

FUh\Uig'BYighUXh.'K]W\h][Y GW\`]Y»ib[Yb']a '5i[igh'ibX'GYdhYa VYf &\$&(

8 UgʻF Uh\Ui gʻB Yi ghUXhʻ]ghʻj ca '&+"'5i [i ghʻV]gʻ) "'GYdhYa VYf &\$&('a Y\fZUW\'[YgW\`cggYb"'9fZU\fYbʻG]Y'a Y\fʻØVYf`X]Y GW\`]Y» i b[ghYfa]bY"

BYi ghUXh'ghY\h'j cf'Y]bYf'FY]\Y'UXa]b]ghfUh]j Yf'GW\`]Y»i b[Ybž'X]Y ZØf'X]Y'6Øf[Yf]bbYb'i bX'6Øf[Yf'XYg'CfhYg'Y]b][Y < YfUi gZcfXYfi b[Yb'a]h'g]W\'Vf]b[Yb'_ObbhYb"'Nk]gW\Yb'XYa'&+" 5i [i gh'i bX'XYa') "'GYdhYa VYf'&\$&('g]bX'a Y\fYfY'Ÿa hYf']a FUh\Ui g'Ui Z[fi bX'j cb'l f'Ui VgnY]hYb'i bX'Y]bYf'X]Ybgh`]W\Yb JYfUbghU`hi b['b]W\h'YffY]W\VUf"'8]Yg'VYhf]ZZh']bgVYgcbXYfY'XUg 9]bk c\bYfa Y`XYUa h'gck]Y'XUg'CfXbi b[gUa hž'X]Y'k À\fYbX X]YgYf'NY]h'9]bVi »Yb']b'XYf'9ffY]W\VUf_Y]h'\]bbY\a Yb'a ØggYb"

; Y[Ybk Àfh]['YfZc`[h'X]Y'JYf_ØbXi b['X]YgYf' & Zcfa Uh]cbYb'Xi fWX X]Y'GhUXhj Yfk U`hi b['BYi ghUXhž'X]Y']\fYf'DZ]W\h'bUW_ca a hž'X]Y 2 ZZYbh`]W_Y]h'ØVYf'X]Y'Y]b[YgW\fÀb_hYb'GYfj]WY!5b[YVchY'ni]bZcfa]YfYb"'9]b'Xi fW\Ui g'VYXYi hYbXYf'Di b_hž'XYbb'X]Y GW\`]Y» i b[Yb'Ybhn]Y\Yb'XYb'6Øf[Yfb'XYb'Ni [Ub['ni 'k]W\h][Yb 8]Ybgh`Y]ghi b[Yb"'8]Yg'_ObbhY'ZØf'Y]b][Y'VYgcbXYfg'i bUb[YbY\a gY]bž']bgVYgcbXYfY'ZØf'YbYž'X]Y'Y]bY'Xf]b[YbXY'9f`YX][i b[']a FU\a Yb'j cb'6Y\OfXYb[Àb[Yb'UbghfYVYb"

$K \]WX h][Y HYfa]bY]a VYfV]W_$

- 8 Ugʻ9]bk c\bYfa Y`XYUa hʻ]a 'F Uh\Ui gʻV`Y]VhʻUa '&+" 5i [i ghʻ&\$&('k Y[YbʻI f`Ui Vgʻ[YgW\`cggYb"
- 5a '&, "'5i [i gh'&\$&(']gh'XUg'[YgUa hY'FUh\Ui g'Ui Z[fi bX Y]bYf'X]Ybgh']W\Yb'JYfUbghU`hi b['b]W\h'[YÒZZbYh"

8 Ug 'C fXbi b[gUa h']gh'Ua '' "'i bX') "'GYdhYa VYf'&\$&(
i f'Ui VgVYX]b[h'b]W\h'YffY]W\VUf"

: Øf'U```YbYž'X]Y'b]W\h'Ui Z'Y]bY'gcZcfh][Y'9f`YX][ib['Ub[Yk]YgYbg]bXž'V`Y]Vh'XUg'FUh\Ui g'Ui »Yf\U`V'XYf'GW\`]Y»hU[Y'kY]hYf\]b
[Ya À» 'XYb'fY[i `ÀfYb'² ZZbi b[gnY]hYb'ni [Àb[`]W\"'8]YgY'g]bX
a cbhU[gž'a]hhk cW\gž'XcbbYfghU[g'i bX'ZfY]hU[g'j cb', "\$\$'V]g
%&"\$\$'I\f'gck]Y'X]YbghU[g'j cb'%("\$\$'V]g'%, "\$\$'I\f"'Ni XYa
_`ObbYb'HYfa]bY'Ui ggYf\U`V'X]YgYf'NY]hYb'bUW\'JYfY]bVUfi b[
ZYgh[Y`Y[h'kYfXYbž'kUg'Y]bYb'[Yk]ggYb'Gd]Y`fUi a 'V]YhYhž'i a
k]W\h][Y'5b`]Y[Yb'hfchnXYa 'nY]hbU\'ni '_`ÀfYb"

