

A \Rightarrow BH!: \Rightarrow H!7Ua d. '7\Ya b]hn'ZÒfXYfh'' b[Y HU`YbhY'ZØf'X]Y'Ni _i bZh°

7\Ya b]hn. 'J YfUbghU`hi b[Yb'ni a 'A \Rightarrow H!: \Rightarrow H! 7 Ua dž A ÀXW YbVfi bW 'i bX'9i fcdU!8]g_i gg]cb"'9fZU\fYb'G]Y'a Y\f \emptyset VYf'k]W\h][Y'HYfa]bY°



 \pm 0.7\Ya b]hn'VfcXY`h'Yg'j cf'5_h]j]hÀhYb°8]Y'_ca a YbXYb'K cWXYb ghY\Yb'[Ubn']a 'NY]WXYb'XYf'A \pm 8 H!6]`Xi b[ž'Y]bYa '6YfY]WXž'XYf ghYh]['Ub'6YXYi hi b['[Yk]bbh'i bX'gdYn]Y``ZØf'?]bXYf'i bX \Rightarrow [YbX`]WXY'j cb'[fc»Ya 'K Yfh']gh'''J ca ''\$"' \Rightarrow b]'V]g'("' \Rightarrow `]'Z]bXYh XUg'A \pm 8 H!: \pm 1!7 Ua d'XYf'?]bXYf!'i bX' \Rightarrow [YbXgh]Zhi b[' \Rightarrow \UbbYi a ghUhh'''<]Yf'k]fX'_fYUh]j 'Xi fWXghUfhYh'

gWk | Yf][Yb 'gcn]U 'Yb 'J Yf\ \A`hb]ggYb 'f]Wk \hYh\zeta \ \OWk \hY ']\ \bYb 'Xi fWk X]Y 'J YfV]bXi b['j cb '?i bgh'i bX 'K]ggYbgWk UZh'bYi Y 'DYfgdY_h]j Yb V]YhYb 'i bX 'XUg' \Delta \hYfYggY 'Ub 'A Uh\ Ya Uh_\zeta \zeta \text{Cfa Uh}_\zeta \text{BUhi fk }]ggYbgWk UZhYb 'i bX 'HYWk b]_ 'fA \Delta \Hz \k YW_Yb " \ni 'XYb \DUfhbYfb 'X]YgYg'k]Wk \h][Yb 'Dfc \Y_hg'n\h\ `Yb'i bhYf' UbXYfYa 'X]Y \HYWk \b]gWk Y 'I \b]j Yfg]h\h\n'7\Ya \b]\hn\zeta 8 cb'6cgWc' GUWk gYb'gck]Y 'X]Y ?\Delta 8 9FJ 9F9\Delta \Delta I B; '7\Ya \b]\hn'Y"J "\zeta X]Y' [Ya Y]\bgUa 'XUfUb \UfVY]\hYb\zeta'b]YXf][gWk \k Y``][Y'5b[YVchY'ni f'JYfVYggYfi b['XYf 6]`Xi \b[gWk UbW'b' VYfY]\hni ghY``Yb"'

9]b HfYZZdi b_h ZØf A AXWXYb

5a 'A]hhk cW žXYb '&"'\$\']ž\`AXh\X]Y'; \Y]W\ghY\`i b[gVYUi ZhfU[hY'XYfGhUXh'7\Ya b]hn'ni 'Y]bYa 'A \AXW\YbVfi bW\'Y]b"'8]YgYf'Z]bXYh j cb'%%'V]g'%('I\f']b'XYf'Gd]bbYfY]'Ub'XYf'5\`hW\Ya b]hnYf'GhfU\()Y\) U'ghUhh"'8Yf'6fi bW\'V]YhYh'b]W\h'bi f'Y]bY'; Y`Y[Yb\Y]h'ni a 5i ghUi gW\\ž'gcbXYfb'Ui W\'Y]bYb'FUi a \\ž']b'XYa 'A \AXW\Yb a]hY]bUbXYf']bg'; Ygdf\AW\'_ca a Yb'_\ObbYb\"8Yf': c_i g'\`]Y[h XUfUi Z\z'X]Y'Gh\Af_i b['i bX': \OfXYfi b['XYf'A \AXW\Yb']b'XYf'GhUXh'ni i bhYfgh\OhnYb\"

9]b VYgcbXYfYg'<][\`][\hik]fX'Ui W\`XYf'8]g_i gg]cbgUVYbX
gY]bž'Ub XYa '6Øf[Yfa Y]ghYf]b '8 U[a Uf'FigWXY]bg_m'hY]`bY\a Yb
k]fX"'8]g_i h]Yfh'k]fX XUg'H\Ya U. '9i fcdÀ]gWXY'?i `hi f\Ui dhghUXh
7\Ya b]hn'&\$&) 'ni '; Ugh']b 'FY[YbgVi f["'K Ug']ghž'k Ug'V`Y]Vhž'k Ug
_Ubb'k YfXYb3 "'8]YgY'J YfUbghU`hi b['Z]bXYh'i a '%-'I\f']a
?i `hi fYbcfh'A &*']b 'FY[YbgVi f['ghUhh'i bX'V]YhYh'XYb 'FU\a Yb 'ZØf
gdUbbYbXY'8]g_i gg]cbYb'ØVYf'X]Y'_i `hi fY``Y'9bhk]W_`i b['XYf
GhUXh"

