

G_cXU!: U\fYf]b a]h & ž&% Dfca]``Y fUa a h @]b]YbVi g]b 5b[Yfa ØbXY

9]b'JYf_Y\fgi bZU```]b'5b[Yfa ØbXY'Ua '&*"'\$\b]'&\$&).'G_cXU! : U\fYf]b'i bhYf'5`_c\c`[YfU'@G8'hf]ZZh'@]b]YbVi g" 9fa]hh`i b[Yb'`Ui ZYb"



5b[Yfa ØbXYž8Yi hgW `UbX'!'9]b'YfgW\fYW_YbXYf

JYf_Y\fgi bZU``YfY][bYhY'g]W\'Ua '&*"'\darkarrow'b]']b'5b[Yfa ØbXYž'U`g

Y]bY'*)!'À\f][Y': U\fYf]b'a]h']\fYa 'G_cXU'Fcca ghYf'i b[YVfYa gh
]b'Y]bYb'@]b]YbVi g'_fUW\hY"'8Ug'l b[`ØW_'dUgg]YfhY'i a '%&'l \f'Ub

XYf'?fYi ni b['6Yf`]b'GhfU\darkarrow'Y'i bX'6U\b\cZgj cfd`Uhn"'8Yf'6i g'k Uf

ni 'X]YgYa 'NY]hdi b_h'Ub'Y]bYf'5a dY`'Ub[Y\U`hYbž'k À\fYbX'X]Y

G_cXUZU\fYf]b'VY]a '5VV]Y[Yb'j cb'XYf'6Yf`]bYf'GhfU\darkarrow'Y']b

F]W\hi b['6U\b\cZ'X]Y'?cbhfc``Y'ØVYf']\f': U\fnYi ['j Yf`cf"

K]Y 'XYf'BcfX_i f]Yf'VYf]W\hYhz'_Ua 'XYf'G_cXU'ni b\AW\gh fYW\hggY]h]['j cb'XYf'GhfU» Y 'UV'i bX'`UbXYhY'Ui Z'Y]bYa ; fØbghfY]ZYb"'5bgW\`]Y» YbX'`Yb_hY'X]Y': U\fYf]b'ni fØW_'Ui Z'X]Y : U\fVU\bz'k c'Yg'ni f'?c``]g]cb'a]h'XYf'`]b_Yb'GY]hY'XYg'k UfhYbXYb 6i ggYg'_Ua "'6Y]'XYf'I bZU``Ui ZbU\a Y'VYa Yf_hYb'X]Y
Dc`]nY]VYUa hYb'5`_c\c`[Yfi WX']b'XYf'5hYa `i Zh'XYf': fUi "'9]b
Xi fWX[YZØ\fhYf'5hYa U`_c\c`hYgh'Yf[UV'VYi bfi \][YbXY'&ž&%
Dfca]``Y"

5`_c\c`]g]Yfi b['i bX'fYW\h`]W\Y ?cbgYei YbnYb

8]Y 'fYW\ h`]W\ Yb '5 i gk]f_i b[Yb 'ZØf'X]Y ': U\ fYf]b 'g]bX'[fUj]YfYbX'' G]Y 'a i gghY']\ fYb ': Ø\ fYfgW\ Y]b 'UV[YVYb'i bX'g]W\ 'Y]bYf 6`i hYbhbU\a Y']a '? fUb_Yb\Ui g'i bhYfn]Y\Yb''' 9]b 9fa]hh`i b[gj YfZU\ fYb'k i fXY'Y]b[Y`Y]hYhž'XUg'k Y[Yb'; YZÀ\ fXi b[XYg'GhfU\(\delta\) Ybj Yf_Y\fg']b'J YfV]bXi b['a]h'Y]bYa 'J Yf_Y\fgi bZU`` [YZØ\fh'k]fX'''@Ui h'XYb'FY[Y`i b[Yb'ni 'Dfca]``Y[fYbnYb']b 8 Yi hgW\`UbX']gh'XYf'K Yfh'j cb'\&ž\%'Dfca]``Y'a Y\f'U`g Ui gfY]W\YbXž'i a 'j cb'UVgc`i hYf': U\fi bhØW\h][_Y]h'Ui gni [Y\Ybž k Ug'ghfUZfYW\h`]W\Y'?cbgYei YbnYb'bUW\'g]W\'n]Y\h''

