

8F? '6fUi bgWk Y][.'=bgc`j Ybn Ub[Ya Y`XYh' '6YghY\h'<cZZbi b['Ui Z FYhhi b[3

8 Ug'8 Yi hgWX Y'F chY'? fYi n']b'6fUi bgWX k Y]['a Y`XYh \$\pigc`j Ybn'Ub"'; f\@bXY'g]bX'k]fhgWX UZh`]WX Y'6Y`Ughi b[Yb'i bX [Ygh]Y[YbY'9bYf[]Y_cghYb"



< Ufnž'8Yi hgW `UbX'!' & `XYf'FY[]cb'6fUi bgWk kY][#GU`n[]hhYf
gcf[h'X]Y'BUWkf]Wkhj cb'XYf' & gc'j Ybn'XYg'8Yi hgWkYb'FchYb
?fYi nYg'fBF?Ł'ZØf'5i ZfY[i b["'5a 'A]hhk cWk'k i fXY'VY_Ubbhž'XUgg
XYf'?fY]gj YfVUbX'XYg'8F?' & bgc'j Ybn'Ub[Ya Y`XYh'\Uh''5``YfX]b[g
k]fX'XYf'; YgWkAZhgVYhf]YV'j cfYfgh'i bhYf'XYf'5i Zg]Wkh'Y]bYg
GUWkj Yfk U`hYfg'Zcfh[YZØ\fh"'8Ug'5a hg[Yf]Wkh'\Uh'Y]bY' & bgc'j Ybn
]b'9][Ybj Yfk U`hi b['Ub[YcfXbYhž'k Ug'VYXYi hYhž'XUgg'XUg'8F?'Y]b
GUb]Yfi b[g_cbnYdh'YfUfVY]hYh'\Uhž'i bX'J cfghUbX'B]Wc'GYYZY'Xh
?UnUn]'[`Ui Vh'Ub'[i hY'7\UbW'b'ZØf'Y]bY'bUWk\U`h][Y'GUb]Yfi b["
Hfchn'X]YgYf'G]hi Uh]cb'k YfXYb'X]Y'; Y\A`hYf'j cb'Yhk U'() \$
5b[YghY``hYb'Xi fWk' & bgc'j Ybn[Y`X'XYf'5[Ybhi f'ZØf'5fVY]h</pre>

 $8]Y ; f\emptysetbXY Z fX]YgYb GWXf]hh ``]Y[Yb Ui Z'XYf' < UbX'' 8]Y \\ k]fhgWX UZh`]WXYb 6Y`Ughi b[YbžX]Y Xi fWX X]Y 7cj]X!%-!DUbXYa]Y YbhghUbXYb g]bXž gck]Y X]Y ghUf_ [Ygh]Y[YbYb 9bYf[]Y_cghYb]bZc`[Y XYg fi gg]gWXYb 5b[f]ZZg Ui Z'X]Y I _fU]bY gYhnYb XUg 8F? ghUf_ ini "'9]b ini gAhn`]WX [Yd`UbhYf JYf_Ui Z'Y]bYg Z f Ø\YfYb DZY[Y\Y]a gž XYf ini f Z]bUbn]Y ``Yb 9bh`Ughi b['VY]hfU[Yb gc``hYž j YfnÒ[YfhY g]WX 'U``YfX]b[g"$

<]bhYf[fØbXY XYf ? fUb_Yb\Ui g_f]gY</pre>

K UgʻVYXYi hYhʻXUgʻbi bʻZØfʻXUgʻ8 F?ʻi bXʻgY]bYʻ9]bf]Wk hi b[Yb3
HfchnʻXYfʻ≠bgcʻj Ybnʻ\UhʻXYfʻ?fY]gj YfVUbXʻk Y]hYf\]bʻXUgʻN]YʻžʻUʻʻY
8]YbghʻY]ghi b[YbʻUi ZfYWk hni Yf\UʻhYb"8 Uni ʻ[Y\ÒfYbʻ6YfUhi b[g!
i bXʻ≯[YbXnYbhfYbžʻDZY[YY]bf]Wk hi b[Ybž′?]bXYfhU[YgghÀhhYbʻi bX
FYhhi b[gk UWkYb"'8]YʻBchk YbX][_Y]hʻY]bYfʻZ]bUbn]YʻʻYb
I bhYfghØhni b[ʻi bXʻghfi _hi fYʻʻYbʻFYZcfa Ybʻni fʻGhUV]ʻ]g]Yfi b[ʻXYf
6fUbWkYʻ]ghʻc ZZYbg]Wk hʻ]Wk "ʻ5bXYfbZUʻ`gʻ_ÒbbhYʻg]Wk ʻXYf
HYi ZYʻg_fY]gʻk Y]hYfʻj YfgWkÀfZYbžʻ]bʻXYaʻ]a a Yfʻa Y\fʻ?ʻ]b]_Yb
XYbʻ[ʻY]WkYbʻK Y[ʻk]YʻXUgʻ8 F?ʻ[Y\Yb"

8]Y'9bhk]W_`i b[Yb'fi bX'i a 'X]Y'+bgc`j Ybn'XYg'8F?'i bX'X]Y
Ub[YgdUbbhY'G]hi Uh]cb']b'XYf'?fUb_Yb\Ui g`UbXgW\UZh'a UW\Yb
XYi h`]W\žXUgg'\]Yf'Y]b'I a XYb_Yb'[YZfU[h']gh''8]Y
; Ygi bX\Y]hgdc`]h]_'a i gg'Xf]b[YbX'Ub[YdUW_h'k YfXYbž'i a 'Y]bYb
k Y]hYfYb'J Yf`i gh'j cb'9]bf]W\hi b[Yb'ni 'j Yf\]bXYfb'i bX'X]Y
; Ygi bX\Y]hgj Yfgcf[i b['g]W\Yfni ghY``Yb'''8Yf'?fY]g`Ui Z'j cb
Z]bUbn]Y``Yb'9b[dÀggYb'i bX'UXa]b]ghfUh]j Yf'6Y`Ughi b[']gh'b]W\h
a Y\f'hfU[VUf"

 $: \emptyset f'X]Y'A YbgWXYb']b'6fUibgWXkY]['ibX'Ia[YVib['V`Y]Vh'ni \cZZYbž'XUgg'X]Y'UbghY\YbXYb'GUb]Yfib[gaU*bU\aYb'XYg'8F?ZfiWXhYb'ibX'Y]bY'hfU[ZÀ\][Y'@Ògib['[YZibXYb'k]fX"'8Ug9b[U[YaYbh'XYf'A]hUfVY]hYf'ibX'X]Y'iaZUb[fY]WXYb'5b[YVchYXYg'8F?'X<math>\emptyset$ fZYb'b]WXh']bg'<]bhYfhfYZZYb'[YfUhYb"

B8F VYf]W\hYhž XUgg

 $N8: \ \ VYf]WAhYh' ØVYf'$

HU[YggWXUi 'VY`Yi WXhYh'X]Y'

8YhU]`g	
Cfh	< Ufnž8Yi hgWX`UbX
EiY``Yb	• k k k "bXf"XY
	• k k k "nXZ\Yi hY"XY
	• k k k "hU[YggWXUi"XY

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