

5 b ZU\fh'ni a '7 fUX`Y'A ci b hU]b 'fl7 fUX`Y A ci b hU]b 'Gh"'7`U]f B Uh]c b U`DUf_Ł

9]b j c``ghÀbX][Yf'FY]gYZØ\fYfž'XYf'HUga Ub]Yb!6Ygi W\Yfb XUVY]\]`ZhžX]Y VYghYb A O[`]W_Y]hYb ni YbhXYW_Ybž'k]Y a Ub ni a '7fUX`Y A ci bhU]b _ca a h"'9bh\A`hX]Y VYghYb Cdh]cbYb a]h'H]ddgži a 'XUg'6YghY'Ui g'XYa '9f`YVb]g']b 7fUX`Y '7ci bhfmni a UW\Yb": Øf'X]Y Yb][Ybž'X]Y'HUga Ub]Yb VYgi W\Ybž']W\V]b a]f'g]W\Yfž'XUgg'Yg'\Leq bYb 'VYfY]hg'[YgU[h k i fXY' '7fUX`Y'A ci bhU]b']gh'Y]b'A i gg*'\Leq X]YgYf'_i fnYb 5b`Y]hi b['k YfXY']W\'U``Yg'VYgW\fY]VYbž'k Ug'G]Y'k]ggYb a ØggYbži a 'bUW\'7fUX`Y'A ci bhU]b'ni '[Y`Ub[Yb"\Leq W\ k YfXY]a '8YhU]``Ui Z'X]Y'XfY]'< Ui dhcdh]cbYb'Y]b[Y\Ybž'i a 'Xcfh\]b ni '[Y`Ub[Ybž'a]h'H]ddgž'X]Y'\Leq bYb'\Y'ZYbž'XUg'6YghY'Ui g X]YgYf'9fZU\fi b['ni 'a UW\Yb"'U`h1 / Ua d/, &&\K CA 65H / Ua d\Y\``]d/

9]b j c``ghÀbX][Yf'FY]gYZØ\fYfž'XYf'HUga Ub]Yb!6Ygi WXYfb'XUVY]\]`Zhž'X]Y'VYghYb'A Ò[`]WX_Y]hYb'ni 'YbhXYW_Ybž'k]Y'a Ub'ni a 7fUX`Y'A ci bhU]b'_ca a h"'9bh\À`h'X]Y'VYghYb'Cdh]cbYb'a]h'H]ddgžia 'XUg'6YghY'Ui g'XYa '9f`YVb]g']b'7fUX`Y'7ci bhfm'ni 'a UWXYb"'

: Øf:X]Y Yb][Ybž:X]Y 'HUga Ub]Yb 'VYgi WX Ybž:]WX 'V]b 'a]f'g]WX Yfž:XUgg
Yg'=\bYb 'VYfY]hg'[YgU[h'k i fXY' '7fUX`Y 'A ci bhU]b']gh'Y]b 'A i gg'' +b
X]YgYf'_i fnYb '5b`Y]hi b['k YfXY']WX 'U``Yg 'VYgWX fY]VYbž'k Ug'G]Y
k]ggYb 'a ØggYbž'i a 'bUWX '7fUX`Y 'A ci bhU]b 'ni '[Y`Ub[Yb"' +\WX
k YfXY']a '8YhU]`'Ui Z'X]Y 'XfY]' < Ui dhcdh]cbYb 'Y]b[Y\Ybž'i a
Xcfh\]b 'ni '[Y`Ub[Ybž'a]h'H]ddgž'X]Y '=\bYb'\Y`ZYbž'XUg'6YghY'Ui g
X]YgYf'9fZU\fi b['ni 'a UWXYb"</pre>

'U'h1 K CA 65H B 'H5GA 5B 9B 2 U'h1 7F 58 @9 'A CI B H5 B 'K 5B 8 9F K 9; 9 2 U'h1 7F 58 @9 'A CI B H5 B 'H5I 6 9B G 99 2

