@cWU`: ccX`DUbhf]Yg: UWY 7f]g]g'Ug : YXYfU`: i bX]b[7i hg'6]hY < UfX</pre>

D]bY``Ug`7ci bhm`ZUWYg`f]g]b['ZccX'XYa UbX'Ug`ZYXYfU` Zi bX]b['W' hg`]a dUWh``cWU``ZccX'dUbhf]Yg``]_Y'; ccX GUa Uf]hUbž'gYfj]b['h\ci gUbXg'a cbh\`m"



 $D]bY``Ug`7cibhmž:`cf]XUžIG5!!*b`U`hfciV`]b[`hfYbX`h\Uh']g gk YYd]b[`UWfcgg`h\Y`bUh]cbž'ZccX`dUbhf]Yg`UfY`ZYY`]b[`h\Y`d]bW\ cZ'ZYXYfU``Z bX]b[`W'hgž'f gh'Ug`h\Y`XYaUbX`Zcf'ZccX`Ugg]ghUbW']g g_mfcW_Yh]b[`"CbY`dc][bUbh'YIUad`Y`]g`h\Y`; ccX`GUaUf]hUb : ccX`DUbhfm`]b`D]bY``Ug`DUf_ž'U`VYUWcb`cZ'\cdY`Zcf'aUbm`]b`h\Y Wcaaib]hm`g]bW'`%-+%"`H\Y`dUbhfmž'dUfh`cZ'h\Y`?]b[`cZ'DYUW'AYhfcdc`]hUb'7caaib]hm`7\ifW\ž``Uf[Y`m`fY`]Yg`cb`XcbUh]cbg`UbX[cjYfbaYbh`ZbX]b[ž'YgdYW]U``m`Zfcah\Y`IG85"`FYWYbh`mž\ckYjYfž'6Um'BYkg`-`fYdcfhg`h\Uh'W'hg`hc`IG85`ZbX]b[`UfYWf]h]WU``m`UZZYWh]b[`h\Y`dUbhfmg`UV]`]hm`hc`aYYh`h\Y`[fck]b[`bYYXZcf`Ugg]ghUbW''"$

H\Y'; ccX'GUa Uf]hUb': ccX'DUbhfm'W'ffYbh'm'gYfj Yg'VYhk YYb', \$\$

UbX'-\$\$']bX]j]Xi U`g'YUW\'a cbh\'Vi h'Ubh]W]dUhYg'h\Uh'bi a VYf'k]`gcUf'hc'cjYf'%\$ž\$\$\$'Vm'mYUfg'YbX"'H\]g'gif[Yž'Uhhf]Vi hYX'hcf]g]b['ZccX'df]W'g'UbX'YWcbca]Wi bWYfhU]bhmž'\Ug']bhYbg]Z]YX'h\YbYYX'Zcf'ZccX'gidd`]Yg"'8Ygd]hY'h\]g']bWfYUgYX'XYa UbXž'h\YdUbhfm'\Ug'fYWY]jYX'`Ygg'ZccXž'dUfh]W'`Uf`m'dfchY]b']hYa gž'XiY'hcZYXYfU`'ZibX]b['fYXiWh]cbg"'Jc`ibhYYf'?Ybbm'&\bgcbž'k\c'\UgVYYb'k]h\'h\Y'dUbhfm'Zcf'hkc'mYUfgž'Yad\Ug]nYg'h\Y'XYYdYb]b[Wf]g]g.'KY'UfY'bch'cb`m'dfcj]X]b['ZccX'Vih'U`gc'U'`]ZY`]bY'ZcfaUbm'ghfi[[`]b['ZUa]`]Yg"

5 Wfcgg h\YBUh]cb

H\Y'g]hi Uh]cb']b': `cf]XU'a]ffcfg'W\U``Yb[Yg'ZUWXX'Vm'ZccX'dUbhf]Yg UWfcgg'h\Y'I b]hYX'GhUhYg"' \direction ? UbgUg'7]hmž'Zcf']bghUbWYž'h\YfY'\Ug VYYb'U'a Uf_YX']bWfYUgY']b'ZUa]`]Yg'gYY_]b['\Y`dž'k]h\'XU]`mj]g]hg Uh'h\Y'FYXYa dhcf]gh'GcW]U`'GYfj]WYg'7YbhYf'bYUf`m'Xci V`]b['Zfca (\$'hc', \$'ZUa]`]Ygž'Ug'bchYX'Vm'? 71 F'''Gi W\'U'XfUa Uh]Wgd]_Y']b XYa UbX'fYgcbUhYg'k]h\'h\Y'VfcUXYf'hfYbX'gYYb'bUh]cbk]XYž k\YfY'ZYXYfU`'W' hg'hc'ZccX'Ugg]ghUbW''dfc[fUa g'`]_Y'h\Y Gi dd`Ya YbhU`'Bi hf]h]cb'5gg]ghUbW''Dfc[fUa 'fGB5DŁ'UfY'di hh]b[YI hfUcfX]bUfm'dfYggi fY'cb'ZccX'VUb_g"

