

=bgY`HUbbU']b'JUbiUhi.'i bVYfØ\fh'j ca Hcif]gaig

5i Z'HUbbU'\(\frac{a}{2}\)UbX'\\(\frac{b}{2}\)Ubi Uhi 'VY\(\frac{b}{2}\) Ubb'i bgYf\(\frac{5}{2}\)YbhYi Yf\(k\)]f_\(\frac{1}{2}\)W\(\frac{z}{2}\)Y\\(\frac{b}{2}\)Y\\(\frac{z}{2}\)Y\\(\frac{b}{2}\)Y\\(\frac{c}{2}\)Z\\(\frac{c}{2}\) [h'j cb'Y]bYf'\(n\)Ya `\]W\\(\frac{c}{2}\)H\(\frac{z}{2}\)Y\\(\frac{c}{2}\)H\(\frac{z}{2}\)Z'\(\frac{c}{2}\)H\(\frac{z}{2}\)Z'\(\frac{c}{2}\)H\(\frac{z}{2}\)Z'\(\frac{c}{2}\)H\(\frac{z}{2}\)Y\\(\frac{c}{2}\)H\(\fr

5i Z'HUbbU'=g`UbX']b'J Ubi Uhi 'VY[Ubb'i bgYf'5VYbhYi Yf'k]f_`]W\ž Y]bY'=bgY`ž'X]Y'bi f'(\$'_a '`Ub['i bX'&)'_a 'VfY]h']gh

BUWX 'Y]bYf'K cWXY'_ca ZcfhUV`Yf'GY`Vghj Yfgcf[ib[']b'9ZUhYž
[YZc`[h'jcb'Y]bYf'n]Ya`]WX '`ilif]ÒgYb'K cWXY'UiZ'5cfY'=g`UbXž
GUbhcž'k Uf'Yg'Ub'XYf'NY]hž'ni 'XYb'; fibX`U[Yb'nifØW_ni_Y\fYbž
X]Y'9fghY'K Y`h'UVnighfY]ZYb'ibX'Y]b'V]ggWXYb'YWXhY'B]!JUb!?i`hif
ni'Yf`YVYb"

=bgY`HUbbU']b'J Ubi Uhi

K]f'k i gghYbž'XUgg'i bgYf'5VYbhYi Yf'\]Yf'k]f_`]W\'VY[]bbYb k ØfXY.'Ui Z'XYf' \pm bgY``HUbbU']b'J Ubi Uhi ž'Y]bYb'(\$!a]bØh][Yb': `i [gØXÒgh`]W\'j cb'Dcfh'J]`U'Ui Z'Y]bYf'bi f'(\$'_a '`Ub[Yb'i bX'&)'_a VfY]hYb' \pm bgY`''K]f'ØVYfbUW\hYhYb'Ui Z'XYf'CghgY]hY'XYf' \pm bgY`']a Dcfh'FYgc`i h]cb'MUW\h'7`i Vž'XYf'ØVYf'Y]bYf'k i bXYfgW\`ObYb

8 Ugʻ@Yi WkhYbʻXYgʻU_h]j YbʻJi`_UbgʻXYfʻ±bgY`ž'A h'MUgi fžʻ]gh
_]`ca YhYfk Y]h'ni ʻgY\Ybʻi bXʻX]Ybh'FY]gYbXYbʻi bXʻ9]b\Y]a]gWkYb
[`Y]WkYfa U» YbʻUʻgʻ@Yi WkhZYi Yf"ʻK]fʻ\UVYbʻZØbZʻBÀWkhYʻ]bʻDcfh
FYgc`i h]cbʻj YfVfUWkhʻi bXʻYgʻ\Uhʻi bgʻgY\fʻ[i h'[YZU``Ybʻʻ\]Yfʻ]gh
XYfʻ; fi bX"

8 Y f MUW hWi V

?Ud]hÀb '>Ja Yg '7cc_'gY[Y`hY']a '5i [igh'%++('Ub'6cfX'XYf'< A G FYgc`i h]cb']b 'X]Y '6i W\h'i bhYf\U`V'XYf'?`]ddYbž'k c\Yf'XUg'8cfZi bX'XYf'\Yi h][Y'MUW\hWi V']\fYb'BUa Yb'\UVYb"

