

781 GUW gYb!5b\U`h ghcddh i a ghf]hhYbY NU\`i b[Yb K Ug bi b3

5a '' "' \Rightarrow `]'&\$&) 'ghcddhY'X]Y'78I !@UbXhU[gZfU_h]cb']b GUW\gYb!5b\U`h'i a ghf]hhYbY'NU\`i b[Yb"'9fZU\fYb'G]Y'a Y\f \emptyset VYf'X]Y'<]bhYf[f \emptyset bXY"



8 Ugʻ9bXYʻX]YgYfʻNU\`i b[Ybʻ_ca a hˈb]W\hj cbʻi b[YZÀ\f" +bʻXYf
ÒZZYbh`]W\Ybʻ8]g_i gg]cbʻk i fXYʻ\Ài Z]['Ui ZʻX]YʻBchk YbX][_Y]h
\]b[Yk]YgYbž'X]Yʻ:]bUbnYbʻXYfʻdc`]h]gW\Ybʻ+bgh]hi h]cbYbʻghfYb[Yf

ni `\]bhYfZfU[Yb"'=\aa Yf\]b']gh'Yg'ZØf'6Øf[Yf'k]\W\h][ž'ni 'k]ggYbž k c\]b'ÒZZYbh`]\W\Y'; Y`XYf'Z]Y \Rightarrow Yb'i bX'k]Y'X]YgY'j Yfk YbXYh k YfXYbž'k Ug'Y]bY'nYbhfU`Y'5i Z[UVY'XYf'dc`]h]g\W\Yb ?ca a i b]_Uh]cb']gh'''@Ui h'O\dVQgd]Y`h'X]Y'\abZcfa]Yfi b['XYf'6Øf[Yf\O\YYf'dc`]h]g\W\Y'DfcnYggY'i bX'9bhg\W\Y]Xi b[Yb'Y]bY i b| Yfn]\W\h\UfY'Fc``Y']b'Y]bYf'8Ya c_fUh]Y''

8]Y'a YX]U`Y'Fc``Y

; YfUXY']b'NY]hYb'X][]hU`Yf'A YX]Yb']gh'Yg'i bi a [Àb[`]W\ž'XUgg dc`]h]gW\Y'5_hYi fY'i bX'6Øf[Yf'X]fY_h'a]hY]bUbXYf
_ca a i b]n]YfYb"'Dc`]h]gW\Y'?ca a i b]_Uh]cb']gh'gY]h'XYa '&\$"

*J\f\i bXYfh'U`g'Y]b'_ca a i b]_Uh]j Yf'DfcnYgg'ni 'j YfghY\Ybž']b

XYa '6Øf[Yfž'Cf[Ub]gUh]cbYb'i bX'DUfhY]Yb']b'Y]bYa 'ghYh][Yb

8]U`c['ghY\Yb"'8][]hU`Y'D`UhhZcfa Yb'Yf`Y]W\hYfb'X]Ygž'VYf[Yb

YXcW\'Ui W\'F]g]_Yb"'@Ui h'XYf'VdV'\UVYb'gcn]U`Y'A YX]Yb'X]Y
?ca a i b]_Uh]cbgghfi _hi fYb']b'XYf'Dc`]h]_'[fi bX`Y[YbX'j YfÀbXYfhži bX'Bi hnYf'g]bX'ni bY\a YbX'Ui W\'7cbhYbh!Dfcj]XYfž'k Ug'X]fY_hY

8]U`c[Y'nk]gW\Yb'6Øf[Yfb'i bX'Dc`]h]_Yfb'Yfa Ò[`]W\h"

XcWx k]fX Ui Wx 'XYf'J Yf'i gh'_`Ugg]gWx Yf'A YX]Yb 'U`g`nYbhfU`Y

Dzcfa Uh]cbgei Y``Y 'VYgcbXYfg'VY]'XYf''Øb[YfYb'; YbYfUh]cb

h\ Ya Uh]g]Yfh"'G]Y 'bY][Yb 'XUni ž' Dzcfa Uh]cbYb 'Ui g'X][]hU`Yb

? UbÀ`Yb 'ni 'VYn]Y\Ybž'X]Y 'cZh'cVYfZÀWx`]Wx 'i bX 'ZfU[a Ybh]Yfh'g]bX"

8]YgY '9bhk]W_`i b['_Ubb'XUni 'ZØ\fYbž'XUgg'k]Wxh][Y'H\Ya Yb

b]Wxh'X]Y 'bÒh][Y'6fY]hYbk]f_i b['YbhZU`hYbž'X]Y'g]Y'j YfX]Ybh

\AhhYb"

9]b 5i gV`]W_ Ui Z'X]Y b À W ghYb GW f]hhY

8]Y '78 I !: fU_h]cb']b'GUW\gYb!5b\U`h'd`Ubh'bUW\'XYa 'Ghcdd'XYf NU\`i b[Yb'Y]bY'i a ZUggYbXY'BYi VYk Yfhi b['XYf'V]g\Yf][Yb :]bUbn]Yfi b[gghfi _hi fYb"'<]YfVY]'gc```b]W\h'bi f'X]Y'JYfk YbXi b[XYf'; Y`XYf'Ui Z'XYb'DfØZghUbX'_ca a Ybž'gcbXYfb'Ui W\'X]Y': fU[Yžk]Y'gc`W\Y'A U» bU\a Yb']b'Ni _i bZh'hfUbgdUfYbhYf'[YghU`hYh k YfXYb'_ObbYb"'8Yf'8]U`c['a]h'XYf'^2 ZZYbh']W_Y]h'k]fX'XUVY]'j cb YbhgW\Y]XYbXYf'6YXYi hi b['gY]b"

 $\pm g[YgUa h'V`Y]Vh'X]Y`G]hi Uh]cb`gdUbbYbX`i bX`nY][hž'k]Y`k]Wkh][Yg`]ghž'XUgg`dc`]h]gWkY`DfcnYggY`hfUbgdUfYbh`i bX`VØf[YfbU\[YghU`hYh`k YfXYb"`8 UVY]`\UVYb`A YX]Ybž'gck]Y`X]Y`X][]hU`Y??ca a i b]_Uh]cbž'X]Y`5i Z[UVYž'X]YgY`DfcnYggY`Ui Zhi [fY]ZYb`i bX ni `h\Ya Uh]g]YfYb"`Gd]Y[Y``V]YhYh`XUVY]`Y]bYb`k]Wkh][Yb`FU\a YbZØf`X]Y`6Yf]WkhYfghUhhi b[`i bX`8]g_i gg]cb`ØVYf`U_hi Y``Y`dc`]h]gWkY9bhk]W_`i b[Yb"$

8 YhU]`g	
Cfh	GUWXgYb!5b\U`hž'8YihgWX`UbX
EiY``Yb	k k k "gd]Y[Y`"XY
	• ci hU[YXck b"Wca
	• k k k "VdV"XY

6Ygi WXYb G]Y i bg Ui Z b!U["bYh