

K]Yb ZØf _ `Y]bY 5VYbhYi fYf. 8]Y VYghYb Gca a YfUi gZ`Ø[Y a]h'?]bXYfb°

9f`YVYb`G]Y`K]Yb`a]h`?]bXYfb. '9bhXYW_Yb`G]Y`X]Y`VYghYb Gca a YfUi gZi [gn]Y`Yž'j cb`gWX ObYb`H]Yf[AfhYb`V]g`ni f 8cbUi]bqY`"



K]Ybž'² ghYffY]WX '! 'K]Yb']gh'Y]b'k U\fYg'GWX`UfUZZYb`UbX'ZØf _Y]bY'9bhXYW_Yf]bbYb'i bX'9bhXYW_Yf']a 'Gca a Yf"'9g'[]Vh'Y]bY J]Y`nU\`'Ub'5i gZi [gn]Y`Ybž'X]Y'?]bXYfb'b]WXh'bi f'j]Y`'GdU» ž gcbXYfb'Ui WX'gdUbbYbXY'@Yfba Ò[`]WX_Y]hYb'V]YhYb"'Jcb h]Yf]gWXYb'5VYbhYi Yfb'ØVYf'Ui ZfY[YbXY'K UggYfgd]Y`Y'V]g'\]b'ni _fYUh]j Yb'Dfc[fUa a Yb']a 'A i gYi a 'k]fX'ZØf''YXYb'_`Y]bYb ; `ØW_gf]hhYf'Yhk Ug'[YVchYb"'Gc'\Uh'X]Y'GhUXh'Y]bY'A Yb[Y'ni V]YhYbž'i a 'X]Y'\Y]» YghYb'HU[Y'a]h'ZfÒ\`]WXYb'@AWXY`b'i bX i bj Yf[Ygg`]WXYb'9f`YVb]ggYb'ni 'ZØ``Yb"'; Ughfc"bYk g'VYf]WXhYh ØVYf'Y]b][Y'XYf'VYghYb'Gca a YfUi gZØ[Ya]h'?]bXYfb"

9]b 'YW\ hYg' <][\`][\h']b 'XYf'GhUXh']gh'XYf'H]Yf[UfhYb GW\ $ObVfibb\check{z}$ 'XYf'XYb'[fO> hYb'Ncc']b'2 ghYffY]W\ 'VY\YfVYf[h'ibX

ØVYf'+\$\$'H]YfUfhYb'Ui g'U``Yf'K Y`h'nY][h"'<]Yf'_ObbYb'X]Y'?`Y]bYb
9`YZUbhYbž';]fUZZYb'i bX'?cU`Ug'VYghUi bYb"'I bX'k À\fYbX'g]Y'X]Y
H]YfY'VYcVUW\hYbž'_ObbYb'g]Y'g]W\'Ui Z'XYa 'Zf]gW\'YfOZZbYhYb
5VYbhYi Yfgd]Y`d`Uhn'i bX']a 'GhfY]W\Y`ncc'a]h'Nk Yf[n]Y[Yb'i bX
Ci YggUbhgW\UZYb'j Yf[bØ[Yb"': Øf'X]Y'U_h]j Y'6Yk Y[i b['ghY\Yb
K UggYf!'i bX'6Yk Y[i b[gghUh]cbYbž'Y]bY'?`YhhYfk UbX'gck]Y
nU\`fY]W\Y'<c`ng_i `dhi fYb'ni f'JYfZØ[i b["'BUW\'XYa 'h]Yf]gW\Yb
JYf[bØ[Yb'`ÀXh'XYf'Gd]Y`d`Uhn'j cf'XYf'CF5B; "Yf]Y'ni 'k Y]hYfYb
9bhXYW_i b[Yb'Y]b"

9]b gca a Yf`]WX Yf <]h. 8]Y 8cbUi]bgY`

9]b'k Y]hYfYf'k i bXYfVUfYf'C fh'ZØf': Ua]`]Yb']gh'X]Y'8 c b Ui]bgY`"
5i Z'XYb'&%'?]`ca YhYfb'X]YgYf': fY]nY]hcUgY'[]Vh'Yg'FUXk Y[Yž
]Xm``]gWXY'GhfÀbXY'i bX'[fØbY'K]YgYb"'9]b'K UggYfgd]Y`d`Uhn'j c b
) "\$\$\$'Ei UXfUha YhYfb'a]h'Y]bYa 'UbfY[YbXYb'6UWXž'K UggYfZU``
i bX'<Àb[YVfØW_Y'[UfUbh]Yfh'ghi bXYb`Ub[Yb'GdU»'ZØf'X]Y'?]bXYf"
I bX'ZØf'X]Y'5VYbhYi Yf`i gh][Yb'k UfhYh'X]Y'[fÒ»hY'gWkk]a a YbXY
HfUa dc`]bUb`U[Y'XYf'K Y`h' 'XUg' 8 Ubi VY'¾a d]b["'5i »YfXYa
gcf[h'XYf': Ua]`]YbVUXYghfUbX'a]h'&)\$'A YhYfb'?]YgghfUbXž
Gd]Y`d`Uhn'i bX'FYghUi fUbh'ZØf'Y]b'YbhgdUbbhYg'5a V]YbhY'ZØf'X]Y
[YgUa hY': Ua]`]Y"