8U'i bg'_Y]b'6cch'ni f'J YfZØ[i b['ghUbXža i gghYb'k]f'i bg'XUa]h VY[bØ[Ybž'VY]XY'ØVYf'Y]bY'gY\f'\c`df][Y'nk Y]ghØbX][Y': U\fh'Ui Z _Ui a 'a Y\f'U`g'Y]bYa ': Y`Xk Y['ni 'YffY]W\Yb"'8Yf'Dcfh'F Ygc`i h]cb MUW\h'7`i V']gh'Y]b'j cb'XYf'; Ya Y]bXY'VYhf]YVYbYg'I bhYfbY\a Yb i bhYf'XYa 'g]W\YfYb'?ca a UbXc'j cb'K Yffmž'Y]bYa 'VY`]YVhYb'i bX i bhYfbY\a i b[g`i gh][Yb'9]b\Y]a]gW\Ybž'XYf''YXYb'Ui Z'XYf'\bgY`ni '_YbbYb'gW\Y]bh"

'U`h1 Dcfh'F Ygc`i h]cb'MUW\h'7`i V 25h`Ug'/ '6cchg'l bgYfY l bhYf_i bZh']a 'Dcfh'F Ygc`i h]cb'MUW\h'7`i V

9g'VYghY\h'Ui g'UW\h'6Ua Vi gVi b[U`ck g'a]h'Ghfc\XÀW\Yfbž'X]Y
U``Y'Ui g'`c_U`Yb'A UhYf]U`]Yb'[YVUi h'k i fXYb"'9g'[]Vh'gY`hYb'\Y]» Yg
K UggYf'i bX'XYf'Ghfca 'k]fX'bi f'nk Y]'Ghi bXYb'Ua 'HU['Ub[YghY``h
'UVYf'XUg'a UW\h'gW\cb'ZUgh'XYb'7\Ufa Y'Ui g"

A cb]ei Yž'K Yffmg': fUi ž'_cW\h'Y]bZUW\Y'5VYbXYggYb'ZØf'; ÀghYž'X]Y Y]bY'A]gW\ib['Ui g'MUW\h]Yg'i bX'Yb[U[]YfhYb'FY]gYbXYb'g]bXž XYbYb'Yg'b]W\hg'Ui ga UW\hž'g]W\'X]Y'<ÀbXY'gW\a i hn]['ni a UW\Ybž'i a 'XYg'[i hYb'U`ha cX]gW\Yb'5VYbhYi Yfg'k]``Yb"'8]Yg']gh _Y]b'FYgcfh'i bX'Yg'hi h'Ui W\'b]W\h'gc"'8Ug']gh'hfUX]h]cbY``Yg 8cfZYVYb'gY]h'\J\fnY\bhYb" Dcfh'F Ygc`i h]cb'j YfZØ[h'ØVYf'nk Y]'F YghUi fUbhg'f@YU g'F YghUi fUbh i bX'5j cWU'F YghUi fUbhŁž'Y]b': i » VU``ZY`Xž'fi bX'(\$\$'A YbgW\Yb i bX \ 'XUg'k Uf'Yg'Y][Ybh`]W\'gW\cb"'9g'`Ui ZYb'Y]b'dUUf'< \emptyset \bYf\Yfi a \check{z} 'UVYf'g]Y'k YfXYb'X]f'b]W\h'j]Y`'Ÿf[Yf'VYfY]hYb"'9g']gh'`Y]gY''k]f_`]W\'`Y]gY"

'U`h1 Y]b'FYghUi fUbh'Ui Z'XYf'\DgY``HUbbU']b'JUbi Uhi 25h`Ug'/6cchg'9]bYg'XYf'FYghUi fUbhg'Ui Z'XYf'\DgY``HUbbU']b'JUbi Uhi

