

A]b] Nk]W_Ui 'ÒZZbYh'gY]bY'DZcfhYb. 5VYbhYi Yf'ZØf'?]bXYf'ghUfhYh°

8]Y'?]bXYfgd]Y`ghUXh` A]b]`Nk]W_Ui `YfÒZZbYh`Ua `'\$"'¾b] &\$&)`]b`XYf`DYghU`cnn]gW\i`Yž`a]h`gdUbbYbXYb`5_h]j]hÀhYb ZØf'?]bXYf"



DYghU`cnn]gWi`Yž\$, \$), Nk]W_Ui ž8Yi hgW `UbX`! \diraction XYf _ca a YbXYb`K cWXY`k]fX`X]Y`DYghU`cnn]gWi`Y`]b`Nk]W_Ui ini a GWUi d`Uhn`Y]bYg`Ui ZfY[YbXYb`5VYbhYi Yfg` X]Y`Gd]Y`ghUXh` A]b] Nk]W_Ui `OZZbYh`Ua `A cbhU[`]\fY`DZcfhYb`8]Y`JYfUbghU`hi b[žX]Y j ca ``\$"'\diraction b]`V]g`%\"'\diraction \diraction \diractio

9]b 'VYgcbXYfYg'<][\`][\h'XYf'X]Yg'\A\f][Yb'5i g[UVY'g]bX'X]Y bYi Yb'5b[YVchY \dot{z} 'X]Y'?]bXYf'Ub\cW_Yb'gc\`Yb"'BYVYb

U`hVYk À\fhYb`±gh]hi h]cbYb`k]Y`XYf`GdUf_UggY`i bX`XYf`6ÀW_YfY]

XØfZYb`X]Y`^\ b[Yb`6Øf[Yf`]b`X]YgYa `*J\f`Ui W\`XUg

GhUXha UbU[Ya YbhžY]bY`Dc`]nY]k UW\Y`gck]Y`Y]b`?fUb_Yb\Ui g`]b

]\f`Gd]Y``]bhY[f]YfYb"`8 Ug`9b[U[Ya Ybh`]gh`XUVY]`b]W\h`bi f`Ui Z`XUg

Gd]Y`Yb`VYgW\fÀb_h` `X]Y`?]Xg`\UVYb`Ui W\`X]Y`A Ò[`]W_Y]hžY]bYb

@]b]YbVi g`XYf`GJ N`ni `VYa U`YbžXYf`UbgW\`]Y» YbX`Xi fW\`Nk]W_Ui

ZU\fYb`k]fX"

Cf[Ub]gUhcf]gWXY'8YhU]`g'i bX'5ba Y`Xi b[

8]Y J cfVYfY]hi b[Yb ZØf XUg 9j Ybh Yi ZYb VYfY]hg Ui Z < cW hci fYb" K]f g]b X VYghf Y hz gck c \ `XYb cf[Ub]gUhcf]gW Yb F U\a Yb U g Ui W X]Y 5_h]j]h h h Yb ZØf X]Y ?]b XYf cd h]a U `ni [YghU h Yb z gc X]Y J Yf UbghU h Yf "8]Y 5 ba Y XYa O[`]W _Y]h Yb g]b X j]Y ZA h][i b X Yfghf Y W Yb g]W Ø V Yf a Y\f Yf Y _ca a i b U Y 3 [Yb XY]bf]W hi b [Yb z XUfi b h Yf X Ug ?]b X yf! i b X 3 [Yb X Zf Y]n Y]h n Yb h fi a 7]h m Dc]b h ii b X X Yf 3 [Yb X Wi V 5]f d cfh "5 ba Y `XYg W `i gg k Uf Ua & * " 3 b] & \$ &) z k c V Y] Y]b Y J cf! C fh! 5 ba Y `Xi b []b X Yf Gd]Y `gh U Xh bi f V Y] F Yghd `Ahn Yb a O[`]W]gh " 8]Yg [] `h V Ygcb X Yfg `b U X Y]b Ya d Yfgcb Y `Yb 9 b [d Ugg `]a ?]b X Yf! i b X 3 [Yb X W ZÅ 5 h Ub h]g `k Uf X]Y 5 ba Y `Xi b [V]g ni a & & \$ " 3 b] & \$ &) `b] W ha O[`]W "