VYf 7fUX Y A ci bhU]b

K Ybb'A YbgW.Yb'j cb'7fUX`Y'A ci bhU]b'gdfYW.YbžVYn]Y\Yb'g]Y g]W.'Ui Z'XYb'7fUX`Y'A ci bhU]b''@U_Y'Gh'7`U]f'BUh]cbU`'DUf_"'8Yf < Ui dhY]b[Ub['ni a 'DUf_'VYZ]bXYh'g]W.']a 'BcfXYb'j cb'HUga Ub]Yb i bX'Yg'[]Vh'Y]b'[fc»Ygž'gdYn]Y``Yg'6Ygi W.YfnYbhfi a ž'XUg'U`g 5i g[Ub[gdi b_h'ZØf'X]Y'9f_i bXi b['XYg'DUf_g'X]Ybh''

±b 'X]YgYa 'ni a 'K Y`h_i `hi fYfVY'[Y\ÒfYbXYb'DUf_'[]Vh'Yg'j]Y``ni hi b 'i b X 'ni 'gY\Yb ž'a]h'[fc » Ufh][Yb '_i fnYb'GdUn]Yf[Àb[Yb'V]g'\]b ni 'Yd]gW\Yb'+!hÀ[][Yb'HfUa dg'Ui Z'XYa 'Cj Yf`UbX'HfUW_"

8 Y f'_b]ZZ][Y'HY]`ž'i a 'Xcfh\]b'ni '[Y`Ub[Ybž'VYghY\h'XUf]bž'Y]bYb K Y['ni a '6 Y gi W\YfnYbhfi a 'ni 'Z]bXYb"'5i Z'X]YgY'[Y\Y']W\'k Y]hYf i bhYb'bÀ\Yf'Y]b"

 $\label{lem:continuous} $$Jcf'Cfh'bi\ hnYb'X]Y'a\ Y]ghYb';\ AghY'XYb'_cghYb`cgYb'G\i\ hh`YVi\ g$$ fl]a\ 'BUh]cbU`dUf_!H]W_Yh']b_`i\ X]YfhŁž'i\ a\ 'ni\ 'XYb'j\ YfgWX]YXYbYb$$ <][\`][\ hg'ni '[Y`Ub[Yb''8]Yg'VY[fYbnh'X]Y'5bnU\`'XYf': U\fnYi [YžX]Y'Ui\ Z'XYb'Yb[Yb'GhfU) Yb']bbYf\U`V'XYg'DUf_g'ZU\fYb''$$$

8 Y f 'G\i hh`YgYfj]WY 'j Y f_Y\fh'g]Y V Y b 'HU[Y 'X]Y 'K c W\Yž'UVYf 'G]Y a ØggY b '⇒ fY': U\fhYb'd`UbYbž'XU'g]Y 'bi f'hU[gØVYf'j Y f_Y\fYb"

8 Yb_Yb^G]Y `XUfUbž`XUgg^G]Y `Y]bYb^HUga Ub]Ub^DUf_g^DUgg VYbOh][Ybži a `BUh]cbU`dUf_g^]b^HUga Ub]Yb^ni `VYhfYhYb" 8]Y ? cghYb `ZØf^7fUX`Y^A ci bhU]b^g]bX`a]h^&) `I G8 `dfc^DYfgcb^f&(Ghi bXYb&cXYf^(\$^I G8 `dfc^5i hc^fV]g^ni `, `DYfgcbYb&\O\Yf^U`g^]b XYb^UbXYfYb^DUf_g"^9g^]gh^YXcW\cZh^[Øbgh][Yfž'bi f^Y]bY^: Yf]Yb! cXYf^\J\ fYg_UfhY^ni `_Ui ZYbž'k Ybb^G]Y^Yhk Ug^a Y\f^NY]h^]b^XYb BUh]cbU`dUf_g^]b^HUgg]Y^j YfVf]b[Yb^a OW\hYb"

K Y]hYfY * DZcfa Uh]cbYb Z]bXYb G]Y Ui Z'XYf DUf_dUgg!GY]hY "
U`h1 H5I 69B!G99!K 5; 9B!69F; 2

