

JUbʻxifbU`KcWXY'%+.'9]bZUWX'gc']gh ibgYf'JUb'jYf_UiZh°

Jž'bUW\ 'k Yb][Yf'U`g'Y]bYf'K cW\Yž'bUW\XYa '7`]ZXYb'Ui Z'XYb
A Uf_h'[YVfUW\h'k i fXYž'_cbbhY'Y]bY'gY\f'[`ØW_`]W\Y'8 Ua Y'7`]ZXYb
ZØf']\fY'Y][YbYb'5VYbhYi Yf']b'5i ghfU`]Yb'gW\bUddYb"

9\f`]WX [YgU[hž\UhhYb'k]f'_Y]bY'5\bib[ž'XUgg'k]f'ibgYfYb'JUbžibgYf'YfghYg'Ni\UigYž'gc'gWXbY``'jYf_UiZYb'kØfXYb'''K]f'\UVYb7`]ZXYb'UiZ'XYb'AUf_h'[YVfUWXhž'kY]`'k]f'XUWXhYbž'k]f'kØfXYbb]WXh'j]Y``+bhYfYggY'VY_caaYbž'kYbb'aUb'VYXYb_hž'k]YUV[Y`Y[Yb'HUgaUb]Yb']gh''

ib [Yž``U[Yb`k]f`ZU`gW\"'=bbYf\U`V`Y]bYf`K cW\Y`\UhhYb`k]f

5bZfU[Yb`Uig`[Ubn`5ighfU`]Yb"`K]f`\UhhYb`j]Yf`@YihYž`X]Y
ibVYX]b[h`[Y_caaYb`kÀfYbž`ia`g]W\`<cVUfh`UbnigY\Ybž`UVYf
Y]b`[`ØW_`]W\Yf`?ÀiZYf`kUf`bif`%)`A]bihYb`YbhZYfbhž`gU\`ibgYfYb
@]YZYfkU[Yb`ibX`VYgW\`cgg`bUW\`Y]bYf``Ub[Yb`BUW\hgW\]W\hž`ibg
Y]bY`BUW\f]W\h`ni`gW\]W_Yb"`9]b`dUUf`HU[Y`gdÀhYf`gU[hYb`k]f
hfÀbYbfY]W\`5VgW\]YXž`\UhhYb`k]YXYf`Y]baU``ibgYfY`FiW_gÀW_Y

[YdUW_h'i bX'k UfYb']b'Y]b': `i [nYi ['bUW\': Uf'Bcfh\'EiYYbg`UbX'Ui Z[YVfcW\Yb"

U`h1 · 2

U`h1 K]f'gi W\Yb'Y]bYb'FY]gYVig 2

K]f'k UfYb'gW.cW_]Yfhž'k]Y'gW.bY```g]W. 'X]Y'8]b[Y'VYk Y[h'\UhhYb"@Y]XYf'[UV'Yg'Y]b'dUUf``YhnhY'8]b[Y'Ui Z'i bgYfYf'HUgg]Y!@]ghYž'X]Y X]Y'NY]h'b]W.h'ni [Y`UggYb'\UhhY"'K]f'\UhhYb'_Y]bY'7\UbW'ž'ni a : fYbW.a Ub g'7Ud'ni 'ZU\fYb'cXYf'ØVYf'H\Y'Cj Yf`UbX'ni 'k UbXYfb" 5VYf'Ua '9bXY'g]bX'k]f'i bgYfYa '6Ui W.[YZØ\`'[YZc`[h'i bX'\UVYb i bg'YbhgW.]YXYbž'X]YgY'ZØf'X]Y'bÀW.ghY'FY]gY'bUW.'HUga Ub]Yb'ni `UggYb"

