* +) 'A]``]cb'6ccgh'Zcf': `cf]XU': Ufa Yfg'hc FYWcj Yf'Zfca '<i ff]WUbYg°</pre>



<YbXfm'7ci bhmž: `cf]XUž'I G5'!'=b'U'g][b]Z]WUbh'a cj Y'Zcf
: `cf]XU g'U[f]W' `hi fU`gYWhcfž'I "G"'GYWfYhUfmcZ'5[f]W' `hi fY'6fcc_Y
@''Fc``]bg'\Ug'g][bYX'U'` *+) "- 'a]``]cb'V`cW_'[fUbh'U[fYYa Ybh
k]h\ 'h\Y': `cf]XU'8YdUfha Ybh'cZ'5[f]W' `hi fY'UbX'7cbgi a Yf
GYfj]WYg"'H\]g'Z bX]b[ž'Ubbci bWYX'fYWYbh`mž'hUf[Yhg'fYWcj Yfm
YZZcfhg'Zcf'ZUfa Yfg'[fUdd`]b['k]h\ 'h\Y'UZhYfa Uh\ 'cZ'<i ff]WUbYg
\$\text{\t

H\]g`Z]bUbW]U``Ugg]ghUbWY`Wca Yg`Ug`dUfhicZ`U`VfcUXYf``` \$`V]``]cbX]gUghYf`fY`]YZ'YZZcfh`gUbWh]cbYX`Vm`h\Y`5a Yf]WUb`FY`]YZ'5Wh": `cf]XU g`ZUfa Yfg`\Uj Y`ZUWYX`cj Yfk\Y`a]b[``cggYgž'k]h\`h\Y\U[f]W'`hi fU``gYWhcf`]bW'ff]b[`XUa U[Yg`YI WYYX]b[``'\V]``]cb`Zfcah\Y`\i ff]WUbYg`a Ybh]cbYX"'=b`dUfh]W'`Ufž'<i ff]WUbY`<Y`YbYfUj U[YX`cj Yf`*`a]``]cb`UWfYg`cZ`U[f]W'`hi fU```UbXž'k\]`Y`A]`hcbU`gc`WUi gYX`\Uj cWUWfcgg`a cfY`h\Ub') "+`a]``]cb`UWfYg"`H\]gZ bX]b[`WUb h`Wca Y`hcc`qccb"

=a dUWhcb: Ufa Yfg UbX h\Y =bXi ghfm

 $H\Y'[fUbh'k]```Ugg]gh'dfcXi WYfg']b'Wcibh]Yg'XYg][bUhYX'Ug'df]a Ufm cf'Wcbh][icig'X]gUghYf'UfYUg']b'&$&'`UbX'&$&("'\delta'U]a g'hc'Wcj Yf U'fUb[Y'cZ'XUa U[Ygž']bWi X]b[']bZfUghfi Whi fY'UbX'gdYW]Z]W`cggYg]b'h\Y'W]hfi g'UbX'h]a VYf'gYWhcfg"'H\Y'U[f]W'`hi fY'`cgg'Ygh]a UhYg Zfca'h\Y'fYWbh'\iff]WUbY'gYUgcbg'UfY'ghU[[Yf]b[ž'k]h\'U | b]j Yfg]hm'cZ': `cf]XU'fYdcfh'dfc'YWh]b['bYUf`m'`-+*'a]``]cb']b `cggYg'Zfca'h\Y'&$&('\iff]WUbY'gYUgcb'U`cbY"'Fc``]bg'\Ug i bXYfgWcfYX'h\Uh'h\Y'[fUbhYX'ZibXg'k]``\Y`d'dUjY'h\Y'k Um'Zcf fYWcjYfmž'k\]W\']g'YgdYW]U``m'bYYXYX'[]j Yb'h\Y'Wca dcibXYX W\U``Yb[Yg'ZUfaYfg'ZUWY'hcXUm'$

Cb'Ubch\Yf'bchYž'h\Y'U[f]Wi'hifU`gYWhcf']g'Zifh\Yf'Wcad`]WUhYX
Vm'h\Y'dc`]h]WU`X]gWcifgY'giffcibX]b['ibXcWiaYbhYX'`UVcf"'H\Ydig\'Zfca'<a Y`UbX'GYWif]hm'GYWfYhUfm'?f]gh]'BcYa'Zcf'ghf]WhYfXYdcfhUh]cbg'\Ug'fU]gYX'WcbWifbg'k]h\]b'h\Y']bXighfm"'5g
fYdcfhYX'Vm'@c WU`'%\$ž'h\YfY'k]``'VY'bc'UabYghm'Zcf
ibXcWiaYbhYX'a][fUbhg"':UfaYfg'\UjY'VYYb'UXj]gYX'h\Uh'h\Ymk]``'VYUf'h\Y'fYgdcbg]V]`]hm'Zcf'ibXcWiaYbhYX'kcf_Yfgž'k]h\cihh\Y'dfcj]g]cb'cZ'W]h]nYbg\]d"'GYWif]b['`UVcf'k\]'Y'aU]bhU]b]b[dfcdYf']aa][fUh]cb'dc`]W]Yg'dfYgYbhg'U'dYfg]ghYbh'W\U``Yb[Y"