?fYUh]j]hÀhi bXiJYfbYhni b[i]a iA =BH! 6YfY]W

8 UgʻA \Rightarrow H!: \Rightarrow I! 7 Ua dʻn]Y`hʻXUfUi ZʻUVʻzʻgd]Y`Yf]gW\']bʻX]YʻK Y`hʻXYf A \Rightarrow H!: ÀW\YfʻY]bni hUi W\Ybʻzʻk UgʻZØfʻX]Yʻ9bhk]W_`i b[ʻ¹\ b[Yf HU`YbhYʻYggYbn]Y``]gh"ʻ6]`Xi b[ʻ]a 'A \Rightarrow H!6YfY]W\'k]fX`]a a Yf k]W\\h][Yf'zʻb]W\hʻbi fʻZØfʻX]Yʻ]bX]j]Xi Y``Yʻ9bhk]W_`i b[ʻzʻgcbXYfb

Ui WX 'ZØf'X]Y'k]fhgWX UZh']WX Y'Ni _i b Zh'8 Yi hgWX`Ub Xg"'8 Yf
ZfØ_]bX`]WX Y'Ni [Ub['ni 'A Uh\ Ya Uh]_ž' ±b Zc fa Uh]_ž
B Uhi fk]ggYbgWX UZhYb'i bX'HYWX b]_'k]fX'Xi fWX'Dfc 'Y_hY'k]Y'XUg
< Ui g'XYf'_`Y]bYb': cfgWX Yf'[YZÒfXYfhž'XUg'XYb'GdU» 'i bX'X]Y
B Yi []Yf'XYf'?]bXYf'Ub'X]YgYb'H\ Ya Yb'k YW_Yb'gc``"'<]Yf'_ÒbbYb
g]Y'YI dYf]a Ybh]YfYbž'ZcfgWX Yb'i bX'YbhXYW_Yb'' 'Y]b'[fc» Yg
5 VYbhYi Yf'ZØf'¹ b[Y': cfgWXYf'k]fX'Yfa Ò[`]WXhž'k]Y'_]bXYf!a]bh!
V]`Xi b["XY'nY][h"

9`hYfb'_ObbYb'XYb'A BH!9fZU\fi b[Yb']\fYf'?]bXYf'i bhYfghØhnYbX ni f'GY]hY'ghY\Ybž']bXYa 'g]Y' bhYfYggY'nY][Yb'i bX'J cfi fhY]'Y UVVUi Yb"; Ya Y]bgUa Y'9l dYf]a YbhY'ni '< Ui gY'cXYf'XUg'Gd]Y`Yb a]h'A BH!Gd]Y`nYi [Yb'_ObbYb'YVYbZU``g'\Y`ZYbž'X]Y'6Y[Y]ghYfi b[ZØf'K]ggYbgWXUZh'i bX'HYWXb]_'ni 'ZOfXYfb"'9]b ?cbghfi _h]cbg_UghYbž'Y]b'FcVchYf'cXYf'7\Ya]Y!9l dYf]a YbhY gcf[Yb'ZØf'YXY'AYb[Y'GdU»'i bX'[`Y]WXnY]h]['ZØfg'@YfbYb'

=a `, Vf][Yb`k]fX`CVYfVØf[Yfa Y]ghYf`Gj Yb`GW\i`nY`j ca `'\$"'\$b] V]g`%' "'\$\`]`]a `I f`Ui V`gY]b"'ŸbXYfi b[Yb`Ui g`U_hi Y``Ya `5b`Ugg g]bX`U``YfX]b[g'j cfVY\U`hYb"

± Zcfa]YfYb'G]Y'g]W\'[YfbY'Ui gZØ\f`]W\'ØVYf'XUg'A ±BH!: ±H!DfcY_h i bX'k]Y'Yg'X]Y'6]`Xi b[gW\UbW'b'j cb'?]bXYfb']b'7\Ya b]hn j YfVYggYfb'_Ubb''BÀ\YfY'±bZcfa Uh]cbYb'XUni 'Z]bXYb'G]Y'Ui Z'XYf K YVgY]hY'XYf'HYW\\b]gW\Yb'I b]j Yfg]hÀh'7\Ya b]hn"

8 Y hU]`g	
EiY``Yb	• k k k "WX Ya b]hn"X Y
	• kkk"hi!WXYab]hn"XY
	_]bXYf!a]bh!V]`Xi b["XY