5VgWX]YX bY\a Yb

I bgYfYfghYg' < Ui g'b UW\ 'U```XYf'\ UfhYb'5fVY]h'VY]a '6Ui 'i bX'XYb i b[`Ui V`]W\ Yb'9f]bbYfi b[Ybž'X]Y'k]f'[YgW\ a]YXYh'\ UhhYbž'ni j Yf_Ui ZYbž'k Uf'_Y]bY '`Y]W\ hY'9b hgW\ Y]Xi b["'Hfc hnXYa '\ UVYb'k]fž bUW\ XYa 'k]f'XYb'[fÒ» hYb'HY]`'i bgYfYg'9fk UW\ gYbYb`YVYbg'Ui g Y]bYa 'Fi W_gUW_'\YfUi g'[Y`YVh'\UVYbž'[Y`Yfbhž'b]W\ h'ni 'gY\f'Ub a UhYf]Y``Yb'6Yg]hnhØa Yfb'ni '\ Ab[Yb"'5VYf'XYbbcW\ 'k Uf'7`]ZXYb i bgYfY'9]bhf]hhg_UfhY']b'X]Y': fY]\Y]h']b'XYb'i bg]W\ YfghYb'NY]hYb i bgYfYg'@YVYbg"'K A\fYbX'X]Y'DUbXYa]Y'i bgYfYb'@YVYbggh]`'i bX i bgYf'; YgW\ AZh'Ui Z'XYb'?cdZ'ghY``hYž'Yfa Ò[`]W\ hY'i bg'X]YgYf'J Ubž k Y]hYf'ni 'ZcfgW\ Ybž'ni 'k UW\ gYb'i bX'`YVYbg`Ub[Y'9f]bbYfi b[Yb ni 'gW\ UZZYb"

K]f'a ÒW hYb'7`]ZXYb'ZØf'U``X]Y'[fc»Ufh][Yb'NY]hYb'XUb_Yb'i bXk]f'a ÒW hYb'U`Yb'XUb_Ybž'X]Y'i bg'Ui Z'i bgYfYf'FY]gY'VY]a
5i ZVUi '[Y\c`ZYb'\UVYbž'gck]Y'U``XYb'[fc»Ufh][Yb'A YbgW Ybž'X]Yk]f'Ui Z'XYa 'K Y['[YhfcZZYb'\UVYb°

- 'U`h1 2
- "U"h1 J5B \times IFB5@H5GA5B \oplus 7<9F9 \oplus 9 2
- 'U`h1 75A D=B; 'A =H'A I HH9F 2
- 'U`h1 ?@9\B9F'6@5|9F'G99'H5GA5B\9B 2
- 'U`h1 A ≠H'I BG9F9A 'J5B'5I: '89A'; 9€H'JCB H5GA5B⇒B 2
- 'U'h1 K \neq 'GI 7 < 9B '9 \oplus 9B 'F 9 \oplus 9K 5; 9B 2

- 'U`h1 75A D=B; '5A '6F58MG'@5?9'H5GA 5B=9B 2
- 'U'h1 : 5 < F9B'9 + 9G'J5B'5A'H5GA5B + 67 < 9B'@5?92
- 'U`h1 J5B!F9\(\pi\9B'\)\\\B'\H5GA5B\(\pi\9B'\)\\2
- "U"h1 $K \neq "GI 7 < 9B"9 \Rightarrow 9B"F9 \Rightarrow 9K 5: 9B 2$
- 'U'h1 H5GA 5B = 9BG'G7 < 2BGH9'GHF 5GG9 2

8 UgʻUi ghfU`]gW\Y`J Ub!@YVYb`]ghʻU`gc`Y]bZUW\`gc`ni `9bXY [Y[Ub[Yb"`K Ugʻ]gh`Yhnh`XYf`D`Ubž'ZfU[Yb`G]Y`q]W\`;]Y``Y]W\h3

K]f'g]bX'k]YXYf']a 'gcbb][Yb': Uf'Bcfh\'Ei YYbg`UbX
Ub[Y_ca a Yb'i bX'd`UbYbž'X]Y'GW\f]hhY'Ui gni UfVY]hYbž'X]Y
YfZcfXYf`]W\'g]bXž'i a 'bUW\', VYfgYY'ni fØW_ni _Y\fYb"'K]f'\UVYb
]a a Yf'bcW\'Y]b']bhYfbUh]cbU`Yg'5fVY]hgj]gi a ž'Y]bY
5i gbU\a Y[YbY\a][i b[ž'X]Y'k]f'Yf\U`hYb'_cbbhYbž'XU'FY]gYb
i bgYfY'5i Z[UVY'g]bX"'5b[Yg]W\hg'XYg'U_hi Y``Yb'?`]a Ug'a ØggYb
k]f'YXcW\'Y]b][Y'< ØfXYb'bY\a Yb"

K Ybb'G]Y'XUfUb']bhYfYgg]Yfh'g]bXž'a]h'i bgYfYf'FY]gY'GWXf]hh'ni \U`hYbž'VYgi WXYb'G]Y'a Y]b' ≠bghU[fUa'

п

8 Y hU]`g

6 Ygi WX Yb 'G]Y 'i bg 'Ui Z 'Y]bY!fY]gY "XY