

FYj c`i h]cb']a '>cVa Uf_h.'K]Y'5=i bX 6`cW_WXU]b'X]Y'Ni _i bZh'[YghU`hYb

8]Y'JYfgW\a Y`ni b['j cb'?=i bX'6`cW_W\U]b'fYj c`i h]cb]Yfh XYb'5fVY]hga Uf_h'V]g'&\$&) ž'ZÒfXYfh'XYnYbhfU`Y'D`UhhZcfa Yb i bX'bYi Y'5bghY``i b[qa Yh\cXYb"



B#5 !!8]Y'K Y`h'XYf'5fVY]h'ghY\h'j cf'Y]bYa 'I a Vfi W\ž'k]Y'Yf'gc bcW\"b]W\h'Yf\YVh'k i fXY"'8]Y' \pm hY[fUh]cb'j cb'?Øbgh`]W\Yf \pm hY``][Ybn'f!? \pm 'i bX'6`cW_W\U]b!HYW\bc`c[]Y'j Yf\hbXYfh'XYb \\
\(\times Va Uf_h\z'j cf'U\'\Ya 'Xi fW\'X]Y'bYi Yb'\A\\O[\`]W_Y]hYb\z'X]Y'XUg \\
K YV' !2 _cgmghYa 'V]YhYh''@Ui h'5]bj Ygh'ghY\Yb'V]g'\&\\$\\\) 'Yhk U \\
-) | 'XYf'\A Uf_Yh]b['\c\Vg'\Ui Z'\XYa '\Gd]Y\'''\8]YgY'\HYW\\bc`\c[]Yb \\
Vf]b[Yb'\gck c\\'\[fc*Y'7\\Ub\W\b'\U'\g'\Ui W\'\<\Yf\Ui g\z\cf\XYfi b[Yb'\Z\Of\]f\\Y\Yf'\a]h'\g]W\"

Yf\YV`]W\ 'hfUbgZcfa]Yfh'k]fX"'6YgcbXYfg'VYa Yf_Ybgk Yfh']gh'XYf 5bgh]Y['j cb'? \pm [YghYi YfhYb';][! \approx Vg'i bX'X]Y'J Yfk YbXi b['j cb 6`c\W\U]b'Z\Øf'X]Y'\ VYfdf\ØZ b['j cb'E i U`]Z]_Uh\cbYb"

8]Y'Fc``Y'jcb'K YV' 'i bX'XYnYbhfU`Yb D`UhhZcfa Yb

K Ugʻ[YbUi 'VYk]f_hʻK YV' 3ʻ9gʻ\UbXY`hʻg]W\ʻi a 'Y]bʻcZZYbYg BYhnk Yf_ž'XUgʻ \pm bHYfU_h]cbYbʻc\bYʻNk]gW\Yb\ÀbX`YfʻYfa Ò[`]W\hž [YdfÀ[hʻj cbʻ8YnYbhfU`]g]Yfi b[ž'HfUbgdUfYbnʻi bXʻGa Ufh 7cbhfUWhg"8]YgYʻA Yf_a UʻYʻgW\UZZYbʻbYi Yʻ \pm Vgʻ]bʻXYbʻ6YfY]W\Yb 6`cW_W\U]bʻi bXʻ? =i bX'n]Y\Ybʻj]Y`ZÀ`h][Yʻ: À\][_Y]hYbʻUb"ʻK]Yʻ 7fmdhc \pm VgʻYf_`ÀfhžʻYfa Ò[`]W\YbʻXYnYbhfU`Y FY_fi h]Yfi b[gd`UhhZcfa YbʻX]fY_hYʻ \pm bHYfU_h]cbYbʻnk]gW\Yb 5fVY]h[YVYfbʻi bXʻ? UbX]XUhYbž'k cXi fW\'hfUX]h]cbY``Yʻ< \emptyset fXYb UV[YVUi h'k YfXYb"

8 i fW. 'XYb'9]bgUhn'j cb'?=_ObbYb'< F!DfcZ]g'Ui Z'Y]bYb'[`cVU`Yb HU`Ybhdcc``ni [fY]ZYb'i bX'[`Y]W\nY]h]['X]Y'?ca d`Yl]hÀh']a FY_fi h]Yfi b[gdfcnYgg'fYXi n]YfYb"'? \pm [YghYi YfhY \approx Vj Yfa]hh`i b[gU`[cf]h\a Yb'j YfVYggYfb'b]W\h'bi f'X]Y'E i U`]hÀh XYf'9]bghY``i b[Ybž'gcbXYfb'Ui W\'X]Y'; YgW\k]bX][_Y]h'i bX 9ZZ]n]Ybn' 'Y]b'_`UfYf'J cfhY]`']b'Y]bYf'NY]hž']b'XYf'+* i 'XYf DYfgcbU'j YfUbhk cfh`]W\Yb'GW\k]Yf][_Y]hYb'\UVYbž'X]Y'f]W\h][Yb HU`YbhY'ni 'Z]bXYb"

