

DchgXUa 'ZØ\fh'X][]hU`Y K c\bg]hnUba Y`Xi b['Y]b.'GW\bY``'i bX i b_ca d`]n]Yfh°

DchgXUa 'ZØ\fh'Y`Y_hfcb]gW\Yb'6Øf[YfgYfj]WY'Y]b.

K c\bg]hnUba Y`Xi b['i bX'9\YgW\`]Y»i b['Yhnh'cb`]bY
a Ò[`]W\"'=bZcfa]YfYb'G]Y'q]W\"



DchgXUa ž'8 Yi hgWX `UbX '! 5a '&\$"' > b] '&\$&) '\Uh'X]Y 'GhUXh
DchgXUa 'Y]bYb'[fc» Yb'GWXf]hh']b'F]WX hi b['8][]hU`]g]Yfi b[
[Ya UWXh" 5V'gcZcfh'_ObbYb'6Øf[Yf]bbYb'i bX'6Øf[Yf']\fY
K c\bg]hnUba Y`Xi b[Yb'VYei Ya 'j cb'ni '< Ui gY'Ui g'Yf`YX][Yb"
8c_i a Ybh]Yfh'k]fX'X]YgYf': cfhgWXf]hh'j cb'fVV&("'DchgXUa ']gh
XUVY]'X]Y'YfghY'? ca a i bY']b'6fUbXYbVi f[ž'X]Y'X]YgYb'Cb`]bY!
GYfj]WY'Y]b[YZØ\fh'\Uh"8]Y'Y`Y_hfcb]gWXY'5ba Y`Xi b['[]`h'gck c\`ZØf'BYi Uba Y`Xi b[Yb'U`g'Ui WX'ZØf'l a a Y`Xi b[Ybž'UVYf'Y]bY
5i gbU\a Y'[]Vh'Yg.'Ni nØ[Y'Ui g'XYa '5i g`UbX'gck]Y'X]Y
5ba Y`Xi b['Y]bYf'BYVYbk c\bi b['a ØggYb'k Y]hYf\]b'dYfgÒb`]WX
YfZc`[Yb"

A]h'ØVYf'%("+\$\$ `A YbgWXYbž'X]Y `A\f`]WX `bUWX `DchgXUa `n]Y\Ybž k]fX `X]Y `X][]hU`Y `5ba Y`Xi b[`XYb `VØfc_fUh]gWXYb `5i Zk UbX Yf\YV`]WX 'j Yff]b[Yfb" '9]b `dYfgÒb`]WXYf `6Ygi WX `]a `6Øf[YfgYfj]WW]gh'b]WX h'a Y\f'bÒh][ž'i bX `Yg `YbhZÀ``h'gc[Uf'X]Y ``Agh][Y HYfa]bj YfY]bVUfi b["'8Yf'GYfj]WW 'k]fX 'j cb `XYf': fY]Yb < UbgYghUXh' < Ua Vi f['ni f'J YfZØ[i b['[YghY``h'i bX`\Uh'DchYbn]U`ž g]WX `ØVYf'UbXYfY'6i bXYg`AbXYf'\]bUi g'ni 'j YfVfY]hYb"

9\Y'X][]hU`' '9]b'bYi Yf'GYfj]WW'ni a <Y]fUhYb</pre>

8 c W 'b] W hibi fix] Y 'K c \ bg]hn Uba Y 'Xi b ['\ Uhi X] []h U 'Y b 'Ni k U W g V Y_ca a Y b . '5 i W 'X] Y '< Y] f Uhg Uba Y 'Xi b ['k i f X Y 'a c X Y f b]g] Y f h " '5 `g H Y] ` ' X Y g 'b Y i Y b 'C b `] b Y ! 5 b [Y V c hg '] b 'D c hg X Ua '_Obb Y b 'D U U f Y 'b i b] \ f Y '9 \ Y g W \ `] Y \ " i b [Y b 'i b h Y f 'X Y a 'D f c [f Ua a ' 9 \ Y 'X] []h U ` c b `] b Y Uba Y `X Y b " 8 Y f '5 V `U i Z '] g h `X Y b _ V U f 'Y] b Z U W . `D U U f Y ' [Y V Y b d Y f g O b `] W Y '8 U h Y b 'Y] b ž ``U X Y b 'Y f Z c f X Y f `] W Y 'B U W k Y] g Y '\ c W 'i b X] b Z c fa] Y f Y b 'X U g 'G h U b X Y g U a h 'Ø V Y f '] \ f Y ' < Y] f U h g U V g] W h Y b " '8 U g G h U b X Y g U a h 'Ø f O Y f O Y g W 'V Y] V h 'U ``Y f X] b [g 'Z Ø f 'X] Y Z] b U `Y 'D f Ø Z b ['i b X 'n i f '9 \ Y g W `] Y \ " i b ['Ua ' < c W n Y] h g h U [b c h K Y b X] ["

