

### $? \varnothing bgh`]WX Y = bhY``][Ybn']b'XYf' > igh]n$

6UXYb!K ØfhhYa VYf[ '\Uh'XUq'?cbnYdh'Y]bYq'Vi bXYqk Y]h  $Y]b \setminus Y]h^*]WXYb^*? \varnothing bgh^*]WXY! = bhY^**][Ybn!DcfhU^*g^*Z\varnothing f^*X]Y^* > gh]n^*$ Ybhk | W Y`h" 5a '@UbX[Yf] W h'< Y W | b [Yb '`Ài Zh'Y | b 'D] `ch' ZØf'? # GcZhk UfY ]b N] ] YfZU\fYb "6UXYb!K ØfhhYa VYf[ g'A ]b]ghYf]b XYf > gh]n i b X ZØf A ][ fUh]cb A Uf]cb ; Ybh[ Yg \ Uh Ua  $\$  \Yi h][Yb 8cbbYfghU[  $\check{z}$  &&" GYdhYa VYf &\$&& ]a FU\a Yb Y]bYg'HYfa ]bg'Ua '@UbX[Yf]W\h'<YW\]b[Yb VY Ubbh[Y[YVYbžXUgg~6UXYb!K ØfhhYa VYf[~ZYXYfZØ\fYbX  $Y \mid b ? c b n Y d h Z \emptyset f Y \mid b V i b X Y g k Y \mid h Y \mid b \setminus Y \mid h \mid W X Y g \mid ? \neq D c f h U i b X$ Y]bY'[Ya Y]bgUa Y'? +GhfUhY[]Y'YfUfVY]hYh"'Ni gUa a Yb'a ]h Dfàg]XYbh'XYg'@UbX[Yf]W\hg': `cf]Ub'8]Y\_a Ubb'\Uh'g]Y ni XYa 'XUg'5gg]ghYbndfc[fUa a '7cXYZm ž'XUg'XYfnY]h'Ua @UbX[Yf]W\h'<YW\]b[Yb'd]`ch]Yfh'k]fX $\check{z}$ i cf[YghY``h"; Ybh[Yg qU[hY.'8]Y'9]bZØ\fib['XYf'Y`Y\_hfcb]qW\Yb'5\_hYž'eiUq]'X]Y YfghY'8][]hU`]g]Yfi b[gk Y``Yž'V]Y[h']b'6UXYb!K ØfhhYa VYf[ VYfY]hgUiZX]YN]Y`[YfUXY/UadAY``]d/

6UXYb!K ØfhhYa VYf[ '\Uh'XUg'?cbnYdh'Y]bYg'Vi bXYgk Y]h Y]b\Y]h`]W\Yb'? Øbgh`]W\Y! \= hY``][ Ybn!DcfhU`g'ZØf'X]Y' \= gh]n Ybhk ]W\_Y`h"'5a '@UbX[ Yf]W\h'< YW\]b[ Yb'`Ài Zh'Y]b'D]`ch'ZØf ? \= GcZhk UfY']b'N]j ]`j YfZU\fYb"

6UXYb!K ØfhhYa VYf[g'A]b]ghYf]b'XYf'≯gh]n'i bX'ZØf'A][fUh]cb
A Uf]cb'; Ybh[Yg'\Uh'Ua'\Yi h][Yb'8cbbYfghU[ž'&&"'GYdhYa VYf
&\$&&']a 'FU\a Yb'Y]bYg'HYfa]bg'Ua '@UbX[Yf]W\h'<YW\]b[Yb
VY\_Ubbh[Y[YVYbž'XUgg'6UXYb!K ØfhhYa VYf['ZYXYfZØ\fYbX'Y]b
?cbnYdh'ZØf'Y]b'Vi bXYgk Y]h'Y]b\Y]h']W\Yg'? ‡DcfhU''i bX'Y]bY
[Ya Y]bgUa Y'? ‡GhfUhY[]Y'YfUfVY]hYh"'Ni gUa a Yb'a]h'DfÀg]XYbh
XYg'@UbX[Yf]W\hg': `cf]Ub'8]Y\_a Ubb'\Uh'g]Y'ni XYa 'XUg
5gg]ghYbndfc[fUa a '7cXYZm ž'XUg'XYfnY]h'Ua'@UbX[Yf]W\h
<YW\]b[Yb'd]`ch]Yfh'k]fXž'j cf[YghY``h"

; Ybh[YgʻgU[hY. 8]Yʻ9]bZØ\fi b[ XYfʻY`Y\_hfcb]gW\Ybʻ5\_hYž
ei Ug]X]YʻYfghYʻ8][ ]hU`]g]Yfi b[ gk Y``Yž'V]Y[h']bʻ6UXYb!