 $< Yfj \ cf[\ Y\ cVYb\]b.\ : \ UbhUgh]gWXY\ 5_h]j \]hAhYb\]b\ HUga\ Ub]Yb$

K]Y _ca a h a Ub ni a '7fUX Y A ci bhU]b3

 $a : c [YbXYb g]bX X]Y XfY] A O[`]WX_Y]hYb Ui Z[YZØ\fhžk]Y G]Y ni a <math>.7 fUX Y A ci bhU]b [Y Ub[Yb" 8 Uni [Y OfYb XUg Y][YbY : U fYbž X]Y 6 i W i b[Y]b Yg G i hh YV i gg Yg c XYf Hf Ubgdc fhg c XYf X]Y 6 i W i b[Y]b Yg d f] UhYb <math>.7 \UfhYfg$ "

$Cdh]cb\% GY`VghZU\fYf$

8]Y 'VY]'k Y]hYa 'VYghY'5fhž'HUga Ub]Yb'ni 'Yf_i bXYb'i bX'g]W\
Zcfhni VYk Y[Ybž']ghž'\defiy][YbYg'5i hc'a]hni Vf]b[Yb'cXYf'Y]bYg'ni
a]YhYb"'K Ybb'G]Y'j ca': Ygh`UbX'_ca a Ybž']gh'Yg'cZh'[Øbgh][Yfž'\defini 'k' c\bacv]`'Ub'6cfX'XYf'Gd]f]h'cZ'HUga Ub]U!: À\fY'bUW\
8Y|cbdcfh'ni 'Vi W\Yb"

K Yf'_Y]b'Y][YbYg'5i hc \Uhž'k]fX'Y]bYb'GW\cW_'Yf`YVYb"'8]Y
A]Yhk U[YbdfY]gY']b'HUga Ub]Yb'[Y\ÔfYb'ni 'XYb'\ÒW\ghYb'XYg
@UbXYg°'8U\Yf'Ya dZY\`Y']W\'Xf]b[YbXž'U``Y'A]Yhk U[YbZ]fa Yb
ØVYf'X]Y'K YVg]hY'FYbhU`7Ufg"Wca 'ni 'j Yf[`Y]W\Yb"'8]Yg'j Yf[`Y]W\h
5b[YVchY'À\b`]W\'k]Y'G_mGWUbbYfž'i a '⇒bYb'ni '\Y`ZYbž'[i hY
5b[YVchY'ni 'Z]bXYb"

5 bgc bghY b ž'k Y b b 'G]Y 'Y]b : Ub 'XYf'G\Uf]b['9Wc b ca m'g]b X 'i b X 'Y]b dUUf'8 c ``Uf'gdUfYb 'a OW hY b ž'gW\Ui Y b 'G]Y 'g]W\'7 UfB Y I h8 c c f 'Ub fJ Y fk Y b X Y b 'G]Y 'a Y]b Y b '@]b_ 'ZØf'%) '` 'F UV Uhh'Ui Z' \(\) fY 'Y fghY 6 i W\\ i b[\(\) \(\) '5 `hY fb Uh]j 'V]Y hY b 'Gd U W G\\]dg'[\(Øbgh)[\(Y \) z' ni j Y f`\(Agg)[\(Y \) K \(C \) ba c V]`Y 'Ub z'j c b 'X Y b Y b ']W\' d Y fgOb`]W\'Y]b '[\(fc \) Y f': Ub 'V]b"

GcVU`X'G]Y'\YfUi g[YZi bXYb'\UVYbž'k]Y'G]Y'\fVb'Y][YbYb FUXgUhn'VY_ca a Ybž'a ØggYb'G]Y'ni a '7fUX`Y'A ci bhU]b'J]g]hcf 7YbhfY'[Y\Yb"8]Yg']gh'XYf'<Ui dhdUf_d`Uhn'XYg'BUh]cbU`dUf_g" 6YUW\hYb'G]Yž'XUgg'Yg'_Y]bY'JYfV]bXi b[gghfU\gamma'y'j ca 'bÒfX`]W\Yb i bX'gØX`]W\Yb'9bXY'XYg'DUf_g'[]Vh'i bX'i a '\]Yf\Yf'ni '[Y`Ub[Ybž a ØggYb'G]Y'j cb'BcfXYb'\Yf'\]bY]bZU\fYb"

