

HÒX`]WXY'5b[f]ZZY.'&%'HchY'VY]'bYi Yf CZZYbg]jY'=gfUY`g']a'; UnUghfY]ZYb



; UnUghfY]ZYbžDU`Àgh]bU'!8]Y'@U[Y']a ; UnUghfY]ZYb'Yg_U`]Yfh k Y]hYf. =gfUY`]gWkY'5b[f]ZZY'\UVYb'YfbYi h'gWkkYfk]Y[YbXY JYf'i ghY'[YZcfXYfh"'@Ui h'XYf'dU'Àgh]bYbg]gWkYb BUWkf]WkhYbU[Ybhi f'K UZU'g]bX'gY]h'XYf'BUWkh'a]bXYghYbg'&% A YbgWkYb'i a g'@YVYb'[Y_ca a Yb"'8]YgY'5b[f]ZZY'_cbnYbhf]YfhYbg]Wk']bgVYgcbXYfY'fi bX'i a 'X]Y'GhÀXhY'7\Ub'\$b]g'i bX'FUZU\gck]Y']b'XYf'BÀ\Y'j cb'5'!A Uk Ug]'VY]'7\Ub'\$b]g"'8]Y'[Ya Y'XYhYbNU\Yb'g]bX'YXcWk'b]Wkhi bUV\Àb[]['@VYfdf@ZVUfž'i bX'Y]bYGhY`i b[bU\a Y'XYf']gfUY`]gWkYb'5fa YY'ghY\h'V]g`Ub['Ui g"'\D'XYbYbYhhYb'HU[Yb'g]bX'hÀ[`]Wk'8i hmYbXY'HchY'Ui g'XYa '?@ghYb[YV]Yh[Ya Y'XYh'k cfXYb"'\gfUY`\Uh'j cf'Y]bYf'K cWkY'Y]bY'bYi Y; fc»cZZYbg]j Y']a '; UnUghfY]ZYb'[YghUfhYhž'X]Y'Ui Wk'XYb'9]bgUhn j cb'6cXYbhfi ddYb'i a ZUgghi bX'U`g'HY]`Y]bYf'FYU_h]cb'Ui Z'Y]bYb

 $\label{eq:hoxing} $$\dot WXYb^HYffcfUb[f]ZZXYf^<Ua}$ Ug^[]^hz^VY]^XYa^aY^f^U^g^%($$=gfUY^]gWXY^6Øf[Yf^[YhOhYh^k_ifXYbz^*gc^HU[Yggd]Y[Y^*]^bX^8K"$

=bhYfbUh]cbU`Y`FYU_h]cbYb

 $8]Y]bhYfbUh]cbU`Y ; Ya Y]bgWkUZhfYU[]Yfhini bY\a YbX'Ui Z'X]Y ZcfhXUi YfbXYb 5b[f]ZZY"'Gc 'Ài » YfhY 'XUg '5i gk Àfh][Y '5a h ']b '6Yf`]b h]YZY '6Ygcf[b]g 'ØVYf 'X]Y 'a]`]hÀf]gWkYb '5_h]cbYb 'i bX 'XYfYb 5i gk]f_i b[Yb 'Ui Z'X]Y 'N]j]`VYj Ò`_Yfi b['i bX 'X]Y '; Y]gY`b" <math>=$ hU`]Yb ZcfXYfhY =gfUY`'Ui Zž'X]Y '5b[f]ZZY 'gcZcfh'ni 'ghcddYb"'I B! ; YbYfU`gY_fYhÀf '5bhÏ b]c'; i hYffYg'UddY``]YfhY 'VY]'Y]bYa ';]dZY` XYf '5fUV]gWkYb'@][U'Ub'U``Y 'DUfhY]Ybž'gcZcfh'Y]bYb K UZZYbgh]``ghUbX'Ui gni \UbXY`b"

8]Y'G]hi Uh]cb'\Uh']b'XYf']bhYfbUh]cbU`Yb'8]d`ca Uh]Y'Yf\YV`]WXY
5i gk]f_i b[Yb"'@\AbXYf'k]Y'\cfXUb]Yb'i bX'6U\fU]b'\UVYb'VYfY]hg
X]d`ca Uh]gWXY'6Yn]Y\i b[Yb'ni '=gfUY`'\Yfi bhYf[YZU\fYb"
\(\scfXUb)\fYb'nc['gY]\bYb'6chgWX\UZh\f'Ui g'=gfUY`'\UV\scfX\A\fYbX'6U\fU]b
X]Y'k]fhgWX\UZh`]WXYb'6Yn]Y\i b[Yb'ni '=gfUY`'Y]bghY``hY"'8]Yg
[YgWX]Y\h']b'Y]bYa '?cbhYl h\scfXYa 'j]Y`Y'FY[]Yfi b[Yb\scfX]
]bgVYgcbXYfY'Ui g'XYf'a i g`]a]gWXYb'K Y`h\scfXgWX\UfZY'?f]h]_'Ub'XYb
]gfUY`]gWXYb'A]`]h\dfU_h]cbYb'\@VYb\scfX\d\fYbX'X]Y'FYU_h]cbYb'Ui g
9i fcdU'i bX'BcfXUa Yf]_U'c\scfXha]`XYf'Ui g\scfX\fYb\scfX\langle Y'\x]Y'\scfX\langle Y'\x]Y'\x\scfX\langle Y'\x\langle Y'\x\lang

 $A \]h^*X]YgYb^*9bhk \]W_i b [Yb^*k \]fX^*X]Y^* \ i \ a \ Ub]hA^fY^*G]hi \ Uh]cb^*]a$

; UnUghfY]ZYb']a a Yf'_f]h]gW\Yf"'=gfUY`g'6`cW_UXY'XYf'9]bZ\\fijcbAYX]_Ua YbhYbž'@YVYbga]hhY`b'i bX'HfY]VghcZZ'gY]h'A Àfn'\Uh'X]Y6YX]b[i b[Yb'ZØf'X]Y'N]j]`VYj Ò`_Yfi b['VYfY]hg'XfUa Uh]gW\jYfgW\`YW\hYfh"'=bnk]gW\Yb'\UVYb'X]Y'JYf\UbX`i b[Yb'nk]gW\Yb=gfUY`i bX'XYf'<Ua Ug']b'?UhUfž'X]Y'U`g'`YhnhY'<cZZbi b['Ui Z'Y]bY9bhgdUbbi b['[Y`hYbž'V]g\Yf'_Y]bYb'8i fW\Vfi W\'Yfn]Y`h"

8 Y hU]`g	
J c f ZU``	HYffcf]ga i g
Cfh	; UnUghfY]ZYbž [·] DU`Àgh]bU
JYf`YhnhY	%\$\$
EiY``Yb	k k k "hU[Yggd]Y[Y`"XY
	• k k k "hU[YggW\Ui "XY
	• kkk"Xk"Wca

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