ChYf5jU]YYFYgcifWyg

: `cf]XU']g'U`gc'ZUW]`]hUh]b['UXX]h]cbU`'gi ddcfh'h\fci [\'h\Y 6i g]bYgg'FYgci fW''UbX'5ggYgga Ybh'7YbhYf'fbF57Ł'Uh'h\Y <]``gVcfci [\'7ci bhm'9bhfYdfYbYi f'7c``UVcfUh]j Y'7YbhYf'' 5`h\ci [\'h\]g'WYbhYf'WcgYX'hc'h\Y'di V`]Wcb'A Um'%) \check{z} *\$&) \check{z}

 $\label{thm:prop:condition} Vi g]bYgg`ck bYfg`WUb`gh]```Udd`m`Zcf`X]gUghYf`Ugg]ghUbW'``cUbg h\fci [\`h\Y`I "G"`Ga U```6i g]bYgg`5Xa]b]ghfUh]cb`fG65Ł`i bh]` gdYW]Z]YX`XYUX`]bYg"`DUfh]W'`Uf`mž`Udd`]WUh]cbg`Zcf`YWcbca]W]b^I fm WUb`VY`gi Va]hhYX`i bh]``<math>\not\Rightarrow$ `m`%%ž`&\$&) ž`Ybgi f]b[`h\Uh YbhfYdfYbYi fg`\Uj Y`U``]ZY`]bY`Ug`h\Ym`bUj][UhY`h\fci [\`fYWcj Yfm"

H\Y'G65 g'dfc[fUa g'ZcW' g'bch'' fgh'cb'U[f]W' `hi fY'Vi h'U`gc'YI hYbX hc'VfcUXYf'Vi g]bYgg'fYWcj Yfmž'dfcj]X]b['U'gUZYhm'bYh'Zcf'h\cgY gYj YfY`m']a dUWhYX"'9a d`cmYfgž']h']g'YbWci fU[YXž'g\ci `X'g\UfY X]gUghYf'Ugg]ghUbW']bZcfa Uh]cb'k]h\'h\Y]f'hYUa gž'Ybgi f]b['h\Uh Yj YfmcbY'WUb'hUd']bhc'h\Y'fYgci fWYg'Uj U]`UV`Y"'5g'k Y'`cc_ U\YUXž'h\Y'I "G"'8YdUfha Ybh'cZ'5[f]W'`hi fY']g'fUa d]b['i d fYWcj Yfm'dfc[fUa g'UbX']bgi fUbW''Zcf'ZUfa Yfg'UZZYWhYX'Vm bUhi fU``X]gUghYfg i bXYfgWcf]b['U'Wca dfY\Ybg]j Y'Wca a]ha Ybh hc'\Y`d': `cf]XU'fYVi]`X"

H\Y'fYg]`]YbW'cZ: `cf]XU g'U[f]W'`hi fU``Wca a i b]hm']g
Wca a YbXUV`Y/k]h\`Ua d`Y'gi ddcfh'UbX'cb[c]b['fYWcj Yfm'YZZcfhgž
h\YfY g'\cdY'Zcf'U'Vf][\hYf'Zi hi fY"'H\Y'fcUX'U\YUX'a Um'gh]```VY
`cb[žVi h'k]h\'Zi bXg'Zck]b['UbX'Ugg]ghUbW''Uj U]`UV`Yž': `cf]XU
ZUfa Yfg'\Uj Y'U'Z][\h]b['W\UbW''hc'fYWU]a 'h\Y]f'`]j Y`]\ccX"

: cf'Zi fh\Yf']bZcfa Uh]cb'UbX'fYgci fWrg'fY[UfX]b['X]gUghYf
fYWcj Yfmž'fYg]XYbhg'WUb'W\YW_'cb`]bY'j]U'h\Y'<]``gVcfci [\
7ci bhm'k YVg]hY'UbX'YI d`cfY'Ugg]ghUbWr'cddcfhi b]h]Yg'cZZYfYX
Vm'h\Y'I "G"'8YdUfha Ybh'cZ'5[f]W' `hi fY"</pre>

8 Y hU]`g	
Cfh	< YbXfm [·] 7cibhmž [·] : `cf]XUž [·] IG5
EiY``Yb	• k k k "`c WU`%\$"Wca
	• \W\"[c]
	• k k k "mU\cc"Wca

6 Ygi W Yb 'G]Y i bg 'Ui Z 'a Y]b!k]Yb "b Yh