 $\label{thm:local-condition} $$ H\Y' < Ufj\ YghYfg'ZccX'VUb_'fYdcfhYX'&''%- 'a \]``]cb'j \]g]hg'Zfca $$ \cigY\c`Xg``Ugh'mYUfž'fYZYWh]b[``U'k cffm]b[``f]gY']b'ZccX $$]bgYW'f]hmž'YgdYW]U``m']b'``][\h'cZ'\][\']bZ`Uh]cb'`UbX''cV'W'hg'' $$: YXYfU``Vi X[Yh'dfcdcgU`g'Wci `X'Zi fh\Yf'YI UWYfVUhY'h\YgY $$ WcbX]h]cbgž'k]h\'dchYbh]U``fYXi Wh]cbg'hc'GB5D'Zi bX]b['hchU`]b[`&* + 'V]``]cb'cj Yf'h\Y'bYI h'hYb'mYUfg'''Gi W\'W'hg'Wci `X'di g\'Ub Ygh]a UhYX''' 'a]``]cb'dYcd`Y'ci h'cZ'h\Y'dfc[fUa 'Ybh]fY`mž'W'hh]b[cZZ'j]hU``Ugg]ghUbWY'h\Uh'U``ck g'`ck !]bWca Y'ZUa]`]Yg'hc'di h'a YU`g cb'h\Y'hUV`Y''$

< YU`h\ 'UbX': i hi fY '7cb\\ fbg

5g'h\Y']a dUWhg'cZ'h\YgY'W' hg'i bZc`Xž'UXj cWUhYg'\Uj Y'fU]gYX U`Ufa g'cj Yf'h\Y'`cb[!hYfa '\YU`h\'ci hWca Yg'Zcf'j i `bYfUV`Y dcdi `Uh]cbg"'5WWcfX]b['hc'5; '8U]`mž'dfcdcgYX'W\Ub[Yg'Wci `X `YUX'hc'ghf]Wh'Y`][]V]`]hm'fYei]fYa Ybhg'h\Uh'Zi fh\Yf'a Uf[]bU`]nY $h cgY']b'bYYX'''7f]h]Wg'ZYUf'h Uh'h Y'ViX[Yh'W'hg'WciX''YUX'bchcb`m'hc']bWfYUgYX' ib[Yf'Vih'U`gc'hc' \YU`h \']ggiYg'UbX YXiWUh]cbU`'gYh VUW_g'h \Uh'UWWcadUbm'ZccX']bgYW'f]hm''$

H\Y'Vchhca ``]bY'fYa U]bg'WYUf.'Ug'Wca a i b]h]Yg'`]_Y'D]bY``Ug'DUf_ghf]j Y'hc'UXUdh'UbX'gi ddcfh'h\Y]f'a Ya VYfgž'h\Ym'ZUW'Ub'i d\]``
VUhh`Y'U[U]bgh'U'VUW_Xfcd'cZ'g\f]b_]b['[cj Yfba Ybh'Ugg]ghUbW'''
K]h\'ZUa]`]Yg'fY`m]b[']bWfYUg]b[`m'cb'ZccX'dUbhf]Ygž'h\Y'[fck]b[
XYa UbX'Wci d`YX'k]h\'Xk]bX`]b['gi dd`]Yg'fU]gYg'gYf]ci g
ei Ygh]cbg'UVci h'ci f'bUh]cbU``Wca a]ha Ybh'hc'UXXfYgg]b['\i b[Yf
UbX'gi ddcfh]b['h\Y'a cgh'j i `bYfUV`Y'Ua cb['i g"

#b 'h\ YgY 'W\ U``Yb[]b['h]a Ygž'dYf\ Udg'k Y 'Wci `X 'U```hU_Y 'U'dU[Y
Zfca 'h\ Y'; ccX 'GUa Uf]hUb': ccX 'DUb hfmg' Vcc_ž'gi ddcfh]b['ci f
`cWU``cf[Ub]nUh]cbg'UbX 'UXj cWUh]b['Zcf'Yei]hUV`Y 'UWWYgg'hc'ZccX"
5 ZhYf'U``ž' 9j Yfm'`]hh`Y 'V]h'\ Y`dg 'Ug'h\ Ym'gUmž'UbX']h'a][\ h'\ Uj Y'U
V][[Yf']a dUWh'h\ Ub'k Y 'WUb'gYY'f][\ h'bck "

8 Y hU]`g	
Cfh	D]bY``Ug'7cibhmž': `cf]XUž'lG5
EiY``Yb	• VUmbYkg-"Wca
	k k k "_W f"cf[
	• k k k "U[XU]`m"Wca

6Ygi WXYb 'G]Y 'i bg 'Ui Z. 'a Y]b!k]Yb "bYh