

91 d`cg]cb]b B Yi ghUX h#< Ufn. Dc`]nY] ZUggh N][UfYhhYbUi hca Uh! GdfYb[Yf

BUWX 'Y]bYf'9I d`cg]cb'Ub'Y]bYa 'N][UfYhhYbUi hca UhYb']b BYi ghUXh#< Ufn'\Uh'X]Y'Dc`]nY]'nk Y]'HUhj YfXÀWXh][Y ZYgh[Ybca a Yb"

± XYf gh]``Yb BUW h'Ua 'GcbbhU['k i fXYb 'X]Y '6Yk c\bYf XYf Ghc`VYf[Yf GhfU» Y']b 'B Yi ghUXh#< Ufn 'Xi fW 'Y]b Y 'c\fYbVYhÀi VYbXY 9I d`cg]cb 'UVfi dh'Ui g'XYa 'GW\`UZ'[Yf]ggYb" '± XYb 'ZfØ\Yb A cf[Ybghi bXYb \UhhYb i bVY_UbbhY 'HÀhYf'Y]bYb N][UfYhhYbUi hca UhYb [YgdfYb[h" 8 Yf'J cfZU```gcf[hY 'ZØf'5i Zfi \fi bX'X]Y 'Dc`]nY]'bU\a 'gW\bY``'9fa]hh'i b[Yb 'Ui Z'

BUWN '_i fnYf': U\bXi b['_cbbhYb'X]Y'6YUa hYb'nk Y]'hUhj YfXÀWNh][Y 'I b[Y'A ÀbbYf'ZYghbY\a Yb"'8Yf'YfghY'J YfXÀWNh][Y']gh'Y]b &\langle A\f][Yf'A Ubb'Ui g'XYa '@UbX_fY]g'A UbgZY`X!GØX\Ufnž'k À\fYbX XYf'nk Y]hY'&\langle J\fY'U`h'i bX'Ui g'XYa '@UbX_fY]g'BcfX\Ui gYb ghUa a h"'8]Y'Dc`]nY]'VYf]WN hYhYž'XUgg'NYi [Yb'6YcVUWN hi b[Yb [Ya UWN h'\UhhYbž'X]Y'ni 'XYb': YghbU\a Yb'ZØ\fhYb"

8] Y 'Gdf Y b [i b ['i b X 'X] Y ': `i W\ h

8]Y 'VY]XYb 'A ÀbbYf 'ghY\Yb']a 'J YfXUW\hž'[Y[Yb'('I\f'acf[YbgXYb'N][UfYhhYbUi hcaUhYb']b'X]Y '@ Zh'[YgdfYb[h'ni'\UVYb"'BUW\XYf'9Id`cg]cb'gc``Yb'g]Y'g]W\'a]h'XYf'6Yi hYž'ni 'XYf'N][UfYhhYbibX'6Uf[Y`X'[Y\ÒfhYbž']b'Y]bYa'?`Y]bhfUbgdcfhYf'j ca'HUhcfhYbhZYfbh'\UVYb"'8]Y'Dc`]nY]'_cbbhY'Ub\UbX'XYf'NYi [YbUi ggU[YbfUgW\'<]bk Y]gY'Ui Z'XUg': `i W\hZU\fnYi ['i bX'X]Y'a Ò[`]W\Yb'HÀhYfYf\U`hYb"

 $8\,]Y\,^cgWX\,bY\,^*Y\,^cF\,@W\underline{}\,a\,\,Y\,^*Xi\,\,b\,[\,\,^*XYf\,^c5\,bk\,\,c\,\backslash\,b\,Yf\,^cgd\,]Y\,^*hY\,^cY\,]b\,Y$

YbhgWXY]XYbXY'Fc``Y']b'XYf'9fa]hh`i b[ž'XU'g]Y'X]Y'Dc`]nY]'a]h k]WXh][Yb'\dangle Zcfa Uh]cbYb'j Yfgcf[hYb"'Gc`WXY'ÒZZYbh`]WXYb 6YhY]`][i b[Yb'g]bX'ZØf'X]Y'GhfUZj YfZc`[i b['j cb'Ybcfa Yf 6YXYi hi b[ž'XU'g]Y'\Ài Z]['XYb'K Y['ni f'5i Z_`Àfi b['j cb JYfVfYWXYb'YVbYb"'8Yf'JcfZU```k]fZh'YXcWX'Ui WX': fU[Yb'ni G]WXYf\Y]hga U» bU\a Yb'i bX'XYa 'GWXi hn'ÒZZYbh`]WXYf'5b`U[Yb Ui Z'

