

## JcmU[Yf'a Y`XYh'=bgc`j Ybn'Ubž'bUWXXYa X]Y'5i gnU\`i b[Yb'Y]b[YZfcfYb'k i fXYb

JcmU[Yf`]ghYhYa Y\f'U`g'%\$\$"\$\$\$; `Ài V][Yf'Ui Zz'k cVY]
5`Ua YXU`FYgYUfW\ XYf'[fÒ» hY? fYX]h[YVYf'k Uf'79C
GhYd\Yb'9\f`]W\ Yf`Ài hYfhYžXUgg'X]Y'?i bXYb']\f'JYfa Ò[Yb
bUW\ XYf`FYcf[Ub]gUh]cb'Yf\U`hYb'k YfXYb'K Yb][Yf'U`g'Y]bY
K cW\Y'bUW\ XYf'5i ggYhni b[XYg'<UbXY`g'i bX'XYf
5V\YVi b[Yb']b'gY]bYa 'BYhnk Yf\_a Y`XYhY'JcmU[Yf'8][]hU`
Ua 'A]hhk cW\ \dipgc'j Ybn'bUW\ 7\UdhYf'%'Ub"8 Ug'DYh]h]cbž
Y]b[YfY]W\h']a 'gØX`]W\Yb'6Yn]f\_'j cb'BYk 'Mcf\_ž'nY][hžXUgg
JcmU[Yf'a Y\f'U`g'%\$\$"\$\$\$; 'Ài V][Yf'\Uh"8 Ug']b'Hcfcbhc
UbgAgg][Y'I bhYfbY\a Yb'bch]YfhY'nk ]gW\Yb'%'A]``]UfXY'i bX
%\$'A]``]UfXYb'I G!8c``Uf'Ub'[YgW\AhnhYb'?fmdhc!5ggYhg'i bX
X]Y'[`Y]W\Y'GdUbbY'ZØf'gY]bY'JYfV]bX`]W\\_Y]hYb"'8 Ug'Ei Ubh!
?fmdhc!<UbXY`gi bhYfbY\a Yb'5`Ua YXU`FYgYUfW\'k]fX'U`g
gY]b'/ Ua d\Y``]d/

- JcmU[Yf'`]ghYhY'a Y\f'U`g'%\$\$"\$\$\$'; `Ài V][Yf'Ui Zž'k cVY]
   5`Ua YXU'FYqYUfW\'XYf'[fÒ»hY'?fYX]h[YVYf'k Uf
- 79C 'GhYd\Yb'9\f`]W\'Yf`Ài hYfhYž'XUgg'X]Y'?i bXYb']\f
   JYfa Ò[Yb'bUW\'XYf'FYcf[Ub]qUh]cb'Yf\U`hYb'k YfXYb

K Yb][Yf'U`g'Y]bY'K cW\Y'bUW\'XYf'5i ggYhni b['XYg'<UbXY`g'i bX XYf'5V\YVi b[Yb']b'gY]bYa 'BYhnk Yf\_'a Y`XYhY'JcmU[Yf'8][]hU` Ua 'A]hhk cW\'=bgc`j Ybn'bUW\'7\UdhYf'%%'Ub"

8 UgʻDYh]h]cbžY]b[YfY]W\hi]a ˈgØX`]W\Ybʻ6Yn]f\_'j cbʻBYkʻMcf\_ž
nY][hž'XUggʻJcmU[Yfʻa Y\fʻU`gʻ%\$\$"\$\$\$; `Ài V][Yfʻ\Uh"'8 Ugʻ]b
HcfcbhcʻUbgÀgg][YʻI bhYfbY\a Ybʻbch]YfhYʻnk ]gW\Ybʻ%ʻA ]``]UfXY
i bXʻ%\$ʻA ]``]UfXYbʻI G!8c``UfʻUbʻ[YgW\AhnhYbʻ?fmdhc!5ggYhgʻi bX
X]Yʻ[`Y]W\YʻGdUbbYʻZØfʻgY]bYʻJYfV]bX`]W\\_Y]hYb"

