

 $\label{eq:conditional} $JYf_Y\backslash fgi\ bZU^*]b\ GdYmYf.\ @Y]W\&h_fUZhfUX^_c^*]X]Yfh^a\]h^D_k\ \check{z} : U\backslash fYf'i\ bX^6Y]ZU\backslash fYf^*Y]W\&h^j\ Yf^Yhnh'' 8YhU]^g^\]Yf^*YgYb''$

± Y]bYa 'JYf_Y\fgi bZU``ž'XYf'g]W\ 'Ua '8]YbghU[UVYbX']b'GdYmYf YfY][bYhYž'_Ua 'Yg'ni 'Y]bYf'?c``]g]cb'nk]gW\Yb'Y]bYa @Y]W\h_fUZhfUX'i bX'Y]bYa 'D_k "'; Y[Yb'&%%) 'I\f'Zi\fYb'Y]bY '%!Â\f][Y': fUi ']b']\fYa '5i hc'i bX'Y]b'%+!Â\f][Yf'A Ubb''Ui Z gY]bYa '@Y]W\h_fUZhfUX'\]bhYfY]bUbXYf'X]Y'CVYfY'@Ub[[UggYYbh`Ub["'8]Y'G]hi Uh]cb'Yg_U`]YfhYž'U`g'X]Y'5i hcZU\fYf]b VYUVg]W\h][hYž'bUW\``]b_g']b'Y]bY'; fi bXghØW_gY]bZU\fh UVni V]Y[Yb'i bX'XUVY]'UVfi dh'UVVfYa ghY"

8 Yf '1 b[Y': U\fYf'XYg'@Y]W\h_fUZhfUXgž'XYf'b]W\h'fYW\hnY]h][
fYU[]YfhYž'_cbbhY'Y]bY'?c``]g]cb'a]h'XYa :: U\fnYi ['j cf']\a 'b]W\h
a Y\f'j Yf\]bXYfb"'8 Ug'F Ygi `hUh'k Uf'Y]b'Ghi fn'gck c\``ZØf']\b'U`g
Ui W\'ZØf'gY]bYb'%*!'À\f][Yb'6Y]ZU\fYfž'XYf'YVYbZU``g'a]h'XYa
Nk Y]fUX'i bhYfk Y[g'k Uf"'6Y]XY''1 b[Yb'A ÀbbYf'Yf`]hhYb'`Y]W\hY
J Yf`Yhni b[Yb'i bX'a i gghYb'ni f'k Y]hYfYb'6Y\UbX`i b[']b'Y]b
?fUb_Yb\Ui g'[YVfUW\h'k YfXYb"'8Yf'YbhghUbXYbY'GUW\gW\UXYb
k]fX'Ui Z'Yhk U'' "\$\$\$'9i fc'[YgW\Ahnh"

8 YhU]`g`XYg`JcfZU``g

8]Y'l a ghÀbXY'XYg'l bZU``g'k Y]gYb'Ui Z'X]Y'; YZU\fYb']a
GhfU» Ybj Yf_Y\f'\]bž']bgVYgcbXYfY'ZØf'A chcffUX!'i bX
Nk Y]fUXZU\fYfž'X]Y'cZh'Xi fW\'X]Y'; YgW\k]bX][_Y]h'i bX'XUg
J Yf\U`hYb'UbXYfYf'J Yf_Y\fghY]`bY\a Yf'VYY]bhfÀW\h][h'k YfXYb
_\ObbYb'''\delta X]YgYa ': U```\UbXY`hY'Yg'g]W\'i a 'Y]bY'j Yf\Ab[b]gj c``Y
J Yf_Yhhi b['j cb'l a qhAbXYbž'X]Y'`Y]W\h'\AhY'j Yfa]YXYb'k YfXYb

_ \dot{O} bbYb"'8Yf' \dot{A} b[Y': U\fYf'i bX'gY]b'6Y]ZU\fYf'g]bX'VY]XY'bcW\']bXYf'@Y\f!'i bX'9bhk]W_\i b[gd\UgY']\fYg': U\fj Yf\U\hYbg'i bX a ØggYb'XU\Yf'VYgcbXYfY'J cfg]W\h'k U\hYb'\UggYb"