; fi bXgÀhn`]WX 'gc``hYb'G]Y'X]Y'7fUX`Y'A ci bhU]b'FcUX'\]bUi ZZU\fYb fbi f'j ca 'BcfXYb'HUga Ub]Ybg'Ui g'YffY]WXVUfŁ"'9fk UfhYb'G]Y'Y]bY %ž) !ghØbX][Y': U\fh'j cb'8Yj cbdcfh'i bX'Y]bY'&ž) !ghØbX][Y': U\fh j cb'@Ui bWYghcb'ØVYf'G\YZZ]Y`X"'BY\a Yb'G]Y'j cb'G\YZZ]Y`X''Ui g X]Y'7%' *'i bX'7%' &'ni a '6Ygi WXYfnYbhfi a "

8]YgY'GhfU» Y']gh'bchcf]gW\'_i fj YbfY]W\'i bX'_Ubb']b'XYb K]bhYfa cbUhYb'XYZ]b]h]j 'j YfY]gh'gY]b"'8]Y'Fci hY']gh'YXcW\ Xi fW\[Y\YbX'Ugd\U`h]Yfhz'gcXUgg'g]Y'VY]'gW\ÒbYa 'K YhhYf'ZØf'X]Y a Y]ghYb'fY]bgW\`]Y»`]W\'7Ua dYfŁ'_Y]bY'U``ni '[fc»Yb'DfcV`Ya Y XUfghY``Yb'gc``hY" I bhYb \\UVY \]W\ \XYb \[YbUi Yb \GhUb Xcfh \Ub [Y\ YZhYh \i i b X \ \YXY Fci h]b \[!5dd \Vf]b \[h \G]Y \\dfc V \Ya \\cg \\]Yf\ Yf''

Cdh]cb & . 6i W Y b G | Y Y] b Y b G \ i hh Y

K À\fYbX'Y]b'Y][YbYg'5i hc']b'HUga Ub]Yb'XYZ]b]h]j'XYf'f]WXh][Y K Y[']ghž'_ÒbbYb'X]Y'Yb][Ybž'X]Y'bi f'Y]bYb'_i fnYb'6Ygi WX a UWXYbž']a a Yf'bcWX'bUWX'7fUX'Y'A ci bhU]b'[Y`Ub[Ybž']bXYa 'g]Y Y]bY'cf[Ub]g]YfhY'G\i hh`Y!Hci f'Vi WXYb"'8]Y'a Y]ghYb'X]YgYf FY]gYb'g]bX'cf[Ub]g]YfhY'HU[Yghci fYb'a]h'ZYgh[Y`Y[hYbHU[YgcfXbi b[Yb"'9]b][Y'VY]b\U`hYb'bi f'XYb'HfUbgdcfh'ØVYf Y]bYb'G\i hh`YVi gž'UVYf'Yg'[]Vh'Ui WX'Cdh]cbYb'ZØf'k Y]hYfY ♣b_`i g]j `Y]ghi b[Ybž'XUfi bhYf'K UbXYfZØ\fYfž'A]hhU[YggYb'i gk"

I bhYb`\UVY`]W\`X]Y`Ua`VYghYb`VYk YfhYhYb`i bX`Ua`\Ài Z][ghYb
[YVi W\hYb`Cdh]cbYb`Ui Z[YZØ\fhži a `a]h`Y]bYa`G\i hh`Y`bUW\
7fUX`Y`A ci bhU]b`ni`[Y`Ub[Yb"`K Ybb`G]Y`YXcW\`k Y]hYfY`Cdh]cbYb
j Yf[`Y]W\Yb`a ÒW\hYbžYa dZY\`Y`]W\`⇒\bYbž'X]Yg`Ui Z
; YhVci f; i]XY`cXYf`Ui Z`J]Uhcf`ni`hi b"

Cf[Ub]g]YfhYf HU[YgUigZi[jcb < cVUfh

CVk c\`Yg'Y]bY'n]Ya `]W\Y'GhfYW_Y'j cb'<cVUfh'bUW\'7fUX`Y A ci bhU]b']ghž'[]Vh'Yg'Y]b'Ub[YgY\YbYg'I bhYfbY\a Ybž'XUg HfUbgdcfh'i bX'HU[YgUi gZØ[Y'fk]b!'i bX'FØW_ZU\fhŁ'cf[Ub]g]Yfh'' 8 Yf'DfY]g'VY]b\U`hYh'\=\fY'9]bhf]hhg_UfhY'ZØf'XYb'BUh]cbU`dUf_ž Y]bYb'_`]a Uh]g]YfhYb': U\fnYi [hfUbgdcfh'i bX'Y]bY'ZYI]V`Y FY]gYfci hY'bUW\'\=\fYf'5b_i bZh''

