

9h\YfYi a 'GhU_]b['6YhU'j cb'A YhUA Ug_
ghUfhYh'a]h'@]Xc'i bX'F cW_Yh'Dcc`

7cbgYbGmg' 'XYf'9h\YfYi a !ϕZfUghfi _hi fUbV]YhYf'\]bhYf
A YhUa Ug_ ' \Uh'Ub[Y_ØbX][hž'XUgg'X]Y'k Y]hj YfvfY]hYhY
?fmdhc!K U`Yh'Yg'6Ybi hnYfb'Yhnh'Yfa Ø[`]Włhž']\fY'9H<
X]fY_h'Ui g'XYf'5dd'ni 'ghU_Yb""8]Y'ÖZZYbh']WłY'6YhU'XYg
BYhmk Yf_g'Yfa Ø[`]Włh'Yg'6Ybi hnYfbž'Ybhk YXYf'@]Xc'cXYf
F cW_Yh'Dcc`ni a '5VghYW_Yb'Ui gni k Å\`Ybž'k cXi fWł'g]Y
9fhfÅ[Y'Yfn]Y'Yb'i bX'ja ; Y[Ybni [``]ei]XY'UV[YghYW_hY'9H<
Yf\U'hYb'_ØbbYb""9H<'Ui Z'A YhUA Ug_'[YgYhnh; Ya Å» 'XYf
5b_ØbX][i b['j cb'H\Y'6'cW_'j cb'7cbgYbGmg'_ØbbYb
6Ybi hnYf'X]Y'9H<!A Yb[Yž'X]Y'g]Y'ZØf'XUg'GhU_]b['ni k Y]gYb
a ØWłhYbž'a]h'Y]bYf'g][b]YfhYb'HfUbgU_h]cb'Ui Z'A YhUA Ug_
VYghÅh][Yb'i bX']\fY'ZØgg][Yb'GhU_]b[!Hc_Yb'X]fY_h'j ca
GhU_]b[!5bV]YhYf'Yf\U'hYb""@]Xc'i bX'F cW_Yhdcc`k i fXYb
Ui Z[fi bX']\fYf'6Y']YVh\Y]hi bX' / Ua d^Y``]d/

7cbgYbGmg' 'XYf'9h\YfYi a !ϕZfUghfi _hi fUbV]YhYf'\]bhYf
A YhUa Ug_ ' \Uh'Ub[Y_ØbX][hž'XUgg'X]Y'k Y]hj YfvfY]hYhY'fmdhc!
K U`Yh'Yg'6Ybi hnYfb'Yhnh'Yfa Ø[`]Włhž']\fY'9H<'X]fY_h'Ui g'XYf
5dd'ni 'ghU_Yb""

8]Y'ÖZZYbh']WłY'6YhU'XYg'BYhmk Yf_g'Yfa Ø[`]Włh'Yg'6Ybi hnYfbž
Ybhk YXYf'@]Xc'cXYf'F cW_Yh'Dcc`ni a '5VghYW_Yb'Ui gni k Å\`Ybž
k cXi fWł'g]Y'9fhfÅ[Y'Yfn]Y'Yb'i bX'ja ; Y[Ybni [``]ei]XY
UV[YghYW_hY'9H<'Yf\U'hYb'_ØbbYb""

9H<'Ui Z'A YhUA Ug_'[YgYhnh

; Ya Å» 'XYf'5b_ØbX][i b['j cb'H\Y'6'cW_'j cb'7cbgYbGmg'_ØbbYb
6Ybi hnYf'X]Y'9H<!A Yb[Yž'X]Y'g]Y'ZØf'XUg'GhU_]b['ni k Y]gYb

a ÖW hYbž'a]h'Y]bYf'g][b]YfhYb'HfUbgU_h]cb'Ui Z'A YhUA Ug_
VYghÀh][Yb'i bX']\fY'ZØgg][Yb'GhU_]b[!Hc_Yb'X]fY_hj ca 'GhU_]b[!
5bV]YhYf'Yf\U'hYb"

@]Xc'i bX'FcW_Yhdcc`k i fXYb'Ui Z[fi bX']\fYf'6Y'YVh\Y]hi bX'XYg
6Ybi hnYf!: YYXVUW_g'ZØf'XYb'8]Ybgh'Ui g[Yk À\`h"

9g']gh'k]W h]['ni 'VYUW hYbž'XUgg'A YhUA Ug_'GhU_]b['_Y]bY
GhU_]b[!8]YbghY'UbV]YhYh ž'gU[hY'5VUX'A]Ubž'GYb]cf'DfcXi W h
A UbU[Yf'j cb'A YhUA Ug_ž[Y[YbØVYf'H\Y6`cW`" K]f'j YfV]bXYb
X]Y'6Ybi hnYf'Y]bZUW'a]h'@]Xc'i bX'FcW_Yh'Dcc`ž'i a '\fY'9H<'ni
ghU_Yb'i bX'ZØgg][Y'GhU_]b[!Hc_Yb'X]fY_hj ca 'GhU_]b[!5bV]YhYf
ni 'Yf\U'hYb"