Ni gÀhn`]WXY'=bZcfa Uh]cbYb

 $8] Y \cdot GhUXhj \cdot Yfk \cdot U \cdot hi \cdot b[\cdot \setminus YVh \cdot \setminus Yfj \cdot cfž \cdot XUgg \cdot X] Y \cdot 5i \cdot ZfYW \cdot hYf \setminus U \cdot hi \cdot b[XYg \cdot GYfj \cdot]WYg \cdot ZØf \cdot X] Y \cdot 6Yj \cdot O \cdot _ Yfi \cdot b[\cdot ghYhg \cdot Y] b Y \cdot Df] cf] h Ah \cdot XUfghY \cdot `h'' C Vk \cdot c \setminus `X] Y \cdot GW \cdot `]Y \cdot i \cdot b[\cdot Yb \cdot hYa \cdot dcf Af \cdot g] b X ž \cdot]gh \cdot X] Y \cdot J \cdot Yf ZØ[\cdot VUf_Y] h j \cdot cb \cdot Yb \cdot hgW \cdot Y] XYb XYf \cdot 6Y XYi \cdot hi \cdot b[\cdot ZØf \cdot X] Y ; Ya \cdot Y] b gW \cdot UZh'' \cdot 8] Y \cdot 6Øf[\cdot Yf] b b Yb \cdot i \cdot b X \cdot 6Øf[\cdot Yf \cdot g] b X \cdot Ub[\cdot Y \setminus U \cdot hYb z X] YgY \cdot HUhgUW Y \cdot ni \cdot VYf Ø W_g] W \cdot h] [\cdot Yb \cdot i \cdot b X \cdot] \setminus fYb \cdot NY] h d \cdot Ub Yb hqd fY W X Yb X \cdot ni \cdot [\cdot YghU \cdot hYb''$

±b 'Y]bYf'ni bY\a YbX'X][]hU`]g]YfhYb'K Y`h'_ÒbbhY'X]Y
GhUXhj Yfk U`hi b['Ui W\X]Y'A Ò[`]W_Y]h']b'6YhfUW\h'n]Y\Ybž
X][]hU`Y'8]Ybgh`Y]ghi b[Yb'Ubni V]YhYb"'8]YgY'_ÒbbhYb']b'Ni _i bZh\Y`ZYbž'9b[dÀggY'kÀ\fYbX'GW\`]Y»nY]hYb'ni 'a]b]a]YfYb'i bX'XYb
6Øf[Yfb'a Y\f': `YI]V]`]hÀh'ni 'V]YhYb"'8][]hU`Y': cfa i `UfY'i bX
5bhfÀ[Y'_ÒbbhYb'Y]bY'9f`Y]W\hYfi b['XUfghY``Ybž'i a'8]b[Y'Ui W\

: Øf X]Y Yb][Ybž X]Y Yb[Yb ? cbhU_h ni 'Ÿa hYfb 'VYbÒh][Ybž []Vh Yg YVYb ZU``g X]Y A Ò[`]W _Y]hž j cfUV hY `Y Zcb]gW Y]bYb 'HYfa]b ni j YfY]bVUfYb" '5bfi ZY 'k À\fYbX 'XYf 'fY[i `ÀfYb '² ZZbi b[gnY]hYb _ÒbbYb '\Y`ZYbž i a 'X]fY_h a]h Y]bYa '5bgdfYW dUfhbYf ni gdfYW Yb i bX Y]b][Y 'XYf 'UbghY\YbXYb': fU[Yb 'cXYf '5b`]Y[Yb ']a J cfUi g 'ni '_`ÀfYb"

