

DfchYghY`]b`HY``5j]j . `HUi gYbXY`ZcfXYfb ; Y]gY`b`i bX`_f]h]g]YfYb`BYhUb^U\i

HUi gYbXY =gfUY`]g'XYa cbghf]YfYb']b'HY`'5j]j'[Y[YbBYhUb'U\i g'; UnU!Dc`]h]_'i bX'ZcfXYfb'X]Y': fY]`Uggi b['j cb; Y]gY`b"



 $HY``5j]j \ \check{z} = gfUY``!`HUi gYbXY`= gfUY`]g``\UVYb`g]W``Ua `[Yghf][Yb HU[jcf`XYa JYfhY]X][ib[ga]b]ghYf]ia `]b`HY``5j]j `j YfgUa a Y`hžia `ZØf`X]Y`: fY]`Uggi b[`XYf`]b`; UnU`ZYgh[Y\U`hYbYb'; Y]gY`b`ni XYa cbghf]YfYb"`8]Y`DfchYghU_h]cb`ZUbX`dUfU``Y``ni `XYb A U**bU\a Yb'j cb`DfYa]Yfa]b]ghYf`6Yb'Ua]b`BYhUb'U\i `ghUhhž`XYf X]Y`A cV]`]g]Yfi b[`j cb`V]g`ni `*$"$$$`FYgYfj]ghYb'[YbY\a][hY"8]Yg`XYi hYh'Ui Z'Y]bY`a <math>O[`]WXY'= hYbg]j]Yfi b[`XYf`a]`]hAf]gWXYb CdYfUh]cbYb']a ; UnUghfY]ZYb'\]b"`9]b`8Ya cbghfUbh`\]Y`h'Y]b D`U_Uh'a]h'XYf`5i ZgWXf]Zh.` I bgYf`HmfUbb']gh'Y]b`@O[bYfžkY[Yb]\a `VfYbbh'XYf`GhUUh ž'k Ug'X]Y`K i h'j]Y`Yf`6Øf[Yf`ØVYf`X]Y [Y[Ybk Afh][Y`G]hi Uh]cb`k]XYfgd]Y[Y`h"$

FY[]Yfi b[gj YfhfYhYf'VY\Ui dhYbž'XUgg'Y]bY'Yfk Y]hYfhY

A]`]hÀfc ZZY bg]j Y `X Uni `ZØ\ fY b `_Obb hY ž `X Ugg `< Ua Ug`X]Y `bc W\`) - j YfV`Y]VY b XY b `; Y]gY`b `ZfY]`Àggh"`? f]h]_Y f`\]b[Y[Yb`k UfbYbž `X Ugg X]Yg` X Ug`@Y VY b` XY f`; Y]gY`b` k Y]hY f`[YZÀ\ fXY b`_Obb hY "`9]b`9b XY XYg`j c fØVY f[Y\Yb XY b` K UZZY bgh]``ghUb Xg` ZØ\ fhY`V]g`Ub[`b]W\ h`ni k Y]hY fY b `: fY]`Uggi b[Yb" \Rightarrow Y]b Ya `i a ghf]hhY bY b` J]XY c ž `X Ug`j c b < Ua Ugʻj YfOZZY bh`]W\ h`k i fXY ž `]gh`Y]b Yf` XY f`; Y]gY`b ž `A UI]a `< Yf_]b ž ni `gY\Yb ž k]Y`Yf`j c b` < Ua Ug!A]h[`]Y XY fb`[YfYhhY h`k]fX ž `b UW\ XY a Y]b`]gfUY`]gW\ Yf`5b[f]ZZ`Y]b Yb`Hi bb Y``[Yhfc ZZY b`\Uh" 8]Y`: Ua]`]Y b XY f`; Y]gY`b`Ài » YfhYb`]\ fY` ei U`j c``Y`5b[gh`@VYf`X]Y`[Yd`Ub hY 9g_U`Uh]c b`XY f`FY[]Y fi b[`i bX`j Y fi fhY]`hYb`X]Y`a]`]hÀf]gW\ Y C ZZY bg]j Y`U`gʻf@W_g]W\ hg`cg"

K UWX gYbXY DfchYghY i bX [YgY ``gWX UZh`]WX Y GdU`hi b[

 $8]Y'DfchYghY'Ua'GcbbhU['k UfYb'X]Y'[fO) hY'IbhYfghØhnib['ZØfY]bYb'; Y]gY`bU\a Y!8YU`gY]h'XYa'+"'C_hcVYfž'U`g'<Ua Ug! A]`]hUbhY'&) $'A YbgWXYb'YbhZØ\fhYb'''GYWXg'; Y]gY`b'kifXYb_\@fn`]WX'jcb']\fYb'9bhZØ\fYfb'[YhOhYhž'kÀ\fYbX']gfUY`]gWXY HfiddYb'g]WX']\fYa'GhUbXcfh'bÀ\YfhYbž'kcXifWX'XYf'8fiW_'UiZBYhUb'U\i'kY]hYf'nibU\a'''6Yf]WXhYb'niZc`[Y'a UWXYb'j]Y`Y\=gfUY`]g'XYb'A]b]ghYfdfAg]XYbhYb'ZØf'X]Y'ghY][YbXY'NU\`'XYf'hchYb; Y]gY`b'jYfUbhkcfh`]WX'ibX'ZcfXYfb'Y]bYb'KUZZYbgh]``ghUbXž'iaX]Y'jYfV`Y]VYbXYb'YhkU''%$$'; Y]gY`b'ni'VYZfY]Yb''$

