

Ni gWX Ui Yf']b'; fUZYbf\Y]bZY`X.'?Ø\`hØfa YZU``Yb']b'gdY_hU_i `ÀfYf'GdfYb[i b[

8]Y'?Ø\`hØfa Y'XYg'5?K'; fUZYbf\Y]bZY`X'kifXYb'j YfgdÀhYh [YgdfYb[h"'9fZU\fYb'G]Y'a Y\f'ØVYf'X]Y'8YhU]`g'ibX <]bhYf[fØbXY"

8Yf'5Vf]gg'XYf'?Ø\`hØfa Y'Ua '5?K; fUZYbf\Y]bZY`X.'9]b'bYi Yf'GW\f]hh']b'XYf 9bYf[]Y[YgW\]W\hY

8]Y'GdfYb[ib['XYf'?Ø\`hØfa Y'XYg'Y\Ya U`][Yb'5?K; fUZYbf\Y]bZY`X'a Uf_]Yfh'Y]bYb'k]W\h][Yb'AY]`YbghY]b']a
FØW_VUi'jcb'?Yfb_fUZhUb`U[Yb']b'8Yi hgW\`UbX"'8]YgY'nkY]
VYY]bXfi W_YbXYb'HØfa Yž'X]Y'V]g'ni '%('AYhYf'\cW\'kUfYbžkifXYb'Ua'O8Uhia'b]W\h'Ub[Y[YVYbQa]h'_cbhfc``]YfhYf
GdfYb[ib['ni':U```[YVfUW\h''K\A\fYbX'XYf'GdfYb[dfcnYgg'bifYhkU''\\$'GY_ibXYb'XUiYfhYžgma Vc`]g]Yfh'Yf'Y]b'j]Y```\Ab[YfYg?Ud]hY``]b'XYf'; YgW\]W\hY'XYf'9bYf[]YYfnYi[ib["

?fUZhii bXiA UhYf]U`. 8]Yi8]a Ybg]cbYbiXYf ?Ø\`hØfa Y

8]Y?Ø\`hØfa Y`\UhhYb`Y]bYb`8i fW\a YggYfjcb'%\$) 'A YhYfb'Ub'XYf 6Ug]g'i bX'j Yf'Øb[hYb'g]W\'Ui Z'* ('A YhYf'Ub'XYf'Gd]hnY"'\dag[YgUa h k c[Yb'g]Y'Yhk U'' ("\$\$\$'HcbbYb'i bX'VYghUbXYb'Ui g'Y]bYf A]gW\i b['j cb'GhU\`VYhcb'i bX'?i bghghcZZYb"'8Yf'ZØf'XYb'5VVfi W\Y]b[YgYhnhY'GdfYb[ghcZZ'i bX'X]Y'gdYn]Z]gW\Y'5bnU\`'XYf GdfYb[`UXi b[Yb'V`]YVYb'YXcW\'Y]b'; Y\Y]a b]g'XYf j YfUbhk cfh`]W\Yb'GdfYb[[YgY``gW\UZh"'8]YgYg'9`Ya Ybh'XYf ; Y\Y]a \U`hi b[']gh'b]W\hi bØV`]W\']b'gc`W\Yb'[fc» Ub[Y`Y[hYb

$BUWX \setminus U^h][Y]h^vY]a^vF ØW_VUi$

9]b'VYXYi hYbXYf'5gdY_h'XYg'5Vf]ggYg']gh'X]Y'[Yd`UbhY K]YXYfj Yfk YbXi b['j cb'a Y\f'U`g'nk Y]'8f]hhY`b'XYg'A UhYf]U`g'' Dfc'Y_h`Y]hYf'A Uhh\]Ug'5fcb'Yf_`ÀfhYž'XUgg'X]YgYg'A UhYf]U`'[Ybi hnh k]fXž'i a 'VY]gd]Y`gk Y]gY'Y]bY'@U[YfZÀW\Y'ni 'gW\UZZYb'''8]Yg'ghY\h]a '9]b_`Ub['a]h'XYf'k UW\gYbXYb' BUW\\U`h][_Y]hgVYk Y[i b[ž X]Y']b'XYf'\Yi h][Yb'6Ui VfUbW\Y'ni bY\a YbX'Ub'6YXYi hi b[[Yk]bbh''8i fW\X]Y'K]YXYfj Yfk Yfhi b['k]fX'b]W\h'bi f'FYggci fWYb [YgW\cbhž'gcbXYfb'Ui W\Y]bY'i a k Y`hZfYi bX`]W\YfY 5VVfi W\dfUl]g'[YZÒfXYfh''

8]YFc``YXYf5hcaYbYf[]Y]aKUbXY`

K]fhgW λ UZh $^{\prime}$]W λ Y $^{\prime}$ 5 gd Y_hY $^{\prime}$ X Y g $^{\prime}$ 5 V V Ui g

A]h'Y]bYa '[YgUa hYb'?cghYbfU\a Yb'j cb'Yhk U'XfY]'A]``]cbYb'9i fc ZØfXYb'5VVfi W\XYf'?Ø\`hØfa Yž'ghY``h'X]YgYf'FØW_VUi 'Ui W\Y]bYb Z]bUbn]Y``Yb': cfhgW\f]hh'XUf"'8]Y'\deltaj Ygh]h]cbYbž'X]Y']b'XYb'5VVfi W\Z]Y\rightarrow Ybž'gW\UZZYb'b]W\h'bi f'5fVY]hgd`AhnYž'gcbXYfb'ZÒfXYfb'Ui W\X]Y'`c_U`Y'K]fhgW\UZh'Xi fW\X]Y'5i ZhfA[Y'Ub'fY[]cbU`Y I bhYfbY\a Yb'i bX'8]Ybgh`Y]ghYf"'5```X]Yg'j YfXYi h`]W\h'XYb'9]bZi gg gc`W\Yf'FØW_VUi dfc'Y_hY'Ui Z'X]Y'K]fhgW\UZh'j cf'Cfh"

Ni gUa a YbZUggYbX``Àggh'g]W\`gU[Ybž'XUgg`XYf`GdfYb[ib['XYf?Ø\`hØfa Y'XYg`5?K'; fUZYbf\Y]bZY`X'b]W\h'bif'Y]b'9bXYž'gcbXYfbUiW\'Y]b'BYiUbZUb['ZØf'X]Y'FY[]cb'ibX'X]Y'XYihgW\Y\9bYf[]Ydc`]h]_'XUfghY``Yb'_ObbhY"'8]Y':À\][_Y]hž'[fc»Y']bXighf]Y``YGhfi_hifYb'jYfUbhkcfhib[gVYkiggh'UVniVUiYb'ibX'[`Y]W\nY]h][FYggcifWYb'nigW\cbYbž'k]fX']b'ni_ØbZh][Yb'YbYf[]Ydc`]h]gW\Yb\VYf`Y[ib[Yb'Y]bY']aaYf'k]W\h][YfY'Fc``Y'gd]Y`Yb"

8YhU]`g

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