8]Y'j cfØVYf[Y\YbXYb'GW\`]Y»i b[Yb']a 'FUh\Ui g'BYi ghUXh
nY][Ybžk]Y'k]W\h]['Y]bY'gcf[ZÀ`h][Y'D`Ubi b['gY]hYbg'XYf'6Øf[Yf
]ghž'XYbb'gc'_ObbYb'I bUbbY\a `]W_Y]hYb'j Yfa]YXYb'k YfXYb"'9g
V`Y]Vh'UVni k UfhYbž'k Y`W\Y'ni _ØbZh][Yb'A U»bU\a Yb'X]Y
GhUXhj Yfk U`hi b[']b'9fk À[i b['n]Y\hž'i a 'XYb'GYfj]WY'Ui W\
k À\fYbX'gc`W\Yf'GW\`]Y»i b[gnY]hYb'Ui ZfYW\hni Yf\U`hYb'i bX'X]Y
6Øf[Yf'VYgha O[`]W\'ni 'i bhYfghØhnYb"

Ni gÀhn`]WX 'ni 'XYb'VYj cfghY\YbXYb'GWX`]Y*i b[Yb']gh'Yg'k]WXh][ž X]Y'6YXYi hi b['XYf'8]YbghY'XYf'GhUXhj Yfk U`hi b['ZØf'X]Y'6Øf[Yf\Yfj cfni\YVYb"'8]Y'GhUXhj Yfk U`hi b[']gh'ZØf'Y]bY'J]Y`nU\`'j cb 5i Z[UVYb'j YfUbhk cfh`]WXž'X]Y'XUg'hÀ[`]WXY'@YVYb'XYf'9]bk c\bYf VYhfYZZYb"'8Uni '[Y\ÒfYb'i bhYf'UbXYfYa 'X]Y'5i gghY``i b['j cb 5i gk Y]gXc_i a YbhYbž'X]Y'JYfk U`hi b['j cb'A Y`XYXUhYb'i bX'X]Y , VYfk UWXi b['XYf'ÒZZYbh`]WXYb'CfXbi b["

 $\pm 0. XYf' \setminus Yi h][Yb'NY]h'k]fX'Yg'ZØf'6Øf[Yf']a a Yf'k]Wkh][Yfž \\ \pm 0. Zcfa Uh]cbYb'ØVYf'X]Y'8]Ybgh'Y]ghi b[Yb'] \setminus fYf'GhUXhj Yfk U`hi b[gWkbY``i bX'Y]bZUWk'UVfi ZYb'ni '_ObbYb''8Uni 'nÀ\`h'Ui Wkž'k]Y'g]Yg]Wk']b'NY]hYb'j cb'GWk`]Y*i b[Yb'j Yf\U`hYb'gc``Yb''CZha U`g'_Ubb XUg' \DhYfbYh'Y]bY'k Yfhj c``Y'<]`ZY'gY]bž'i a '5bhk cfhYb'Ui Z'\Ài Z][Y:fU[Yb'ni 'Z]bXYb'cXYf'bchk YbX][Y'5bhfÀ[Y'cb`]bY'Y]bni fY]WkYb''$

8]Y'Fc``Y'XYf'GhUXhj Yfk U`hi b[']b'XYf ; Ya Y]bgWX UZh

8]Y'GhUXhj Yfk U`hi b[']gh'Y]b'nYbhfU`Yf'6YghUbXhY]`'XYf _ca a i bU`Yb'JYfk U`hi b['i bX'gcf[h'ZØf'X]Y'l a gYhni b[[YgYhn`]WXYf'Jcf[UVYb'gck]Y'X]Y'K U\fbY\a i b['ÒZZYbh`]WXYf 5i $Z[UVYb"8]YgY"HÅh][_Y]hYb"g]bX"b]WXh"bi f"UXa]b]ghfUh]j /g]Y hfU[Yb"Ui WX"U_h]j "ni f"@YVYbgei U`]hÅh"XYf"6Øf[Yf"VY]""8 Uni [Y\ÒfYb"Yhk U"X]Y"D`Ubi b["j cb"ÒZZYbh`]WXYb"JYfUbghU`hi b[Ybž"X]Y I bhYfghØhni b["j cb"Gdcfh!"i bX"?i `hi fdfc~Y_hYb"i bX"X]Y 6YfY]hghY``i b["j cb"<math>\pm$ DfUghfi _hi f"