GhU_]b['VYn]Y\h'g]W X'UfUi Zž'k Ybb'6Ybi hnYf'Y]bYg'DfccZcZ
GhU_Y]!?fmdhcbYhnc Yf_g'Y]b][Y']\fYf'?fmdhcg'ZØf'Y]bY'VYgh]a a hY
NY]h'gdYffYbž'i a 'X]Y'6`cW_WU]b'ni 'g]W X'Yfb"GhU_Yf'Yf\U'hYb'ja
; Y[Ybni ['F YbX]hYbž'X]Y'Yg']\bYb'Yfa Ö['W X'Ybž'Y]bZUW'Xi fW
XUg<U'hYb'XYf'ni 'dfcZ]h]YfYb'Wc]b"

8 Ug'GhU_]b['Ui Z'9h\YfYi a 'YfZcfXYfh'YXcW'Y]b'A]b]a i a 'j cb'" &
9H<"6Y]'U_hi Y`Yb'DfY]gYb']gh'XUg'Y]bY'9]bhf]hngVUff]YfY'ja 'K Yfh
j cb'((", \$\$`'ZØf'YXYb'6Ybi hnYfž'XYf'b]W h'gc'j]Y`]b'9H<
]bj Ygh]YfYb'_Ubb"

⇒a ; Y[YbgUhn'XUni 'gUa a Y'b'GhU_]b[!8]YbghY'k]Y'@]Xc'i bX
FcW_Yh'Dcc`X]Y'9H<'_Y]bYfYf'6Ybi hnYf']b'Y]bYa 'Z b_h]cbU'Yb
J U']XUhc fž'XYf'9H<'ja 'B Ua Yb'U`Yf'gY]bYf'A]hk]f_YbXYb
j YfX]YbYb'_Ubb"8 UfØVYf'\]bUi g'_ÖbbYb'6Ybi hnYf'XYg'Dcc`g
Xi fW 'X]Y'6YfY]hghY`i b['j cb'9H<![YVi bXYbYb`]ei]XYb'GhU_]b[!
Hc_Yb'k]Y'gh9H<'i bX'f9H<'X]Y'@]ei]X]hÀh']\fYf'J Yfa Ö[Ybgk YfhY
YZZY_h]j 'Yf\U'hYb'i bX'['Y]W nY]h]['k Y]hYf\]b'9fhfÀ[Y'Yfn]Y'Yb"

A YhUA Ug_!6Ybi hnYf'_ÖbbYb']\fY'f9H<'i bX'gh9H<']bbYf\U'V'XYf
5dd[Y[Yb'Y]bY'; YVØ\f'Ui W X'k]YXYf']b'9H<'hUi gW X'Yb"

8]Y'J YfgW a Y`ni b[

9h\YfYi a ij Yfk YbXYhY`V]g'ni a `J YfgW\ a Y`nYb`Y`YhnhYg`>U\ fž
k cXi fW`XYf`?cbgYbga YW Ub]ga i g'XYg'BYhnk Yf_g`Ui ZDfccZ'cZ
GhU_Y`[YÅbXYfh'k i fXY`"8]Yg'k i fXY`k Y]h\]b`U`g`Y]bYg`XYf
hYW\ b]gW`Ub gdfi W\ gj c`ghYb`l d[fUXYg`]b`XYf`?fmdhc[YgW\]W\ hY
Ub[YgY\Yb`"

8 Ug`l d[fUXY`k i fXY`j cb`Y]b][Yb`_f]h]g]Yfhž`X]Y`[`Ui VYbž`XUgg`XYf
DfccZ'cZ`GhU_Y`9h\YfYi a `Ui Z`Y]bYb`K Y[`ni f`NYbhfU`]g]Yfi b[
Vf]b[h` , VYf`* \$`i `XYf`[YghU_YhYb`9H< `_cbhfc``]YfYb`Y]bY
< UbXj c``nYbhfU`]g]YfhYf`5bV]YhYfž`XUfi bhYf`@]Xcž`6]bUbWž
7c]bVUgY`i bX`?fU_Yb`"

7c]bVUgY!79C`6f]Ub`5fa ghfcb[`VY\Ui dhYh`]a `5i [i ghž`XUgg`Yf
[`Ui Vhž`XUgg`7c]bVUgY`XYb`GhU_]b[!GYfj]W`j cb`9h\YfYi a
gW`]Y» Yb`k ØfXYž`k Ybb`Yf`j cb`XYb`FY[i `]Yfi b[gVY\ØfXYb
Ui Z[YZcfXYfh'k ØfXYž`X]Y`?cbhfc``Y`ØVYf`XUg`BYhnk Yf_
Ui gni ØVYb`"

...

8YhU]`g

6Ygi W\ Yb`G]Y`i bg`Ui Z. `_fmdhc!bYk g"Uh