8 UgʻE i Ubhl?fmdhc! < UbXY`gi bhYfbY\a Ybʻ5`Ua YXUʻF YgYUfW\k ]fX UʻgʻgY]bʻ[fÒ»hYfʻ; `Ài V][YfʻUi Z[YZØ\fhi bX'\À`hi bVYg]W\YfhY ?fYX]hYʻ]a 'K Yfh'j cb'+) 'A]``]cbYbʻI G!8c``Uf"

8]Y'5b\_ØbX][ib['jcb'JcmU[Yf'YfZc`[h'HU[Yž'bUWXXYa 'XYf'?fmdhc! <YX[YZcbXg'H\fYY'5ffckg'7Ud]hU`fl57Ł' 'XYf'JcmU[Yf'A]``]cbYbgWXi `XYh' 'Ua 'GUa ghU['±bgc`j Ybn'bUWX'7\UdhYf'%%'Ub[Ya Y`XYh\Uh"

CVk c\``]W\`ZYgh`Ub`X]YgY`Ni \_i bZh`[``Ui VYžYfZcfXYfb`X]Y
Ub\U`hYbXY`Jc`Uh]`]hÀh`i bX`5bghYW\_i b[`Ui Z'XYb`?fmdhca Àf\_hYb`]b
XYb``YhnhYb`A cbUhYb`i bX`XYf`5i gZU```j cb`H\fYY`5ffck g`7Ud]hU`
VY]`Y]bYa `8Uf`Y\Yb`XYf`HcW\hYf[YgY``gW\UZh`XYg`I bhYfbY\a Ybgž
JcmU[Yf`8][]hU`ž`@@7ž`XUgg`k]f`VYk i ggh`\UbXY`b`i bX`¾hnh
YbhgW\`cggYb`\UbXY`b ž`gU[hY`JcfghUbXgj cfg]hnYbXYf`GhYd\Yb
9\f`]W\`]b`Y]bYa '5i ggU[Y"

8 Yf'DfcnYgg'bUW.'? Ud]hY`'%%'V]YhYh'Y]bYb'YZZ]n]YbhYb'i bX [YfYWXhYb'A YWXUb]ga i g'ni f'A Ul]a]Yfi b['XYf'; YbYgi b[ ž'ZØ[hYYf'\]bni "

8]Y '\dgc'j Ybn'bUW\ '? Ud]hY`'\%'Yfa Ò[`]W\h'Yg'Y]bYa
I bhYfbY\a Ybž'gY]bY'J Yfa Ò[Ybgk YfhY'i bX'GW\i`XYb'ni
fYcf[Ub]g]YfYbž'k À\fYbX'Yg']a '; YgW\ÀZh'V`Y]Vh"'I bhYfbY\a Ybž
X]Y'g]W\'ZØf'X]YgYg'J YfZU\fYb'YbhgW\Y]XYbž'a ØggYb'X]Y
\ddot hYfYggYb'XYf'; `Ài V][Yf']a '5i [Y'VY\U`hYb"

±b`Y]bYa 'hk ]hhYfbGU[hY'9\f`]W\žXUgg'JcmU[Yf!?ibXYbž'X]Y?fmdhc'UiZ']\fYb'?cbhYb'\UVYbž'Y]bY'A]gW\ib['Uig']\fYb'?fmdhc!
5ggYhgž'9f`ÒgYb'Uig'XYf''57!K]YXYf\YfghY``ib[ž'GhUaaU\_h]Yb
XYf'bYi'cf[Ub]g]YfhYb':]faU'ibX'JcmU[Yf!Hc\_Yb'Yf\U`hYbkYfXYb"