6YgcbXYfg']b'NY]hYb'j cb'?f]gYb'cXYf'\YfUi gZcfXYfbXYb
G]hi Uh]cbYb'nY][h'g]WX'X]Y'J Yfk i bXVUf_Y]h'XYf
GhUXhj Yfk U`hi b[Yb'i bX'XYfYb'6YXYi hi b[']a '5``hU['XYf'6Øf[Yf"
Gc'ghY``hY'X]Y'7cfcbU!DUbXYa]Y'ZØf'j]Y`Y'?ca a i bYb'Y]bY'[fc»Y
<YfUi gZcfXYfi b['XUfž'XU'j]Y`Y'8]Ybgh`Y]ghi b[Yb'b]WXh'k]Y
[Yk c\bh'Ub[YVchYb'k YfXYb'_cbbhYb"'8][]hU`]g]Yfi b['i bX
5bdUggi b['XYf'5fVY]hgk Y]gY'k UfYb'bchk YbX][ži a 'k Y]hYf\]b'XYb
5bZcfXYfi b[Yb'XYf'6Øf[Yf'[YfYWXh'ni 'k YfXYb"

5 hYfbUh]j Yb ni f dYfgÒb]WX Yb J cfgdfUWX Y

; YfUXY'k À\fYbX'XYf'GW\`]Y» nY]hYb']gh'Yg'fUhgUa ž'g]W\'ØVYf
U`hYfbUh]j Y'A Ò[`]W_Y]hYb'XYf'?cbhU_hUi ZbU\a Y'ni ']bZcfa]YfYb"
9]bY'J]Y`nU\`'j cb'5bhfÀ[Yb'i bX'8]Ybgh`Y]ghi b[Yb'_ObbYb
a]hh`Yfk Y]`Y'cb`]bY'Yf`YX][h'k YfXYb"'8]YgYf'HfYbX'\]b'ni f
8][]hU`]g]Yfi b['k]fX'j cb'j]Y`Yb'GhUXhj Yfk U`hi b[Yb'U_h]j
i bhYfghØhnhži a 'XYb'6Øf[Yfb'XYb'Ni [Ub['ni 'k]W\h][Yb
\DZcfa Uh]cbYb'i bX'8]Ybgh`Y]ghi b[Yb'ni 'Yf`Y]W\hYfb"

9]b '6Ygi W\ 'XYf'YbhgdfYW\YbXYb'K YVgY]hY 'XYf'GhUXh'BYi ghUXh _Ubb']bZcfa Uh]j Y '9]bV`]W_Y ']b 'X]Y 'j YfgW\]YXYbYb '5b[YVchY [YVYb"'6Øf[Yfž'X]Y'b]W\h'dYfgÒb`]W\ ']a 'F Uh\Ui g'YfgW\Y]bYb _ObbYbž'gc``hYb'dfØZYbž'cV'Yg'X]Y'A O[`]W_Y]h'[]Vhž'5bZfU[YbhY`YZcb]gW\'cXYf'dYf'9!A U]''ni 'ghY``Yb"'8]YgY'5`hYfbUh]j Yb'\Y`ZYbž a O[`]W\Y'I bUbbY\a`]W_Y]hYb'k À\fYbX'XYf'GW\']Y>nY]hYb'ni j Yfa Y]XYb'i bX'X]Y'5b`]Y[Yb'XYf'6Øf[Yf'YZZY_h]j 'ni 'VYUfVY]hYb''

K]WX h][Y ? cbhU_h]b Zcfa Uh]cb Yb

 HY`YZcb]gWXY'9ffY]WXVUf_Y]h.'8]Y`nYbhfU`Yb HY`YZcbbi a a Yfb`g]bX`a Y]gh'Ui Z`XYf`cZZ]n]Y``Yb`K YVgY]hY XYf`GhUXh'ni 'Z]bXYb`i bX`V]YhYb`X]fY_hY`?cbhU_hY`ni 'XYb

- Yk Y]`][Yb Ÿa hYfb"
- 9!A U]`!?cbhU_h`, VYf`X]Y`GhUXhgY]hY`_ObbYb`a Y]gh`Ui WX
 5bZfU[Yb`dYf`9!A U]``Ub`X]Y`YbhgdfYWXYbXYb`5VhY]`i b[Yb
 [YgYbXYh`k YfXYb"
- Cb`]bY!8]YbghY.'J]Y`Y'5bhfÀ[Y'_ÒbbYb'ØVYf'X]Y'Cb`]bY!
 8]YbghY'XYf'GhUXhj Yfk U`hi b['Y]b[YfY]W\h'k YfXYb"'<]Yfni
 [Y\Òfh'VY]gd]Y`gk Y]gY'X]Y'6YUbhfU[i b['j cb
 A Y`XYVYgW\Y]b][i b[Yb'cXYf'X]Y'5ba Y`Xi b['Y]bYg
 K c\bg]hnYg"

8 YhU]`g

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