

/ `h/d/ [h// `h/ghfcb[/ [h// Ua d/ei ch/6Yb gi Wk h'Yb[U[]YfhY': Ua]`]Y.'< Øb XY`YVYb]a 'J c[Y`gVYf[_fY]g/ Ua d/ei ch// `h/#ghfcb [/ [h// `h/#d/ [h/

6YbžY]b``YfbZfYi X][Yf`GhfcVY`!A]I `Ui g`@Ui hYfVUW\ž`gi W\h Y]b`U_h]j Yg`Ni \Ui gYž`i a `gY]bY`: À\][_Y]hYb`Ui gni VUi Yb i bX`<i bXYYfZU\fi b[`ni `gUa a Y`b"

@Ui hYfVUW\ 'fk gŁ" = "VYgW\Ui `]W\Yb 'J c [Y`gVYf[_fY]gʻgi W\Yb 'j]Y`Y H]YfY 'bUW\ 'Y]bYa 'bYi Yb 'Ni \Ui gYž'Xc W\ 'Y]b' [Ubn'VYgcbXYfYf <i bX 'Z\A``h']bgʻ5i [Y. '6Ybž'Y]b'_f\AZh][Yf`F\ØXYž'XYf`b]W\h'bi f'Y]b bYi Yf`6Y[`Y]hYf`gY]b`a \oW hYž'gcbXYfb'Ui W\ 'X]Y`f]W\h][Y < YfUi gZcfXYfi b['VfUi W\h''5a '&&"'GYdhYa VYf`&\$&&'[YVcfYbž k i fXY'Yf'j cb'gY]bYb'V]g\Yf][Yb'6Yg]hnYfb'Ui Z[fi bX'gY]bYf'; f\O\D\Y i bX'gY]bYg`5_h]j]h\hgVYXUfZg`]b'X]Y'C V\i h'Y]bYg`H]Yf\Y]a g [Y[YVYb"'GY]b'BUa Y'_ \o bbhY'b]W\h'dUggYbXYf'gY]b/'6]['6Yb k\ØfXY']\a'YVYbZU``g`[i h'ghY\Yb"

9]b'<i bXž'XYf'[YZcfXYfh'k YfXYb'a ÒW hY

 $< \emptyset h Y h f] Y V " '9g '] g h 'k] W h h h | [ž 'X U g g 'Y f '] b 'Y] b Y a 'Ni \ Ui g Y '`Y V h ž 'k c 'Y f g c k c \ ``_ O f d Y f `] W U` g 'Ui W '[Y] g h h [[Y Z c f X Y f h 'k] f X " '9g 'Z Y \ `h '] \ a 'Ub [fi b X `Y [Y b X Y b '? Y b b h b] g g Y b ž 'X Y b b 'Y] b Y '< i b X Y g W i `Y 'g h Y \ h '[U b n c V Y b 'Ui Z 'g Y] b Y f 'H c ! 8 c ! @] g h Y "$

GY]b ZfYi bX`]WXYg'i bX`[i ha Øh][Yg'K YgYb'a UWXh']\b'ni 'Y]bYa
]XYU`Yb'? UbX]XUhYb ZØfY]b Yb[U[]YfhYg'< YffWXYb cXYf': fUi WXYbž
XUg'VYfY]h']ghž'NY]h'i bX'A Ø\Y']b 'gY]bY'5i gV]`Xi b['ni ']bj Ygh]YfYb"
6Ybg'@YfbVY[]YfXY']gh'\cWXž'i bX'Yf'nY][h'j]Y`': fYi XY'Ub
5_h]j]hÀhYbž'X]Y'gck c\`'gY]bY'?fUZh'U`g'Ui WX'gY]bY'5i gXUi Yf'Ui Z
X]Y'DfcVY'ghY``Yb"

8 c W 'b] W h'U ``Yg']gh'i bdfc V `Ya Uh]gW "'6 Ybg'J cf[YgW] W hY '\ Uh Gdi fYb'\]bhYf`UggYbž'X]Y'g]W ']b'Y]bYf'[Yk]ggYb'I bg]W Yf\Y]h Ài » Yfb"'9g']gh'k]W h][ž'XUgg'Yf'j cb'Y]bYf'YfZU\fYbYb'DYfgcb VYhfYi h'k]fXž'XUa]h'Yf'`YfbYb'_Ubbž'gY]b'GY`Vghj YfhfUi Yb'ni ghÀf_Yb"'=b'XYb'< ÀbXYb'Y]bYg'A YbgW Ybž'XYf'XUg'bÒh][Y'?bck!\ck'\Uhž'_ObbhY'6Yb'ni 'Y]bYa 'cdh]a U`Yb'DUfhbYf'\YfUbk UW gYb" 8 UVY]'_Ubb'Yf'b]W h'bi f']a '5``hU[ž'gcbXYfb'Ui W 'VY]'gdcfh`]W Yb 5_h]j]hÀhYb'[`ÀbnYb"