8 Yf'J cfZU``YfY][bYhY'g]W\']bYf'BUW\hž'X]Y'ZØf'j]Y`Y'5bk c\bYfbcfa U`Yfk Y]gY'fi \]['i bX'i bUi ZZÀ``]['[Yk YgYb'k ÀfY"'Bi b']gh'X]Y; Ya Y]bXY']b'5i Zfi \f"'8]Y'Dc`]nY]'\Uhij Yfg]W\Yfhž'XUgg'X]Y
9fa]hh`i b[Yb'a]h'< cW\Xfi W_'k Y]hYf[YZØ\fh'k YfXYbž'i a 'k Y]hYfY

\$\delta Zcfa Uh]cbYb'ni 'gUa a Y`b'i bX'UbXYfY'a O[`]W\Y'?ca d`]nYb
Ui gZ]bX]['ni 'a UW\Yb"

BUWXXYa X]Y HÀhYf [YZUggh kifXYb

A]h'XYf': YghbU\a Y'XYf'VY]XYb'A ÀbbYf'k i fXY'Y]b'YfghYf'GW\f]hh']b F]W\hi b['; YfYW\h][_Y]h'[Ya UW\hž'XcW\'X]Y': fU[Y'V'Y]Vhž'k]Y'Yg ni 'Y]bYa 'gc'fUX]_U`Yb'GW\f]hh'_ca a Yb'_cbbhY''8]Y'9I d`cg]cb Y]bYg'N][UfYhhYbUi hca UhYb']gh'_Y]b'U``h\[A][`]W\Yf'Nk]gW\YbZU``/'g]Y ghY``h'b]W\h'bi f'Y]bY'GUW\VYgW\[AX][i b['XUf \bar{z} 'gcbXYfb'Ui W\'Y]b F]g]_c'Z \emptyset f'X]Y'OZZYbh`]W\Y'G]W\Yf\Y]h''

8]Y'Dc`]nY]'VYa Ø\h'g]W\'k Y]hYf\]bž'X]Y'<]bhYf[fØbXY'XYf'HUh'ni _`ÀfYb"'K Ug'a ch]j]YfhY'X]Y'A ÀbbYfž'Y]bYb'gc'XfUgh]gW\Yb I a [Ub['a]h'Y]bYa '5i hca UhYb'ni 'k À\`Yb3'6Yhf]YV`]W\Y'cXYf dYfgÒb`]W\Y'I a ghÀbXY'_ÒbbhYb'Y]bY'Fc``Y'[Ygd]Y`h'\UVYbž'XcW\V]q\Yf'[]Vh'Yg'_Y]bY'XYhU]``]YfhYb' &Zcfa Uh]cbYb'ni 'XYb'I fgUW\Yb"

8]Y'JcfZÀ``Y'k]Y'X]YgYf'g]bX'`Y]XYf'b]W\h']gc`]Yfh'i bX'gd]Y[Y`b a O[`]W\YfkY]gY'Y]bY'[fO) YfY'[YgY``gW\UZh`]W\Y'<YfUi gZcfXYfi b[k]XYf"'8]Y'8YVUhhY'ØVYf'¾[YbX_f]a]bU`]hÀh'i bX'gcn]U`Y'DfcV`YaY k]fX'Xi fW\gc`W\Y'HUhYb'bYi 'Ub[Yghc»Yb"'5i W\X]Y'fYW\h`]W\Yb?cbgYei YbnYb'ZØf'X]Y'VY]XYb'A AbbYf'k YfXYb'[YbUi 'VYcVUW\hYhžXU'g]Y'a]h'Yfbgh\UZhYb'GhfUZYb'fYW\bYb'a ØggYbž'X]Y'g]W\Ui g]\fYf'HUh'UV`Y]hYb"

8]Y'GhUUhgUbk U`hgW\UZh'k]fX'bi b'XYb': U``'dfØZYb'i bX'X]Y
bÀW\ghYb'GW\f]hhY'Y]b`Y]hYb"'\#\XYf'Nk]gW\YbnY]h'g]bX'X]Y
5bk c\bYf'Ui Z'XYf'<i h\tik\A\fYbX'g]W\'X]Y'Dc`]nY]'k Y]hYf\]b'i a 'X]Y
G]W\Yf\Y]h']b'XYf'FY[]cb'VYa Ø\h"'8Yf'JcfZU```\Uh'X]Y'6YXYi hi b[
XYf'Ni gUa a YbUfVY]h'nk]gW\Yb'XYf'6Yj Ò`_Yfi b['i bX'XYb
G]W\Yf\Y]hg_f\AZhYb'i bhYfghf]W\Yb"

8 Y hU]`q

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