nonnWnono	nonuXnono	
nonbHnono	nonqWnono	nonaXnono	straight>open
nonđHnono	noniWnono		(udlijgqhmna)R L(TJS)
nonoUnono	nonjWnono	nonnAnono	
nonpUnono	nonuWnono	nonqAnono	nonnTnono
nonbUnono	nonaWnono	noniAnono	nonqTnono
nonđUnono		nonjAnono	noniTnono
nonoĐnono	nonnVnono	nonuAnono	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)	nonwYnono	nonyTnono	nonfYnono
nonsTsnono	nonyYnono	nonzTnono	nonrYnono
nonsJnono	nonzYnono	nonxTnono	
nonsSsnono	nonxYnono		noncZnono
	nonkZnono	nonkJnono	nontZnono
(ctfr) R L(S)	nonvZnono	nonvJnono	nonfZnono
noncSnono	nonwZnono	nonwJnono	nonrZnono
nontSnono	nonyZnono	nonyJnono	
nonfSnono	nonzZnono	nonzJnono	noncXnono
nonrSnono	nonxZnono	nonxJnono	nontXnono
			nonfXnono
		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)		009600
119111		110011	008000
110111	117111	110611	008600
	112111	119011	
		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 F7 6T T7
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	
void > void	115411		
(72)R L(4)	114411	fT fY	
		Qj Qy Qp Qj F1 tA gT gV	
117411	006400	gX	
	005400		