8]Y'9]bVYn]Y\i b['j cb'<i bXYgdcfh'cXYf'gc[Uf'X]Y'5i gV]`Xi b[
ni a 'FYhhi b[g\i bX'g]bX'ZØf'Y]bYb'<i bX'k]Y'6Yb'b]W\h'bi f
Ya dZY\`Ybgk Yfhž'gcbXYfb'Ui W\'bchk YbX]["'8]YgY'5_h]j]hÀhYb
V]YhYb']\a 'X]Y'A Ò[`]W_Y]hž'gY]bY': À\][_Y]hYb'ni 'nY][Yb'i bX
[`Y]W\nY]h]['k Yfhj c``Y'6]bXi b[Yb'ni 'gY]bYa 'bYi Yb'6Yg]hnYf
Ui Zni VUi Yb"I a 'X]YgYg'DchYbn]U`ni 'YbhZU`hYbž'VYXUfZ'Yg'YXcW\
Y]bYg'\c\Yb'9b[U[Ya Ybhg'gY]hYbg'gY]bYf'ni _ØbZh][Yb': Ua]`]Y"

Ni ibZh'a]h'JYfUbhk cfhib[

6Yb']gh'Y]b'6Y]gd]Y``XUZØfž'k]Y'k]W\h]['X]Y'f]W\h][Y'<ibXY\U`hi b[ibX'!UigV]`Xi b[']gh''8]Y'9bhgW\Y]Xi b[ž'Y]bYb'<ibX
Ui Zhi bY\a Ybž'gc``hY'b]Ya U`g'`Y]W\hZYfh]['[YhfcZZYb'kYfXYbž]bgVYgcbXYfY'kYbb'Yg'g]W\ia 'Y]bYb'5fVY]hg\ibX'\UbXY`hž'XYfj]Y`Y'5bZcfXYfi b[Yb'Ub'gY]bY'ni _ØbZh][Y': Ua]`]Y'ghY``h'''9]b@YVYkYgYb'k]Y'6Yb'VYbOh][h'b]W\h'bi f'jYfgW\]YXYbY

8]Y'Gi W\Y'bUW\'Y]bYa 'bYi Yb'Ni \Ui gY'ZØf'6Yb']gh'a Y\f'U`g'bi f
Y]b'Y]bZUW\Yf'5Xcdh]cbgdfcnYgg"'9g'[Y\h'XUfi a ž'XUg'f]W\h][Y
; `Y]W\[Yk]W\h'nk]gW\Yb'JYfUbhk cfhi b[ž'9b[U[Ya Ybh'i bX'@]YVY
ni 'Z]bXYb"'K Yf'g]W\'ZØf'6Yb'YbhgW\Y]XYhž'YfÒZZbYh'b]W\h'bi f
X]YgYa '`]YVYj c``Yb'F ØXYb'Y]bY'bYi Y'@YVYbgd\UgYž'gcbXYfb
_ca a h'Ui W\']b'XYb'; Ybi ggž'Y]bYb'`cmU`Yb'i bX'U_h]j Yb'6Y[`Y]hYf
ni '[Yk]bbYbž'XYf']a '; Y[Ybni ['j]Y``: fYi XY'i bX'9bYf[]Y']b'gY]b
bYi Yg'Ni \Ui gY'Vf]b[h"'

5_hi Y```]gh'6Yb']a 'H]Yf\Y]a '@Ui hYfVUW\'i bhYf[YVfUW\h'i bX k UfhYh'XUfUi Zž'j cb'Ya UbXYa 'YbhXYW_h'ni 'k YfXYbž'XYf'gY]b DchYbn]U``Yf_Ybbh'i bX'VYfY]h']ghž']\b'Ui Z'gY]bYa 'K Y['ni VY[`Y]hYb"'K Yf' \$\Delta hYfYggY'\Uhž'_Ubb'g]W\'[YfbY'X]fY_h'Ub'XUg H]Yf\Y]a 'k YbXYb"'9g']gh'Y]bY'9bhgW\Y]Xi b[ž'X]Y'gck c\``ZØf'XYb bYi Yb'6Yg]hnYf'U`g'Ui W\'ZØf'6Yb'j cb'i bgW\AhnVUfYa 'K Yfh'gY]b _\ObbhY"