8]Y; YgUa hnY]h:ZØf:X]YgYb:f]Yg][Yb:HU[YgUi gZi [:VYhfÀ[h:Yhk U %(!%):Ghi bXYbž:k Ug:=\bYb:[YbØ[YbX:NY]h:[]Vhž:XYb:BUh]cbU`dUf_ni:Yf_i bXYbž:i bX:X]Y:ZfØ\Y:5VfY]gY:]gh:dYfZY_hž:XU:G]Y:_Y]bY_cghVUfYb:HU[Yg`]WXhghi bXYb:j YfgWXk YbXYb"

; Y\Yb'G]Y'ni f'6i W\i b[ggY]hY'ZØf'5i gZØ[Y'bUW\'<cVUfh'2'7fUX\YA ci bhU]b U\h1 K]Y[YbVYf[' 2

Cf[Ub]g]YfhYf`HU[YgUi gZ`i [~j cb~@Ui bWYghcb]

8]Y 'bÀ\YfY 'BÀ\Y 'nk]gW\Yb '@Ui bW ghcb'i bX '7 fUX`Y 'A ci bhU]b VYXYi hYhž XUgg 'Yg'a Y\f'A Ò[`]W_Y]hYb'[]Vhž'Ui Z'Y]bYa HU[YgUi gZi ['Xcfh\]b'ni '[Y`Ub[Yb"'8Yfž XYb']W\'Ya dZY\`Yž']gh'XYf VYghVYk YfhYhY']b'@Ui bW ghcb'i bX'VY]b\U`hYh'j]Y``a Y\f'U`g'bi f XYb'HfUbqdcfh"

- 5V\c`ib['ibX'FØW_[UVY']ca'<chY`
- HfUbgdcfh]a _ca ZcfhUV`Yb?`Y]bVi g
- DfcZYgg]cbY``Yf': Ø\fYf'a]h'j c``ghÀbX][Ya '?ca a YbhUf
- A Y\fYfY'[YZØ\fhY'K UbXYfi b[Yb
- •
- A]hhU[YggYb
- K UggYf'i bX'`Y]WXhY'GbUW_g

; Y Y b G Y ni f 6i W i b [ggY] h Y Z Ø f 5i g Z Ø [Y b U W G w b W g h c b 2 7 f U X Y A c i b h U] b U h 1 K <math>Y Y b V Y f [2]

Cf[Ub]g]YfhYf HU[YgUigZi[bUWX 6ifb]Y

6i fb]Y]ghY]b [fc > Ufh][Yf C fhži a 'g]W]b HUga Ub]Yb b]YXYfni `UggYbži bX [` \emptyset W_`]W Yfk Y]gY $\mathbb{Z}\emptyset$ \ fh Y]b '9]b \ Y]a]gW Yf \]Yf Y]bY 'XYf 'VYghYb '? `Y]b[fi ddYbhci fYb 'Xi fW ž X]Y ' \Rightarrow fY : fU[Y VYUbhk cfhYhž k]Y 'G]Y j cb 'B cfXYb 'b UW '7 fUX 'Y 'A ci bhU]b [Y`Ub[Yb " 8 Uf \emptyset VYf'\]bUi g]gh 6i fb]Y 'Y]b 'VY`]YVhYf' < UZYb ' $\mathbb{Z}\emptyset$ f hUga Ub]gW Y '? fYi nZU\ fhgW]ZZY ž k Ug 'X]YgY 'VYgcbXYfY 'Hci f' $\mathbb{Z}\emptyset$ f X]Y Yb][Yb 'VY`]YVh a UW hž X]Y ']b 'XYf' < UZYbghUXh 'Ub\ U`hYb"