8]Y 'ghfc\[YXYW_hYb'6ib[U`ckg'\UVYb'U``Y'\ØVgW\Y'; ÀfhYbž'X]Y
[ih'[YdZY[h'g]bXž'ibX'X]Y'@YihY'g]hnYb'ia']\fY': YiYf'\Yfiaž
ibhYf\U`hYb'g]W\ž'`ÀW\Y`b'ibX'k]b_Ybž'kÀ\fYbX'G]Y'jcfVY][Y\Yb"
8]Y FYghUifUbhg'\UVYb'_Y]bY'GdY]gY_UfhYb/'G]Y'kYfXYb
VY_caaYbž'kUg'Ub'X]YgYa'HU['jYfZØ[VUf']ghž'kUg
kU\fgW\Y]b`]W\FY]gž'CaY`YhhibX'YhkUg'7iffm[YaØgY'a]h'gØ»Yb:fØW\hYb'nia'BUW\h]gW\'gY]b'k]fX"'KYbb'G]Y'XUg';Y`X'Uig[YVYba'OW\hYbž'VYghY``Yb'G]Y'Zf]gW\Yb'HUbbU!?UZZYYž'ia'U``Yg\YfibhYfnigdØ`Yb"

K]f 'j YfVfUW\hYb'i bgYfY'BUW\a]hhU[Y'XUa]hž'Xi fW\'XUg'8cfZ'ni k UbXYfbž'ZU`gW\Y'5Vnk Y][i b[Yb'Xi fW\'XYb'K U`X'ni 'bY\a Ybž k]bn][Y'GhfÀbXY'ni 'YbhXYW_Yb'i bX'Yg'b]Y'ni 'gW\UZZYbž'X]Y'Ghck Uf@UXYbŁ'cXYf'XYb'A Uf_h'ni 'YffY]W\Ybž'k Ybb'g]Y'[YÒZZbYh'g]bX"

8 Yf GhfUb X

Hf]hhini f'GY]hYž@Yc"'=\Wik Uf'Ui Z'?c\'D\]'D\]'@Y\žXYa 'GW\Ui d`Uhn j cb'8 Ubbm'6cm'Yg':]`a 'a]h'@YcbUfXc'8]7 Udf]c'ØVYf'Y]b GhfUbXdUfUX]Yg'Ui Z'Y]bYf'[Y\Y]a Yb'=\bgY`' 'i bX'Yg'k Uf'j c``Yf Hci f]ghYbžni gUa a Yb'a]h'ÒZZYbh`]W\Yb'Hc]`YhhYbž'GbUW_VUfg'i bX 7 Ua d]b[d`ÀhnYb' 'k Y]h'YbhZYfbh'XUj cb'X]Y'@Y[YbXY']a ':]`a XUf[YghY``h"

'U`h1 ?`Y]bYf'GhfUbX 25h`Ug'/ '6cchg'?`Y]bYf'GhfUbX'Ui Z'XYf'±bgY` HUbbU']b'JUbi Uhi

@hh`Y`6YUW\ 'jcb`Dcfh`FYgc`ih]cb`]gh`Y]b`kibXYfgW\`ObYg hfcd]gW\Yg`DUfUX]Ygž`XUg`Yg`a]h`XYf`[Y\Y]aYb`\DgY``XYg`:]`ag Ui ZbY\a Yb'_Ubbž'UVYf'XUg']gh'XUg'Y]bn]['K U\fY"'8Yf'GUbXghfUbX]gh'bi f'nk Y]!'cXYf'XfY]\i bXYfh'A YhYf'`Ub[ž'Ub'VY]XYb'9bXYb'j cb'Y`gj cfgdfØb[Yb'i a [YVYb'i bX'j cb'DU`a Yb'i bX'FY[Ybk U`X [YgÀi a h"

K]f'j YfVfUW\hYb`Xcfh'j]Yf'HU[Y'i bX'hfUZYb`Y]bYb`K Ygh`Yf'i bX Y]bY'<UbXj c```9]b\Y]a]gW\Y"'<]Yf'[]Vh'Yg'_Y]bY'GbUW_VUfgž'bi f Zf]gW\Y'?c_cgbØggY'i bX'9]bVUi a _Ubi g"

8Yf'Ji`_Ub

G]Y [Y\Yb b]W hbUW HUbbUžc\bY XYb J i `_Ub a]bXYghYbg
Y]ba U`VYgi W hini '\UVYb" K]f k UfYb nk Y]a U`Xcfhii bX k ÀfYb
k U\fgWXY]b`]W Ui W Y]b Xf]hhYg A U`ni fØW_[Y[Ub[Yb" K Ybb G]Y
g]W bÀ\Yfbžfi a dY`hii bX _bi ffhYg G]Y Ubž UVYf b]W hg VYfY]hYh
G]Y f]W h]['Ui Z'gY]bY; Yk U`hij cf"