?ibXYb'a ]h?fmdhc'UiZ']\fYa '?cbhc#]\fYb'?cbhYb Yf\U`hYb']a '; Y[Ybni ['Y]bY'?ca V]bUh]cb'Ui g'?fmdhc'UiZ ]\fYa '?cbhc#]\fYb'?cbhYbž'9f`ÒgYb'Ui g'XYf'' 57! K ]YXYf\YfghY``i b[ž'GhUa a U\_h]Yb'XYg'bYi 'cf[Ub]g]YfhYb I bhYfbY\a Ybg'i bX'JcmU[Yf!Hc\_Yb"

'GhYd\Yb'9\f`]W\'fH 9\f`g%) Ł'\*"'>| `]'&\$&&

## 9b[U[Ya Ybh]b H\fYY 5ffck g 7 Ud]hU`

JcmU[Yf'nY][hY'5bnY]WXYb'jcb'Bchž'U`g'Yg'jYfgiWXhYž'YhkU'\*) +
A]``]cbYb'IG!8c``Uf'nifØW\_niZcfXYfbž'X]Y'Ub[YV`]WX'Ub''57
[Y`]Y\Yb'kcfXYb'kUfYb'''GY]b'9b[U[YaYbh'[Y[YbØVYf'XYa</YX[YZcbXg'VYghUbX'Uig'%)"&)\$'6H7'fl\$+'A]``]cbYb'IG!8c``UfŁibX'')\$'A]``]cbYb'IG!8c``Uf']b'VUf'''JcmU[Yf'ZcfXYfhY'X]Y
FØW\_nU\`ib['V]g'nia'&+'''\\*b]ž'UbXYfbZU``g'kØfXY'X]Yg'Y]bYb
NU\`ib['gUigZU```XUfghY``Yb'''

8 Yf'5 bhfu['j cb'' 57ž'?cb\_i fg'Ubni a Y`XYbž'XYi hYh'XUfUi Z'\]bž XUgg'X]Y'F ØW\_nU\`i b['b]W\h'YfZc`[h']gh"8 Yf'J YfV`Y]V'XYf A ]hVY[fØbXYf'N\i 'Gi 'i bX'?m`Y'8 Uj ]Yg']gh'b]W\h'VY\_Ubbh"

a 'j Yf[ Ub[ YbYb'A cbUh'g]W\YfhY'g]W\'J cmU[ Yf') \$\$ 'A ]``]cbYb'l G!
8c``Uf'Ub'8Uf`Y\Yb'j cb'5`Ua YXU'F YgYUfW\ž'i a
?i bXYbj Yfa Ò[ Yb'ni 'gW\ØhnYb"'9]b'l bhYfbY\a YbggdfYW\Yf'gU[ hY6`cW\_k cf\_g'XUa U`gž'XUgg'GdY\_i `Uh]cbYb'ØVYf'X]Y'=bgc`j Ybn'XYg I bhYfbY\a Ybg' Y]bXYi h][ 'ZU`gW\ 'gY]Yb"'

5a '%"' > `]'gYhnhY'JcmU[Yf'XYb' < UbXY`ž'9]bnU\`i b[Ybž 5i gnU\`i b[Yb'i bX'HfYi YdfÀa]Yb'Ui g'i bX'gi W\hY'bUW\ ghfUhY[]gW\Yb'5`hYfbUh]j Yb "'8Yf' < UbXY`'V`Y]Vh'XYfnY]h Ui g[YgYhnh"

 $\label{eq:converse_$ 

< c`Yb'G]Y'g]W\'^YXYb'5VYbX'X]Y'VYghYb'? fmd hc! BYi][\_Y]hYb'ibX'9f\_Ybbhb]ggY'XYg'HU[Yg']b'=\fYb DcghY]b[Ub["'"

 $8 \ Yf'6Y] hfU[\ 'JcmU[\ Yf':\ ]`Yg'Zcf'6Ub_fi \ dhWm'8Umg'5ZhYf':\ fYYn]b[ K \ ]h\ XfUk \ U`g']gh'_Y]bY'Z]bUbn]Y``Y'6YfUhi \ b[\ ''$ 

8YhU]`g

6 Y gi W Y b 'G ] Y 'i b g 'U i Z \_ fmd hc ! b Y k g "Uh