HfUbgdUfYbn'i bX'9ZZ]n]Ybn']b'XYf FY_fi h]Yfi b[

 $6`c W_W U]b!HYW bc`c[]Y`dcfÒgYg`FY_fi h]Yfi b[gdfcnYggYž]bXYag]Y`gcZcfh][Y`JYf]Z]n]Yfi b['j cb`E i U`]Z]_Uh]cbYb`V]YhYhi bX`X]Y bj YfÀbXYf`]W_Y]h`XYf`6YgW\ÀZh][i b[g\]ghcf]Y`g]W\Yfh"8]Yg`g]bX k]W\h][Y`: U_hcfYb`]b`Y]bYf`6fUbW\Yž']b`XYf`,) i `XYf`6Yk YfVYf b]W\hY]ba U``Y]bY`FØW_a Y`Xi b[`Ui Z']\fY`6Yk YfVi b[Yb`Yf\U`hYbž k]Y`X]Y`FYWfi]ha Ybh`Ga Ufh`nY][h"I bhYfbY\a Yb`gYhnYb ni bY\a YbX`Ui Z'? \\[YghØhnhY`GWfYYb]b[!Hcc`gž`X]Y`XYb 6Yk YfVi b[gdfcnYgg`i a `() i `gW\bY``Yf`a UW\Yb`i bX`Jcfi fhY]`Y$

 $8 \ Yf' 9] bg Uhn'j \ cb' Ga \ Ufh' 7 \ cb hf UWhg' Yfa \ \grave{O}[\ `]W \ h'Ui \ hca \ Uh] g] Yfh Y NU \ `i \ b[\ Yb'] a 'K \ YV' ! & Va \ Uf_hž'k \ Ug' XYb' 5 Vk] W_`i \ b[\ gd fcn Ygg' ZØf U``Y' 6 YhY]`][hYb' Yf\ YV`]W 'j \ YfY] b ZUW h'' 8] YgY' HYW bc`c[] Yb' hf U[Yb XUni 'VY] ž' XUgg' 6 Yk Yf VYf'j c``Y'? cb hf c``Y' ØVYf'] \ fY' 8 UhYb \ VY\U`hYb'i bX'g] W Yf'gY] b'_\ObbYb ž' XUgg'] \ fY' \ \ \ \ \ \ \ D \ Zc fa \ Uh] cbYb [YgW \ Øhnh'g] bX''$

K UW ghi a 'i b X '< YfUi gZcfXYfi b[Yb']b'XYf ? = 'i b X '6 `c W_W U]b! = b h Y [fUh]c b

 $5``YfX]b[g`g]bX`b]WXh`U``Y`£Vg`jcb`X]YgYf`KUbX`ib[`VYhfcZZYb"Dcg]h]cbYbž`X]Y`UiZ`nk]gWXYbaYbgWX`]WXY`6Yn]Y\ib[Ybž?fYUh]j]hÀh`ibX`9]bg]WXh`VUg]YfYbž`XØfZhYb`UiWX`kY]hYf\]b`jcbAYbgWXYb`VYgYhnh`kYfXYb"`?=V]YhYh`UiWX`bYiY`AÒ[`]WX_Y]hYb`ZØfIbhYfbY\aYfhiaž`]bXYa`g]Y`Yg`9]bnY`dYfgcbYb`YfaÒ[`]WXhž`c\bYiaZUb[fY]WXY`Dfc[fUaa]Yf_Ybbhb]ggY`Y][YbY`;YgWXÀZhY`ni[fØbXYb"$

 $8]Y `GWX bY```YV][_Y]h `XYf `9bhk]W_`i b[Yb `Vf]b[h `Ui WX < YfUi gZcfXYfi b[Yb `a]h `g]WX "`I bhYfbY\a Yb `a ØggYb `g]WX `XUfUi Z Y]bghY ``Ybž `XUgg `XYf `K Yfh `a YbgWX `]WX Yf <math>=$ bhY ``][Ybn `UVb]a a hž k À\fYbX `X]Y `? cghYb `ZØf `? =g]b_Yb" `8]Y `J Yf `U[Yfi b[`\]b `ni X][]hU`Yb `5b[YghY ``hYb `_ÒbbhY `b]WX h `bi f `X]Y `9]bghY ``i b[gnU\ `Yb VYY]bZ i ggYbž `gcbXYfb `Ui WX `X]Y `K YhhVYk YfVg`UbXgWX UZh Yf\YV`]WX 'j Yf ÀbXYfb"

: Un]h '8 |Y '\dagger hY [fUh]cb 'j cb '? = i b X '6 \cw_WX U]b 'fY j c\ i h]cb |Yfh XYb

æVa Uf_hi bX gWX UZZhini [`Y]WX 'Y]b '_ca d`Yl Yg 'GdUbbi b[gZY`X" Bi f'k Yf'VYfY]h']ghž g]WX 'X]YgYb '< YfUi gZcfXYfi b[Yb'ni 'ghY``Yb'i bX X]Y '7 \ Ub WYb'ni 'bi hnYbž'k]fX ']b 'XYf'Ni _i bZh'VYghY \ Yb'_ÒbbYb"

8 YhU]`g	
Cfh	B #5
EiY``Yb	• k k k "U]bj Ygh"Wca
	• kkk"Wfmdhc^cVg"Wca
	fYWfi]ha Ybhga Ufh"Wca

6Ygi WXYb G]Y i bg Ui Z. k ca , + "XY