8 UgʻbYi Ufh][Yʻ5b[YVchʻgc```b]W\hʻbi fʻXUZØfʻgcf[Ybž'XUggʻKY[YjYf_ØfnhʻkYfXYbžʻgcbXYfbʻUi W\ʻX]YʻK UfhYnY]hYbʻXYi h`]W\fYXi n]YfYb"'DUUfY'_ÒbbYbʻg]W\ʻ]a 'JcfZY`X'VYfY]hgʻi a 'U``YbchkYbX][Ybʻ: cfa U`]hÀhYbʻ_Øa a Yfbž'k UgʻXYbʻ[fc»YbʻHU[qhfYgqZfY]Yfʻ[YghU`hYbʻ_Ubb"

5ba Y`XYfY`Yj UbhY'=bZcfa Uh]cbYb

8]Y 5ba Y`Xi b['VY]a '6Øf[YfgYfj]WY ']gh'Y]bY'k]WX h][Y 5b[Y`Y[Yb\Y]hž'i bX 'Yg'[]Vh'Y]b][Y'k]WX h][Y'FY[Y`b"'Gc'a i gg VY]gd]Y`gk Y]gY 'YXYf'I a ni [']bbYf\U`V'8 Yi hgWX`UbXg']bbYf\U`V j cb'%('HU[Yb'bUWX '9]bni ['VY]'XYf'A Y`XYVY\ÒfXY'fY[]ghf]Yfh k YfXYb"'Gc``hYb'j cf[Y[YVYbY': f]ghYb'b]WX h'Y]b[Y\U`hYb'k YfXYbž_\ObbhY'X]Yg'U`g'C fXbi b[gk]Xf][_Y]h'[YU\bXYh'k YfXYb"'8]Y

A Y`XYVY\ OfXY 'Yf`Ài hYfh'ni XYa ž'XUgg'X]Y'A Y`XYdZ]W\h'ZØf?]bXYf'i bhYf'%* '\$U\fYb'j cb'XYb'9`hYfb'cXYf'XYb'DYfgcbYb'YfZØ``hkYfXYb'a i ggž']b'XYfYb'K c\bib['g]Y'Y]bn]Y\Yb"

9]b'k Y]hYfYf'Di b_h']gh'X]Y'Bchk YbX][_Y]h'Y]bYf
K c\bi b[g[YVYfVYghÀh][i b[ž'X]Y'VY]'XYf'5ba Y`Xi b['j cfni `Y[Yb]gh''8]YgY'6YghÀh][i b['a i gg'k]W\h][Y'8UhYb'k]Y'X]Y'BUa Yb'i bX
5bgW\f]ZhYb'j cb'J Yfa]YhYf'i bX'9][YbhØa Yf'gck]Y'XUg
9]bni [gXUhi a 'Ybh\U`hYb'''9]bY'j YfgdÀhYhY'5ba Y`Xi b['_Ubb'XUni
ZØ\fYbž'XUgg'DfcV`Ya Y'VY]'XYf'?Zn!Ni `Uggi b[ž'XYa

 $: \emptyset \setminus fYfgWXY]bYfkYfV \cdot cXYf \cdot XYf \cdot 6YUbhfU[ib[ijcb]$

: Ø\fi b[gnYi [b]ggYb 'Ui ZhfYhYb"

8 Yf X][]hU`Y K UbXY``]b DchgXUa `]gh'U`gc`]b j c``Ya ; Ub[Yž'i bX`X]Y bYi Yb 5b[YVchY k YfXYb g]W\Yf`]W\XUni `VY]hfU[Ybž'XUgg'X]Y GhUXh'bcW\ UhhfU_h]j Yf ZØf'Ni nØ[`Yf'k]fX"'K Yf Yhnh'ØVYf'Y]bYb I a ni ['bUW\XYb_h'cXYf'XYb bÀW\ghYb [fc» Yb GW\f]hh']b 'X]Y '9\Y k U[Yb 'a ÒW\hYž'Z]bXYh']b 'DchgXUa 'X]Y 'f]W\h][Yb 'X][]hU`Yb K Yf_nYi [Y'Ub 'XYf' < UbX"

8 YhU]`g	
Cfh	DchgXUaž8YihgWX`UbX
EiY``Yb	• k k k "fVV&("XY
	• j j "d c hgXUa "XY
	• k c\bg]hnUba Y`Xi b["[cj "XY

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