'U`h1 A ci bh'MJgi f'Ui Z'XYf' \DgY`'HUbbU 25h'Ug'/ '6cchg'8Yf Ji`_Ub'A ci bh'MJgi f'Ui Z'XYf' \DgY`'HUbbU']b'J Ubi Uhi

#W 'a UWX Y '_Y]bY 'K]hnY ' 'Y]ba U`'k UfYb'k]f'k]f',]WX 'i a 'i bgYf
@Y VYb 'VYgcf[h"'8i 'k Y]» hž'XUgg'X]Y '9fi dh]cbYb'_ca a Ybž'UVYf'g]Y
`UggYb'X]WX 'hfchnXYa 'gdf]b[Yb"'9g']gh'i bk U\fgWXY]b`]WX ž'XUgg'G]Y
@Uj UghfÒa Y 'gY\Yb 'fG]Y 'k ØfXYb'Ui Z'@Yj Y`'' 'b]WXh'Ui Z'XYb'Ji `_Ub
[Y`UggYb/'Ui Z'@Yj Y`'('k]fX'X]Y '₺gY`'Yj U_i]YfhŁž'UVYf'G]Y 'k YfXYb
fch[`Ø\YbXY'; `i h'gY\Ybž'X]Y'<i bXYfhY'j cb'A YhYfb']b'X]Y'@ Zh
[YgWXcggYb'k]fX'Y]bY'? fUZhž'X]Y'Ui g'h]YZghYa '₺bYfYb'_ca a h"</pre>

BY\a Yb'G]Y'Y]bZUW\'Y]bY'HUgW\Yb`Ua dY'i bX'_ca a Yb'G]Y'b]W\h

8]Y '? UfhY

→W '_cbbhY 'Y]bZUWX 'b]WX h'k]XYfghY\Yb"'8]YgYg' +bgY`dUfUX]Yg']gh
Y]b'YWXhYf'@YW_YfV]ggYbž'UVYf'b]WXh'[Ubn'Y]bZUWX 'ni 'YffY]WXYb"
K Ybb'G]Y'a]h'aY]bYf'?UfhY'XYb'K Y['ni' H\Y'6YUWX 'b]WXh
Z]bXYbž'gYbXYb'G]Y'Y]bZUWX'Y]bY'9!AU]`'Ub'K Yffm'i bhYf
k bUfi U4 [aU]`"Wca"''9f`\c`h'G]Y'j ca': `i [\UZYb'UV'i bX'`Àggh'X]Y

±bgY``XYb'FYgh'Yf`YX][Yb"

'U`h1 8]Y'?UfhY'XYf' = bgY`'HUbbU']b'JUbiUhi 2

$=bgY``HUbbU']b'JUbiUhi.'5bZU\fh$

K]f'g]bX'a]h'5]f'JUbi Uhi 'bUW\'HUbbU'=g`UbX']b'JUbi Uhi '[YZc[Yb" 6i W\Yb'G]Y': 'Ø[Y'ØVYf'G_mg\WUbbYf"'6Y]'XYf'5b_i bZh'hfUZYb'k]f K Yffmž'XYf'i bg'bUW\'Dcfh'FYgc'i h]cb'VfUW\hY"'?cbhU_h]YfYb'G]Y K Yffmi bhYf'k bUfi U4 [a U]`"\chica "

@cbY`m'D`UbYh'Gci h\`DUW]Z]WXYW_h'X]Y'\dgY``HUbbU']b'J Ubi Uhi 'UV\z\]XYU``Z\@f'X]Y'\b][Yb\z'X]Y'\gck c\``X]Y'\k]W\h][ghYb\GY\Ybgk \@fX][_Y]hYb'Yf_i bXYb'U`g'Ui W\`X]Y'\k Yb][Yf'VY\ZU\\fYbY\GhfU\rangle Y'bY\a Yb'a \OW\hYb"

@Y]hV]`X.~5h`Ug~/~6cchg

·

8 Y hl I]`c

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