8]Ygʻ]gh'Y]bY'XYfʻ[Øbgh][ghYb'Cdh]cbYbžʻi a 'bUW\'7fUX`Y A ci bhU]b'ni '[Y`Ub[Ybži bX'XU'Ygʻg]W\'i a 'Y]b'5b[YVch'ZØf'_`Y]bY ; fi ddYb'\UbXY`hžʻg]bX'X]Y'FY]gYfci hYb'k]f_`]W\'ZYI]VY`"

; Y\Yb'G]Y'ni f'6i W\i b[ggY]hY'ZØf'6i fb]Y'2'7fUX`Y'A ci bhU]b! 5i gZØ[Y U`h1 : @5I G7 < \Rightarrow 9F'K CA 65H' \Rightarrow B'H5GA 5B \Rightarrow 9B 2

Cdh]cb''.'6i WXYb'G]Y'Y]bYb'df]j UhYb'7\UfhYf'bUWX7fUX`Y'A ci bhU]b

K Ybb'G]Y'`]YVYf' \Rightarrow fYb'Y][YbYb'df]j UhYb'HfUbgdcfh'ni a '7fUX`Y A ci bhU]b'cf[Ub]g]YfYb'a ÒW\hYbž'_ObbYb'G]Y'Ui W\'Y]bYb'df]j UhYb 7\UfhYf'Vi W\Yb'''G]Y'a ØggYb'X]YgY'gdYn]Y``Y'Cdh]cb']a 'JcfUi g cb`]bY'Vi W\Yb'i bX'VYXYb_Ybž'XUgg'X]Yg'j]Y``hYi fYf']ghž'U`g Y]bZUW\']b'Y]b'G\i hh`Y'ni 'ghY][Yb'fbVYbŁ'' U`h1 K \Rightarrow ; 9B@5B8'H5GA 5B \Rightarrow B 2

< Ai Z]['[YghY``hY': fU[Yb'ni f'5bfY]gY'bUWX
7fUX`Y'A ci bhU]b'HUga Ub]Yb</pre>

K]Y 'k Y]h']gh'7fUX`Y 'A ci bhU]b'j cb'<cVUfh'YbhZYfbh3'8]Y ; YgUa hZU\fh'j cb'<cVUfh'bUW\'7fUX`Y 'A ci bhU]b'VYhfÀ[h'' \\$'_a f(!) 'Ghi bXYbŁ"

K]Y'k Y]h']gh'7fUX`Y'A ci bhU]b'j cb'8Yj cbdcfh'YbhZYfbh.'8]Y; YgUa hZU\fh'j cb'8Yj cbdcfh'bUW\'7fUX`Y'A ci bhU]b'VYhfÀ[h', + _a 'f½') 'Ghi bXYbŁ"

K Ugʻ[]VhʻYgʻXcfhʻni 'hi b3'GcVU`X'G]Y']b'7fUX`Y'A ci bhU]b Ub[Y_ca a Ybʻg]bXžʻ[]VhʻYgʻj]Y``ni 'hi b"'Ni 'XYb'<][\`][\hg [Y\ÒfYb.

- 8 Y f '8 c j Y '@U_Y '7] f W] h
- G]Y\Y'X]Y'OYa U]``dfchYWhYXQ
- A Uf]cbg'5i gg]WXhgdib_h
- K]`Xb]g'; U`Yf]Y
- J YfnUi VYfhYf GdUn]Yf[Ub[

8]Y'VYghYb'HcifYb'ibX'5_h]j]hÀhYbž'X]Y'G]Y VY]'7fUX`Y'A cibhU]b'ViWXYb'_ÒbbYb

BUW Zc`[YbX`Z]bXYb`G]Y`a Y]bY`\UbXj Yf`YgYbY`@]ghY`XYf`VYghYbHcifYb`ibX`5_h]j]hÀhYbžX]Y`]a `DUf_`j YfZØ[VUf`g]bX"`8U`X]Yg`XYfVY`]YVhYghY`DUf_`]b`HUga Ub]Yb`]ghžYa dZY\`Y`]W\`Xf]b[YbXž5_h]j]hÀhYb`ibX`: Ø\fib[Yb`]a `JcfUig`cb`]bY`ni `ViW\Ybžia `g]W\Y]bYb`D`Uhn`ni `g]W\Yfb"