=a 'B Uh]cbU`dUf_'@cVUi ž'HY]`'XYg'BUh]cbU`dUf_g'8cbUi!5iYbž_\ObbYb': Ua]`]Yb'X]Y'fi\][Y'GY]hY'XYf'BUhif'YfYVYb"'5iZ'XYa
BUhif'Y\fdZUX'CVYfY'@cVUiž'XYf'g]W\'ØVYf')'?]`caYhYf'YfghfYW_h
ibX'%' 'H\YaYbghUh]cbYb'iaZUgghž'YfZU\fYb'X]Y'_`Y]bYb'ibX
[fc>Yb'6Ygi W\Yf'GdUbbYbXYg'ØVYf'X]Y'\Y]a]gW\Y': `cfU'ibX
: UibU"'8]Y'8YW\Ubh`UW_Yž'XYb'&gYZghY['ibX'Y]b'6]VYf[Y\Y[Ygc``hY'aUb'g]W\'YVYbZU``g'b]W\h'Ybh[Y\Yb'`UggYb''\]Yf'_Ubb'X]Y
[UbnY': Ua]`]Y'Y]bY'UiZfY[YbXY'9IdYX]h]cb']bg'FY]W\'XYf'H]YfY
ibhYfbY\aYb"'KYf'[Ubn'bU\'Ub'XYb'H]YfYb'gY]b'aOW\hYž'gW\Uih]b'XYf'J]YbbU'?]Xg': Ufa'j cfVY]ž'kc'GhfY]W\Y`ncc'ibX'Dcbmg
XUfUiZ'KUfhYbžYbhXYW_h'ni'kYfXYb"

?fYUh]j Y 5i gZ`Ø[Y]a `A i gYi a gei Ufh]Yf

 $\exists a \ 'A \ i \ gYi \ a \ gei \ Ufh]Yf \ 'fA \ E \ E'Yf \ 'YVh'a \ Ub' _i \ 'hi \ fY \ 'Y' \ J]Y \ ZU \ 'h'i \ bX$

_fYUh]j Y = gd]fUh]cb"8]Y XmbUa]gWX Y @cWUh]cb V]YhYh Yui ZYbX gdUbbYbXY Dfc[fUa a Y ZØf?]bXYf" '9]b VYgcbXYfYg' <][\`][\hi]gh XUg'A E '5a cfYžY]b A]b][c`ZlG_i`dhi fYbdUf_žXYf'b]WXh'bi f'Gd]Y`i bX 'GdU» 'j Yfgdf]WXhžgcbXYfb'Ui WX : Ua]`]Yb'ni a 'GhUi bYb'Vf]b[h" 8 Ug'NCCA '?]bXYfa i gYi a ž'XUg'gdUbbYbXYb'Ni [Ub['ni]bhYfU_h]j Yb'GhUh]cbYb'UV', 'A cbUhYb'V]YhYhž']gh'dYfZY_h'ZØf k]ggVY[]Yf][Y'_Y]bY'9bhXYW_Yf"'5i WX 'XUg'8gWXi b[Y`K]YbžY]b H\YUhYf\Ui g'a]h'ØVYf') \$'DfcXi _h]cbYb'dfc'\\\YhYfzY][bYhg]WX\Yfj cffU[YbX'ZØf'_fYUh]j Y'A]h[YghU'hi b[ga Ò[`]WX_Y]hYb'Xi fWX?]bXYf"'8]Y'\]Yf'[YVchYbYb'Dfc[fUa a Y'ZÒfXYfb'b]WXh'bi f'XUg Gd]Y'zgcbXYfb'Ui WX'X]Y'J cfghY``i b[g_fUZh'XYf'?`Y]byb"

Bi hnYb'G]Y'X]Y'; Y`Y[Yb\Y]hž'a Y\f'ØVYf'XYb'H]Yf[UfhYb GW\ObVfi bb'ni 'YfZU\fYb'i bX'd`UbYb'G]Y' \Rightarrow fYb'bÀW\ghYb'5i gZi [a]h'XYb'H]ddg'j cb'; Ughfc"bYk g°

8 YhU]`g	
Cfh	K]Ybž ⁻² ghYffY]WX
EiY``Yb	• k k k "[Ughfc"bYk g
	k k k "nccj]YbbU"Uh

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