

Nk Y] A] \cap gb F \textit{\Omega}W__Y\ fY f'b UW\ Gmf] Yb. F \]g]_c c XY f' < c \textit{ZZbi b}[3

9bhXYW_Yb'G]Y'X]Y'U_hi Y``Yb'9bhk]W_`i b[Yb'ØVYf $FØW__Y\f'Ui\ g'Gmf]Yb'i\ bX'XYfYb'@YVYbgg]hi Uh]cb']b X]YgYa'i a ZUggYbXYb', VYfV`]W_"$



: fUb_Zi fh'Ua 'A U]bž'8Yi hgWX `UbX'!'8]Y'FØW__Y\f'j cb
; YZØW\hYhYb'bUW\'Gmf]Yb']gh'bUW\'k]Y'j cf'Y]b'\Y]» Yg'9]gYb"'@Ui h
XYa 'Gd]Y[Y`'\UVYb'VYfY]hg'nk Y]'A]``]cbYb'A YbgW\Yb'XUg'@UbX
k]YXYf'VYhfYhYbž'hfchn'Ub\U`hYbXYf'; YZU\fYb'i bX'gW\k]Yf][Yf
@YVYbgVYX]b[i b[Yb"'8]YgY'FØW__Y\fYf'k UfYb'j cf'U``Ya ']b
BUW\VUf`AbXYfb'i bX'9i fcdU'i bhYf[YVfUW\hžj]Y`Y'j cb']\bYb
\UVYb']\fY'<Y]a Uh'j cf'XYa '6Øf[Yf_f]Y['j Yf`UggYb'a ØggYb"

K UgʻVYk Y[h'X]YʻA YbgWXYbžʻ]bʻY]bʻgcʻi bg]WXYfYgʻl a ZYʻX
ni fØW_ni _Y\fYb3ʻ9]bʻ; fi bXʻ_ÒbbhYbʻX]Yʻ]bb][YbʻJYfV]bXi b[Yb
ni '<Y]a Uhʻi bXʻ: Ua]`]YʻgY]bžʻX]YʻhfchnʻUʻ`YfʻK]Xf][_Y]hYbʻVYghY\Yb
V`Y]VYb"'8YbbcWXʻg]bXʻX]Yʻ<YfUi gZcfXYfi b[YbʻYbcfa "'-\dagger)Gmf]Yb
`YVYbʻ[YgWXÀhnhY'-\$`DfcnYbh`XYfʻ6Yj Ò`_Yfi b['i bhYf\U`V`XYf

5fa i hg[fYbnYžk Ug'X]Y'FØW__Y\f'VYgcbXYfg'_ca d`]n]Yfh'a UW\h" 8]Y'Yb][Ybž'X]Y'ni fØW__Y\fYbž'ghY\Yb'j cf'a Ugg]j Yb'DfcV`Ya Yb k]Y'gW\`YW\hYf'=bZfUghfi _hi fž'ZY\`YbXYb'5fVY]hgd`ÀhnYb'i bX'Y]bYf]bg[YgUa h']bghUV]`Yb'G]W\Yf\Y]hg`U[Y"

$8]Y'dc']h]gWXY'8]g_igg]cb$

 $\label{thm:conditional} I b X `X] Y `NU\ `Yb `gdfY W Yb `ZØf`g] W . `J cb `&$\%(`V]g`9b X Y`&$&' k i f X Yb `]b `8 Yi hg W `Ub X `fi b X `, , $"$$$ `GW i hn Ub hf À [Y `j cb `GmfY f b [YghY ``h" 8 Uj cb `Yf\]Y `hY b `Yhk U `X]Y `< À `ZhY `: `ØW h`]b [gg W i hn ž ' +$"$$$ `Yf\]Y `hY b `gi Vg]X] À f Yb `GW i hn "`B UW `ZØb Z`$J\ f Yb `_Obb Yb j]Y `Y '; Y Z Ø W hY hY `Y]b Y `B]Y X Y f` Uggi b [gYf`Ui Vb]g` V Y Ub hf U [Yb ž`k Ug ni f`GhUV]`]h À h` V Y]h f À [h`i b X `[`Y] W nY]h][`F Ø W_ZØ\ fi b [gZc f X Y fi b [Yb Ui gg W `]Y >> h"$

I bhYfghØhni b[ZØf FØW__Y\fYbXY

 $8] Y `91 'j YfZc`[hY]bY `GhfUhY[]Y \check{z}X]Y `Ui Z'ZfY]k]``][Y `F ØW__Y \setminus f'i bX X]Y `F Y]bhY[fUh]cb'j cb': `ØW\h`]b[Yb'UVn]Y `hž'VUg]Y fYbX'Ui Z Df]bn]d]Yb'k]Y `F YdUhf]Uh]cbž'F Y \ UV]`]hUh]cb'i bX `F Y Wcbghfi Wh]cb'' 8 Yi hgW\`UbX'\Uh'Dfc[fUa a Y'ni f'I bhYfghØhni b['XYf'ZfY]k]``][Yb F ØW__Y \ f'UV[Y`Y \ bhYf'5gm`gi W\YbXYfž'X]Y 'gY]h'XYb'%- +$Yf'\\\J\fYb VYghY \ Yb'''8]Y' < \Ai Z]['[YghY``hYb': fU[Yb'ni '5VcbbYa Ybhg'XYg GD=9; 9@'Yf`\Ai hYfbž'k]Y'XYf'Ni [Ub['ni 'k]W\h][Yb'\\\Dfc[fUa a Y'[Y\c`ZYb'k]fX'' \] Dfc[fUa a Y'[Y\c`ZYb'k]fX''$

#bg[YgUa h'nY][h'g]WX z'XUgg'X]Y'FØW__Y\f'bUWX'Gmf]Yb'Y]b
_ca d`YI Yg'H\Ya U']ghz'XUg'gck c\`']bX]j]Xi Y``Y'U`g'Ui WX'dc`]h]gWXY
8]a Ybg]cbYb'\Uh"'8]Y'G]hi Uh]cb'V`Y]Vh'Ub[YgdUbbh'i bX'Yg'V`Y]Vh
UVni k UfhYbz'k]Y'g]WX'X]Y'FU\a YbVYX]b[i b[Yb'k Y]hYf'Ybhk]W_Y`b
k YfXYb"'9]b'k Y]hYfYg'5Vk UfhYb'_ObbhY'VYXYi hYbz'XUgg'j]Y`Y
GmfYfz'X]Y'[YfbY'ni fØW_'a OWXhYbz'k Y]hYf\]b'Ui Z'VYggYfY
B UWXf]WXhYb'\cZZYb'a ØggYb"

8 Y hU]`g	
Cfh	: fUb_Zi fh'Ua 'A U]bž'8Yi hgWX`UbX
EiY``Yb	k k k "gd]Y[Y`"XY
	• fUb_]b[gi dfYa Y"Wca
	Z`i WX hZcfgWX i b["bYh

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