9gʻ]ghʻk]WXh][žʻg]WX 'XYfʻdchYbh]Y``Ybʻ; YZU\fYbʻVYk i gghʻni ʻgY]bž X]Yʻ]a ʻGhfU» Ybj Yf_Y\fʻ`Ui Yfb" 8 YfʻJ cfZU```]ghʻY]b Y]bXf]b[`]WXYf FYa]bXYfʻXUfUbžʻk]YʻYbhgWXY]XYbXʻYgʻ]ghžʻX]Yʻ5VghÀbXYʻnk]gWXYb: U\fnYi [Ybʻg]WXYfʻni ʻ_U`_i `]YfYbʻi bXʻUi ZʻdʻÒhn`]WXY 6fYa ga UbÒj YfʻUbXYfYfʻ: U\fYfʻj cfVYfY]hYh'ni ʻgY]b"

 $8]Y T bZU``gWAXYb `g]bX `b]WAh`bi f`a UhYf]Y``Yf`BUhi fž`g]Y``UVYb Ui WA`Ya ch]cbU`Y`5i gk]f_i b[Yb`Ui Z`X]Y`6YhY]`][hYb`i bX`XYfYb : Ua]`]Yb"`Gc`WAY`9fY][b]ggY`\]bhYf`UggYb`cZh`Gdi fYb` `gck c\`d\mg]gWA`U`g`Ui WA`dgmWA]gWA''`8]Y`6YhfYi i b[`XYf`JYf`YhnhYb`k]fX VYgcbXYfg`]b`XYf`<Y]`i b[gd\UgY`j cb`6YXYi hi b[`gY]b"`8]Y GWACW_k Y``Ybž`X]Y`Xi fWA`XYb`I bZU```Ui g[Y`Ògh`k i fXYbž`YfZcfXYfb Y]b`gYbg]V`Yg`A UbU[Ya Ybh`Xi fWA`X]Y`5b[Y\Òf][Yb"$

Ni gÀhn`]WX 'k]fZh'X]YgY'5fh'j cb'J cfZÀ``Yb': fU[Yb'\]bg]WXh`]WX'XYf
: U\f[Yk c\b\Y]hYb'i bX'XYf'U``[Ya Y]bYb'J Yf_Y\fgg]WXYf\Y]h'Ui Z'
GhUh]gh]_Yb'nY][Ybž'XUgg']bgVYgcbXYfY']b'ghÀXh]gWXYb'6YfY]WXYb
Y]bY'ni bY\a YbXY'5bnU\`'j cb'l bZÀ``Yb'a]h'Nk Y]fÀXYfb
j YfnY]WXbYh'k]fX'': U\fUbZÀb[Yf'g]bX'\]YfVY]'VYgcbXYfg
[YZÀ\fXYhž'k Ug'Ui Z'XUg'ZY\`YbXY'9fZU\fi b['i bX'a Ò[`]WXYfk Y]gY
Ui WX'Ui Z'k Yb][Yf'Ui g[YdfÀ[hY'FYU_h]cbga Ò[`]WX_Y]hYb
ni fØW_[YZØ\fh'k YfXYb'_Ubb''

8 Ug'; YgWXY\Yb']b'GdYmYf'j YfXYi h`]WXh'X]Y'K]WXh][_Y]h'j cb
J Yf_Y\fgV]`Xi b['i bX'dfÀj Ybh]j Yb'A U» bU\a Ybži a '_ØbZh][Y
I bZÀ``Y'ni 'j Yfa Y]XYb"'9g``]Y[h']b'XYf'J YfUbhk cfhi b['U``Yf
J Yf_Y\fgU_hYi fYž'fY[Y`a À»]['Ub']\fYf'G]WXYf\Y]h']a
GhfU» Ybj Yf_Y\fini 'UfVY]hYb'i bX'g]WX'XYf'FY[Y`b'VYk i ggh'ni 'gY]b"

6 Ygi WX Yb 'G]Y 'i bg 'Ui Z. 'b!U["XY