6Yb 'VYb Oh][h'Y]bY 'VYgcbXYfY': OfXYfi b[ž'XUa]h'Yf'gY]b'j c``Yg
DchYbn]U`'YbhZU`hYb'_Ubb"'GY]bY'j cfUb[Y[Ub[YbY'9fZU\fi b[Yb
XYi hYb 'XUfUi Z'\]bž'XUgg'Y]bY'j YfUbhk cfhi b[gj c``Y'i bX
Yb[U[]YfhY'<U`hi b['ZØf']\b'j cb'YbhgW\Y]XYbXYf'6YXYi hi b[']gh"
J]Y`Y'<i bXYž'VYgcbXYfg'gc`W\Yž'X]Y'i fgdfØb[`]W\'U`g
5fVY]hg\i bXY'[YnØW\hYh'k i fXYbž'VYbOh][Yb'Y]bY'ghfi _hi f]YfhY
I a [YVi b[ž']b'XYf'g]Y'_OfdYf`]W\'i bX'[Y]gh]['Ui g[Y`UghYh'k YfXYb"

8 Yf']XYU'Y'@YVYbgfUi a 'ZØf'6Yb'k ÀfY'Y]bY'`ÀbX`]W\Y'cXYf
j cfghÀXh]gW\Y'I a [YVi b['a]h'Ui gfY]W\YbX'D`Uhn'i bX
A Ò[`]W_Y]hYb'ZØf'6Yk Y[i b["'9]b][Y'9I dYfhYb'Ya dZY\`Ybž'XUgg
U_h]j Y'<i bXYfUggYb'k]Y'6Yb'Xi fW\'fY[Y`a À»][Yg'HfU]b]b['gck]Y
Xi fW\'5_h]j]hÀhYbž'X]Y']\fYb'bUhØf`]W\Yb'=bgh]b_hYb'YbhgdfYW\Ybž
[YZcfXYfh'i bX'[YZÒfXYfh'k YfXYb'gc``hYb"'6Y]gd]Y`gk Y]gY'_ObbYb
<i bXYž'X]Y'ni a '<ØhYb'[YnØW\hYh'k i fXYbž'Xi fW\'gdYn]Y``Y'5[]`]hml
HfU]b]b[g'cXYf'X]Y'HY]`bU\aY'Ub'GW\i hn!'i bX'FYhhi b[g\i bXY!
Dfc[fUa a Yb'gh]a i `]Yfh'k YfXYb"'Gc`W\Y'Dfc[fUa a Y'V]YhYb'b]W\h
bi f'_OfdYf`]W\Y'6YhÀh][i b[ž'gcbXYfb'Ui W\'X]Y'A Ò[`]W_Y]hž'Y]bY
Yb[Y'6]bXi b['nk]gW\Yb'<i bX'i bX'<U`hYf'Ui Zni VUi Yb"

<i bXYhfU]b]b[g'g]bX'j cb'YbhgWXY]XYbXYf'6YXYi hi b[ži a 'XUg
J Yf\U'hYb'i bX'X]Y'gcn]U'Yb': À\][_Y]hYb'Y]bYg'<i bXYg'ni
Ybhk]W_Y'b"'9g'[]Vh'j YfgWX]YXYbY'A Yh\cXYbž'X]Y'g]WX'U'g'k]f_gUa
Yfk]YgYb'\UVYbži a '<i bXYb'k]Y'6Yb'X]Y'bchk YbX][Y'9fn]Y\i b[
ni 'V]YhYb"'Dcg]h]j Y'J YfghÀf_i b[']gh'Y]bY'XYf'VY`]YVhYghYb'i bX
YZZY_h]j ghYb'A Yh\cXYbž'VY]'XYf'XUg'[Yk ØbgWXhY'J Yf\U'hYb'Xi fWX
6Y'c\bi b[Yb'[YZÒfXYfh'k]fX"'HfU]b]b[gY]b\Y]hYb'gc'`hYb'ZØf'6Yb
gck c\`'[Y]gh]['U`g'Ui WX'_OfdYf`]WX'UbgdfYWXYbX'[YghU`hYh'gY]bž
i a 'gY]bY'5i Za Yf_gUa _Y]hgZÀ\][_Y]h'i bX'@YfbZfYi XY'ni
a UI]a]YfYb"</pre>