8]Y'Gd]Y`ghUXh' A]b]'Nk]W_Ui ']gh'b]W\h'bi f'Y]bY'_fYUh]j Y'6i XY'ZØf X]Y'?]Xgž'gcbXYfb'Ui W\'Y]bY'D`UhhZcfa ži a 'k]W\h][Y'K YfhY'k]Y HYUa UfVY]h'i bX'J YfUbhk cfhi b['ni 'ZÒfXYfb"'8U\Yf'g]bX'Ui W\
_`Y]bY'K Yhh_Àa dZY'a]h'Gd]Y`Yfb'XYg': GJ'i bX'Y]b'K cW\Yba Uf_h
[Yd`Ubhž'k Ug'ZØf'ni gÀhn`]W\Y'5Vk YW\g`i b['gcf[h"'9g'g]bX'X]Y
_`Y]bYb'8]b[Yž'X]Y'XUg'9j Ybh'Y]bn][Ufh]['a UW\Yb'

9]b 6`]W_]b X]Y Ni _i b Zh XYf ?]b XYf gd]Y `ghUXh

9]b']bhYfYggUbhYg'8YhU]`ni f'; YgWX]WXhY'X]YgYf'Gd]Y`ghÀXhY.'8Yf
5i ghUi gWX'j cb'9fZU\fi b[Yb'i bX'X]Y'@Ògi b['dfU_h]gWXYf
DfcV`Ya Y'Xi fWX'Y]b'BYhnk Yf_'j cb'J YfUbghU`hYfb'j cb
?]bXYfgd]Y`ghÀXhYb'g]bX'[fi bX`Y[YbXY'9`Ya YbhY']\fYf
9bhk]W_`i b["', VYf'Y]bY'Y][Ybg'XUZØf'Y]b[Yf]WXhYhY'\DhYfbYhgY]hY
k]fX'XUg'?cbnYdh'XYf'?]bXYfgd]Y`ghÀXhY'VY_Ubbh'[Ya UWXh'i bX
\Data Zcfa Uh]cbYb'a Y\fqdfUWX]['VYfY]h[YghY``h''\DhYf'\hyWX`UbX'[]Vh

 $Yg`VYfY]hg`YfZc`[fY]WXY`6Y]gd]Y`Y`k]Y`A]b]!A \emptysetbWXYb`ibX`A]b]!\\ GU`nVif[ž`X]Y`U`g`=bgd]fUh]cb`ZØf`X]Y`Gd]Y`ghUXh`]b`Nk]W_Ui`X]YbYb_\ObbhYb''$

8 UfØVYf`\]bUi g`V`Y]Vh`XYf`GdYbXYbVi hhcb'j cb` VYhhYfd`UWY"cf[U_h]j ži a `X]Y`Z]bUbn]Y``Y`I bhYfghØhni b[`ZØf`X]Y`X]Yg^À\f][Y J YfUbghU`hi b[`ni `g]W\Yfb"'@YhnhYg`\$J\f'_cbbhY`X]Y`ØVYf`XUg \DhYfbYh`[YgUa a Y`hY`: ÒfXYfi b[`YfZc`[fY]W\ [Ybi hnh`k YfXYbži a XUg`9j Ybh`ni `VYfY]W\Yfb"

8 Y hU]`g	
Cfh	DYghU`cnn]gWXi `Yž'\$,\$), 'Nk]W_Uiž
	8 Yi hgWX`UbX
EiY``Yb	• k k k "fUX]cnk]W_Ui "XY
	• a]b]nk]W_Ui "^]a XcZfYY"Wca
	k k k "_]bXYfgd]Y`ghUYXhY"Wca

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