

8]Y'Dc`]nY]'ZUggh'5i hc!8]YV'bUW K]XYfghUbX'Ui Z'JYbi gVYf[°

9]b'' %! À\f][Yf'k i fXY'bUW\'Y]bYa 'D_k !8]YVghU\`'Ui Z'XYa JYbi gVYf['j cf`Ài Z]['ZYgh[Ybca a Yb"'9f'`Y]ghYhY'K]XYfghUbX [Y[Yb'X]Y'Dc`]nY]"



JYbi gVYf[ž'6cbbž'8 Yi hgWX `UbX '! '9]b'' %! 'À\f][Yf'A Ubb'k i fXY
Ua 'A cbhU[UVYbX 'Ui Z'XYa 'J Ybi gVYf['j cf`Ài Z]['ZYgh[Ybca a Ybž
bUWX XYa 'Yf'Ui g'Y]bYa 'D_k '[Yghc\ `Yb'\ UhhY"'8]Y'Dc`]nY]'k i fXY
i fn'bUWX '&\$.%\$'I \f'ni 'Y]bYa 'DUf\ Ui g'Ui Z'XYa '; Y`ÀbXY'XYf
I b]_`]b]_'6cbb'[Yfi ZYbž'k c'Y]b'5i hc'Ui Z[YVfcWXYb'i bX'XYf

\DYbfUi a 'Xi fWXk Ø\`h'k cfXYb'k Uf"'6Y]'gY]bYf': YghbU\a Y
'Y]ghYhY'XYf'A Ubb'K]XYfghUbX'[Y[Yb'X]Y'6YUa hYb"

 $\label{thm:chain} Hfchn'XYf': YghbU\a Y'ki fXY'XYf'' \%! \AA\f][Y'Ua''8]YbghU['k]YXYfUi Z'ZfY]Yb': i * '[YgYhnhž'XU'_Y]bY' < UZh[fØbXY'j cf`U[Yb'''8 Ug?f]a]bU`_ca a]ggUf]Uh'%) 'XYf'6cbbYf'Dc`]nY]'\Uh'bi b'X]Y'kY]hYfYb 9fa]hh`i b[Yb']b'X]YgYa': U``'ØVYfbca a Yb''$

8 Y hU]`g	
J c f ZU``	8]YVghU\`
I fgUWX Y	K]XYfghUbX'[Y[Yb'Jc``ghfYW_i b[gVYUa hY
Cfh	JYbigVYf[ž'6cbbž'8YihgWX`UbX
: YghbU\a Yb	%

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