K ØfhhYa VYf[ 'VYfY]hgʻUi ZʻX]YʻN]Y`[ YfUXYʻY]bʻ'8]YgYfʻ: cfhgW\f]hh
j YfgYhnhi bgʻ]bʻX]Yʻ@U[Yžʻbi bʻXYbʻnk Y]hYbʻGW\f]hhʻni '[Y\Ybʻi bX
]bhY``][ YbhYʻ5gg]ghYbngmghYa Yʻ]bʻXYfʻ\* gh]nʻUi Zni VUi Ybʻ'GÀ» Y
a Ubʻ]bʻXYbʻ; Yf]W\hYbʻbcW\ja a YfʻUi ZʻghUdY`k Y]gYʻDUd]YfU\_hYbž
VfÀi W\hYbʻk ]fʻØVYfʻ? Øbgh`]W\Yʻ\*bhY``][ YbnʻØVYf\Ui dhʻb]W\h'ni
gdfYW\Ybʻ'\*\*\W`gY\YʻX]YʻVUXYb!k ØfhhYa VYf[ ]gW\Yʻ\* gh]nʻXYg\UʻV
Ui W\jbʻXYfʻDZ]W\h`6Y]ʻXYfʻ9]bZØ\fi b[ `XYfʻY`Y\_hfcb]gW\Ybʻ5\_hY
\Uhʻ6UXYb!K ØfhhYa VYf[ 'Vi bXYgk Y]hgY]hʻ\*\J\fYbʻY]bY
J cffY]hYffc``Yʻ]bbY''J cfʻX]YgYa '<]bhYf[ fi bX`[Y\Ybʻk]fʻbi bʻX]Y
bÀW\ghYʻ5i Z[ UVYʻUb''5i W\VY]ʻXYfʻbAW\ghYbʻ8][ ]hU`]g]Yfi b[ gk Y``Y
k ]fX`6UXYb!K ØfhhYa VYf[ 'j cfUb[Y\Ybʻi bX`XYbʻ9]bgUhn`XYf
? Øbqh`]W\Ybʻ\*\bhY``][ Ybn`]bʻXYfʻ\* qh]nžUi W\v`i bXYqk Y]hžʻZcfWYfYb''

#### 6i bXYgk Y]h'Y]b\Y]h`]WXYg'? ∃DcfhU`

± XYf VUXYb!k ØfhhYa VYf[]gWXYb ⅓ gh]n k YfXYb gc `WXY GmghYa Y VYfY]hg YfZc `[fY]WX Ybhk]W\_Y `h i b X [YhYghYh" 8]Y `Gc Zhk UfY 7 c XYZm `]gh Y]b Yg `XUj c b i b X k ]fX `XYfnY]h `Ua `@Ub X[Yf]WX h < YWX]b[Yb ]b `N]j ]`j YfZU\fYb 'd]`ch]Yfh" `G]Y `]gh `XUfUi Z `Ui g[Y`Y[hž Y]bY `? ‡[YghØhnhY `Ghfi \_hi f]Yfi b[ 'j c b `8 c\_i a YbhYb ']bgVYgc b XYfY `5 b k U`hggWX f]ZhgÀhnYb '` ni `Yfa Ò[`]WXYb 'i b X `VY] `XYf 9fZUggi b[ ž C fXbi b[ 'i b X `6 Yi fhY]`i b[ `XYg `GhfY]hghc ZZg `ni

DfÅg]XYbhXYg`@UbX[Yf]Wkhg'8]Y\_a Ubb. 8]Y k UWkgYbXY'NU\``Ub A UggYj YfZU\fYb ii bX'X]Y']a a Yf``Àb[Yf'k YfXYbXYb`GWkf]ZhgÀhnY ghY``Yb`X]Y; Yf]WkhY'gY]h'\lambda\fYb'j cf'[fc\rightarrow Y'< YfUi gZcfXYfi b[Yb" \dignormal{\

#### 8]Y'Y`Y\_hfcb]gW\Yb'5\_hY

8 ] Y : i gh]n : ] b : 6 U X Y b ! K ØfhhY a V Y f[ : ] gh'V i b X Y gk Y ] h : ZØ\ f Y b X : V Y ] : X Y f 9 ] b ZØ\ f i b [ : X Y f : Y Y \_ hfc b ] g \ Y b : 5 \_ h Y " 8 ] Y : 5 i gghUhhi b [ : X Y f : U \ X [ Y f] \ X \ h Y : a ] h : X Y f : gc [ Y b U b b h Y b : Y 5 \_ h Y : ] gh'U V [ Y g \ X \ c g g Y b z gc X U g g : U ` ` Y : ] b U b n! ž : 5 f V Y ] h g! : G c n ] U `! : i b X : J Y f k U ` hi b [ g [ Y f] \ M \ h Y : ] a @U b X : ] \ f Y : J Y f Z U \ f Y b : Y ` Y \_ h f c b ] g \ M \ V Y U f V Y ] h Y b " : 8 U g g Y ` V Y : [ ] ` h : ZØ f X ] Y : Ø V Y f k ] Y [ Y b X Y : N U \ ` ` X Y f : Y f] \ M \ h Y : X Y f : c f X Y b h`] \ M \ Y b : X Y f \ X Y f \ M \ h g V U f \_ Y ] h : ] a : N ] j ] ` V Y f Y ] \ M \ " : 6 Y ] X Y : C V Y f ` U b X Y g [ Y f] \ M \ h Y : ž U ` ` Y \ % + ` @U b X [ Y f] \ M \ h Y : g c k ] Y : \* ( : 5 a h g [ Y f] \ M \ h Y : g ] b X : ] b n k ] g \ M \ Y b : a ] h : X Y f \ Y \_ h f c b ] g \ M \ Y b : 5 \_ h Y : U i g [ Y g h U h h Y h " : 8 ] Y : 5 i g g h U h h i b [ : X Y f \ Y \_ h f c b ] g \ M \ h Y : ] a : 6 Y f Y ] \ M : X Y f : N ] j ] ` I : i b X : U a ] ` ] Y b [ Y f] \ M \ h Y : k ] f X : ] a \_ c a a Y b X Y b : \$ J \ f : U V [ Y g \ M ` c g g Y b : g Y ] b " `

5 i Z[ fi bX 'Vi bXYgfYW\h`]W\Yf'J cf[ UVYb'k YfXYb'U``Y'; Yf]W\hY'i bX GhfUZj YfZc`[ i b[ gVY\OfXYb'UV'XYa '\\\J\f'\&\\$\&\*'ni f'Y`Y\_hfcb]gW\Yb 5\_hYbZØ\fi b[ 'j YfdZ]W\hYh''

## 8 YhU]`g

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