K c ØVYfbUW hYb 'I bhYf_i bZhgZØ\fYf

KigghYb'G]YžXUgg'Yg'Ui W\a Ò[`]W\]ghž]b'XYf'BÀ\Y'jcb'7fUX`Y AcibhU]b'ni 'ØVYfbUW\hYb3'8U'Yg'\]Yf'gc'j]Y`'ni 'hib'ibX'ni YbhXYW_Yb'[]Vhž']gh'Yg'Y]bY'[ihY'⇒XYYž'a]bXYghYbg'Y]b'dUUf'HU[Yni'jYfVf]b[Yb''IbhYb'\UVY']W\X]Y'nkY]'VYghYb IbhYf_ibZhgaÒ[`]W_Y]hYb'jYf`]b_hžX]Y'XYa'BUh]cbU`dUf_'Ua bÀW\ghYb'`]Y[Yb"

7fUX`Y`A ci bhU]b`K]`XYfbYgg'J]``U[Y

8 UgʻH\YʻK]`XYfbYggʻJ]``U[Y``]Y[h'X]fY_h'Ua `F UbXY`XYgʻni a K Y`h_i `hi fYfVY`[Y\ÒfYbXYb`BUh]cbU`dUf_gʻi bX`V]YhYh I bhYf_ØbZhY`ni fʻGY`Vghj YfdZY[i b[ˈ]b`Y]bYf FY[Ybk U`Xi a [YVi b["

±b·6Yni [ˈUi Z'X]Y·9bhZYfbi b[ˈni a ˈDUf_ˈ]ghːX]YgʻgcʻbU\ʻk]YʻYgʻbi f [Y\h"·9gʻ]ghʻ) ; Y\a]bi hYbʻj ca ˈ6Ygi W\YfnYbhfi a ˈi bXˈ%\$: U\fa]bi hYbʻj ca ˈGhUfhːXYgʻVY`]YVhYbʻCj Yf`UbXʻHfUW_'YbhZYfbh"

、 VYfdfØZYb'G]Y'XYb'DfY]g'i bX'X]Y'J YfZØ[VUf_Y]h'ZØf' ⇒ fY FY]gYXUhYb U`h1 2
@Ya cbh\ma Y'K]`XYfbYgg'FYhfYUh

8 Ug @Ya cbh\ma Y F YhfYUh]gh Y]b Y df Y]g[Y_f Obh Y 6 ci h]ei Y!

K] `Xb]g! @c X [Y a]h Y]b Ya Y][Yb Yb F Ygh Ui f Ubh ii b X ``]Y [h j Yfgh Y W_h
]b Y]b Ya Zf]Y X `] W Yb F Y [Yb k U `X ž Yh k U '(\$ A]b i h Y b j ca '7 f U X `Y
A ci bh U]b B Uh]c b U `` D Uf_ Y bh Z Y f b h''

8]Ygʻ]ghʻY]bʻ[fc»Ufh][YfʻFØW_ni [gcfhʻZØfʻFY]gYbXYʻbUWX HUga Ub]YbžʻX]YʻXYa '5``hU['YbhZ]Y\Ybʻi bXʻYhk UgʻNY]hʻ]bʻXYf BUhi fʻj YfVf]b[Ybʻa ÒWXhYb"'=bʻXYfʻBÀ\YʻZ]bXYbʻG]YʻUi WXʻ6f]XU` JY]`i bXʻ7\Ua dU[bYʻ: U``gʻ nk Y]ʻa Y]bYfʻ@]YV`]b[gk UggYfZÀ``Yʻ]b HUqa Ub]Yb"

, VYfdfØZYb'G]Y'XYb'DfY]g'i bX'X]Y'J YfZØ[VUf_Y]h'ZØf' \Rightarrow fY FY]gYXUhYb U'h1 @9A CBH< MA 9'@C8; 9'K =@89FB9GG'F9HF95H'7F58@9 A CIBH5=B'H5GA 5B=9B 2

K Y]hYfY hUga Ub]gW\Y FY]gYZØ\fYf i bX 5VYbhYi Yf!=Bgd]fUh]cb

'U`h1 K CA 65H'51: '89A 'K 9; '5A '7F58@9'A CIBH5-B H5GA 5B-9B 2

п

6Ygi WXYb G]Y i bg Ui Z Y]bY!fY]gY "XY