± XYfFY[]cb @Ui hYfVUW []VhYg a Y\fYfY H]Yf\Y]a Y i bX <i bXYgWi YbžX]Y gdYn]Y `Y Dfc[fUa a Y UbV]YhYbži a '<i bXYb k]Y 6Yb ni '\Y ZYb" 8]YgY Dfc[fUa a Y _ObbYb j cb Y]bZUW Yb ; Y\cfgUa ghfU]b]b['V]g ni '_ca d `Yl YfYb : À\][_Y]hYb fY]W Ybž X]Y ZØf X]Y F Yhhi b[g\i bXYUfVY]h bchk YbX]['g]bX" Gc `WXY 5_h]j]hÀhYb Yf\O\Yb 'b]W h bi f X]Y @YVYbgei U`]hÀh XYg '<i bXYgž gcbXYfb _ObbYb 'Ui W XUg K c\`VYZ]bXYb i bX 'X]Y 'Ni Zf]YXYb\Y]h XYg < U`hYfg ghY][Yfb"

. . . $^{\text{A}}$ O[^{A} JWM_{A}] hY b $^{\text{A}}$ XYf $^{\text{A}}$ 5 X c d h] c b $^{\text{A}}$ i b X $^{\text{A}}$: Of XYf i b [

8]Y 5Xcdh]cb Y]bYg'<i bXYg'Vf]b[h'nU\`fY]W\Y'< YfUi gZcfXYfi b[Yb a]h'g]W\žij cf'U``Ya ž'k Ybb Yg'i a 'U_h]j Y'F UggYb'k]Y '6Yb'[Y\h'' 8 Ug'H]Yf\Y]a '_Ubb'a Ò[`]W\Y'5Xcdh]j ZUa]`]Yb'VYfUhYb'i bX i bhYfghØhnYbžii a 'g]W\Yfni ghY``Ybž'XUgg'XYb'<i bXYb'X]Y cdh]a U`Yb'@YVYbgVYX]b[i b[Yb'[YVchYb'k YfXYb''`Gc'_ÒbbhYb dchYbn]Y``Y'<U`hYf'VY]gd]Y`gk Y]gY'Ub'K cf_g\cdg'cXYf

\DZcfa Uh]cbgj YfUbghU`hi b[Yb'hY]`bY\a Ybž'X]Y'g]W\'a]h'XYf'DZY[Yi bX'9fn]Y\i b['j cb'5fVY]hg\i bXYb'VYZUggYb''

8]Y; Ya Y]bgWXUZhigd]Y`hiY]bY'YbhgWXY]XYbXY'Fc``Y'VY]'XYf I bhYfghØhni b['j cb'H]Yf\Y]a Ybži]bXYa 'g]Y'VY]gd]Y`gk Y]gY GdYbXYbU_h]cbYb'cf[Ub]g]YfhicXYf'`c_U`Y'<i bXYj YfY]bY'V]`XYh'' 8]YgY'_ÒbbYb'XUni 'VY]hfU[Ybž'XUgg'<i bXY'k]Y'6Yb'X]Y bchk YbX][Y'5i gV]`Xi b['i bX'6Yk Y[i b['Yf\U`hYbž'X]Y'g]Y VYbÒh][Ybžia 'Y]b 'YfZØ``hYg '@YVYb 'ni 'ZØ\fYb" '9g ']gh 'k]W\h][ž 'XUgg X]Y 'A YbgW\Yb 'k]ggYbž 'k]Y 'g]Y 'gck c\` 'XYb 'H]YfYb 'U`g 'Ui W\ 'XYb 9]bf]W\hi b[Ybž 'X]Y 'g]W\ i a 'g]Y '_Øa a Yfbž '\Y`ZYb '_ÒbbYb" '

8 i fW. 'X]Y '6Ya Ø\ i b[Yb 'XYf'; Ya Y]bgW. UZh'_ÒbbYb 'b]W. h'bi f < i bXY 'k]Y '6Yb'j cb 'XYf' ₺ hY[fUh]cb']b'`]YVYj c``Y': Ua]`]Yb dfcZ]h]YfYbž'gcbXYfb'Ui W. 'À`hYfY'i bX'k Yb][Yf'VY`]YVhY'F UggYbž X]Y '\Ài Z]['ØVYfgY\Yb'k YfXYb"'

9]b 'gc `W. Yf' [Ya Y]bgW. UZh`]W. Yf' 5 bgUhn'\]`Zhž'X]Y'? `i Zh'nk]gW. Yb A YbgW. 'i bX'H]Yf'ni 'ØVYfVfØW_Yb'i bX'ZÒfXYfh'Y]b'VYggYfYg J YfghÀbXb]g'i bX'Y]bY'ghÀf_YfY'GYbg]V]`]g]Yfi b['ZØf'X]Y 6YXØfZb]qqY'i cb'H]YfYbž'X]Y'Y]b'bYi Yq'Ni \Ui qY'gi W.Yb"

8 Y hU]`q

6 Ygi WX Yb 'G]Y 'i bg 'Ui Z. 'b!U["XY