Dc`]h]_k]ggYbgWX UZh`Yf`k UfbYb`YXcWX ž'XUgg`c\bY`VfY]hYfY
[YgY``gWX UZh`]WXY`DfchYghY`BYhUb'U\i a O[`]WXYfk Y]gY`b]WX hii bhYf
8 fi W_ [YgYhmh`k]fXž'gY]bY`JYf\UbX`i b[gdcg]h]cb`ni `AbXYfb"
K A\fYbX``]VYfU`YfY`GhAXhY`k]Y`HY``5j]j `Ub`XYb`DfchYghYb
hY]`bY\a Ybž'V`Y]Vh`X]Y`I bhYfghØhni b[`]b`_cbgYfj Uh]j YfYb`GhAXhYb
[Yf]b["'8]Y`; Yk Yf_gWXUZh`<]ghUXfi h`\UhhY`Y]bYb`; YbYfU`ghfY]_
Ui g[Yfi ZYbž'XYf`YXcWX`j cb`Y]bYa `5fVY]hg[Yf]WXh`bUWX`k Yb][Yb
Ghi bXYb`i bhYfgU[h`k i fXY"8Yf`GhfY]_`k i fXY`U`g`dc`]h]gWX
a ch]j]Yfh`Y]b[Yghi Zhž'k Ug`X]Y`h]YZYb`dc`]h]gWXYb`GdU`hi b[Yb
]bbYf\U`V`=gfUY`g`i bhYfghfY]WXh"

?f]h]_ Ub BYhUb 'U\i g ?i fg

BYhUb'U\i g]Y\hg]W\ni bY\a YbXYf??f]h]_'Ui g'XYa '\delta'! i bX
5i g`UbX'Ui g[YgYhnh" I G!DfÀg]XYbh'\&Y'6]XYb'\Uh']\b'ÒZZYbh`]W\
_f]h]g]Yfh'i bX'[YgU[hž'XUgg'Yf'b]W\h'[Ybi ['hi Yž'i a 'Y]bYb'8YU`
Ui gni \UbXY`b"'?f]h]_Yf'k YfZYb'BYhUb'U\i 'j cfž'gY]bY'dc`]h]gW\Y
, VYf`YVYbgZÀ\][_Y]h'ØVYf'XUg'GW\]W_gU``XYf'; Y]gY`b'ni 'ghY``Ybž
k À\fYbX'Yf'g]W\'Ui Z'X]Y'I bhYfghØhni b['i `hfUbUh]cbU`]gh]gW\Yf
DUfhY]Yb'ghØhnhž'X]Y'[Y[Yb'Y]bYb'K UZZYbgh]``ghUbX'g]bX"'8]YgY
DUfhY]Yb'Xfc\Ybž'X]Y'FY[]Yfi b['ni 'ghØfnYbž'ZU``g'Yf'ni gh]a a h"

5a 'A cbhU['k i fXY'XYf']bhYfbUh]cbU`Y': `i [\UZYb'6Yb'; i f]cb'ZØfnk Y]'Ghi bXYb'[YgW\`cggYbž'k Ug'X]Y'9g_U`Uh]cb'XYf'DfchYghYbcW\a U`g'j YfXYi h`]W\h''K Y]hYfY'DfchYghY'g]bX'ZØf'8]YbghU[Ub[Y_ØbX][hž'k À\fYbX'XUg'@UbX'k Y]hYf\]b'Ui Z'Y]bY'@Ògi b[']bX]YgYf'_f]h]gW\Yb'G]hi Uh]cb'k UfhYh'

: Øf'a Y\f' ⊕ Zcfa Uh]cbYb'ni 'XYb'`Ui ZYbXYb'9bhk]W_`i b[Yb VYgi W\Yb'G]Y'V]hhY. '5``>UnYYfUž'5D'BYk g'i bX'8]Y'NY]h"

8 YhU]`g	
J c f ZU``	Dfc hY gh
I fgUWX Y	9fa cfXi b[ˈj cbˈ; Y]gY`b
Cfh	HY``5j]jž'-gfUY`
Ei Y``Yb	• k k k "U`^UnYYfU"Wca
	● UdbYk g"Wca
	• k k k "nY]h"XY