@Ui h'5857'[Y'hYb'_`UfY'; YgYhnY'ZØf'XYb'I a [Ub['a]h'5`_c\c``Ua GhYi Yf"'5i hcZU\fYfž'X]Y'nk]gW\Yb'\$ž) 'i bX'%ž\$-'Dfca]``Y'\UVYbž VY[Y\Yb'Y]bY'CfXbi b[gk]Xf][_Y]hž'X]Y'a]h'f]W\hYf`]W\Yb'GhfUZYb i bX'6i » [Y`XYfb'j YfVi bXYb']gh"'6Y]'Y]bYa 'K Yfh'UV'%ž%'Dfca]``Y []`h'Yg'U`g' UVgc`i hY': U\fi bhØW\h][_Y]h ž'i bX'X]Y'fYW\h`]W\Yb : c`[Yb'g]bX'i a [Y\YbX'ni 'gdØfYb"'Ni XYa '_Ubb'X]Y'J Yfg]W\Yfi b[]a 'GW\UXYbgZU```b]W\h'bi f'X]Y'5i gnU\`i b['j Yfk Y][Yfbž'gcbXYfb Ui W\FY[fYggZcfXYfi b[Yb'V]g'ni ') \$\$\$'9i fc'[Y[Yb'XYb': U\fYf [Y`hYbX'a UW\Yb"

Dfàj Ybh]cb i bX 6Yk i gghgY]b

8]Y; YZU\fYb'XYg'5`_c\c`[Ybi ggYg']a 'GhfU» Ybj Yf_Y\f'g]bX k c\`VY_Ubbh"'9]b'\U`VYf'@]hYf'6]Yf'_Ubb'VY]'Y]bYf Xi fW\gW\b]hh`]W\Yb'DYfgcb'gW\bY```ni 'Y]bYa '5bgh]Y['XYg 6`i hU`_c\c`[Y\U`hg'j cb'Yhk U'\$\overline{z}' V]g'\\overline{z}' ('Dfca]``Y'\\overline{z}'\overline{z}'\overline{z

Ghfu» Ybj Yf_Y\fini [Yk À\f`Y]ghYb"'9]b J Yfghc» [Y[Yb X]Y \$ž\$!Dfca]``Y[fYbnY'_Ubb ZØf'^I b[Y': U\fYf'XfUgh]gW\Y': c`[Yb\UVYb' 'b]W\h'bi f']b': cfa 'j cb'6i » [Y`XYfbž'gcbXYfb'Ui W\']b'XYf J Yf`Àb[Yfi b['XYf'DfcVYnY]h"

 $: \varnothing f'6Yfi Zg_fUZhZU \ fYf'g]bX'X]Y'HfU[kY]hY'i bX'X]Y'?cbgYei YbnYb VY]a '5`_c \ c`_cbgi a 'VYgcbXYfg' \ cW'''6Y]'Y]bYa 'JYfghc "-Ubb b]Whibi f'XYf': <math>\varnothing \ fYfgWXY]b'j Yf'cfYb'[Y \ Ybz'gcbXYfb'Ui WX'XUg 5fVY]hgj Yf \ A`hb]g']b'; YZU \ f'[YfUhYb'''Ni gUa a YbZUggYbX'`Aggh g]WX'gU[Yb.'5`_c \ c`'Ua 'GhYi Yf' \ Uh'b]WXh'bi f''A f]gh]gWXYz'gcbXYfb Ui WX'k Y]hfY]WXYbXY'dYfgOb`]WXY'?cbgYei YbnYb'Z<math>\varnothing f'$: U\fYfb'i bX UbXYfY'JYf_Y\fghY]`bY\a Yf''

 $8]Y'; YgWXYVb]ggY']b'5b[Yfa ØbXY'g]bX'Y]b'Y]bXfØW_`]WXYfFYa]bXYf'ZØf'U``Y'JYf_YVfghY]`bYVa Yfž'k]Y'k]WXh]['Y]bjYfUbhk cfhi b[gVYk i gghYf'l a [Ub['a]h'5`_c\c`']gh''$

8 Y hU]`g	
Cfh	5b[Yfa ØbXYž8Yi hgWX`UbX
EiY``Yb	• k k k "bcfX_i f]Yf"XY
	• k k k "UXUWXY
	• k k k "XU!X]fY_h"XY

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