

## 6Yf`]b ZY]Yfh'?i bgh. 5hYa VYfUi VYbXY 5i gghY``i b[Yb ]b X]YgYf K cWXY°

9f`YVYb`G]Y`nY]h[YbÒgg]gW\Y`?ibgh`]b`6Yf`]b.`5igghY``ib[YbibX`JYfUbghU`hib[Yb'jca '+"`V]g`%' "'¾`]'&\$&) 'UbifgW\]YXYbYb`CfhYb"



 $9fbgh!FYihYf!D`Uhnž'%\$), + '6Yf`]b\check{z}'8YihgW\&`UbX'!' \triangleq '6Yf`]bhihg]W\&`kUg`'5a'+"'<math>\Rightarrow$ `]'&\$&) ``cW\_h'X]Y'<UidhghUXh'a]h'Y]bYajY`ZA`h][Yb'Dfc[fUaa'ZØf'?ibgh`]YV\UVYf"'Jcb'gdUbbYbXYb5igghY``ib[Yb'V]g'\]b'ni'\_\_Øbgh`Yf]gW&Yb': Ygh]jU`g''X]YnY]h[YbÒgg]gW&Y'?ibghgnYbY'gdfØ\h'ZÒfa`]W&'jcf'@YVYb'ibX?fYUh]j]hAh"'5fh!]b!6Yf`]b'VYf]W&hYhjcb'XYb'UiZfY[YbXYb<][\`][\hgž'X]Y'ZØf'?ibgh!'ibX'?i`hif]bhYfYgg]YfhY'UiZ'XYa'D`UbghY\Yb"

9fÒZZbYh'k]fX'XYf'?i bgha UfUh\cb'i a '%('I\f'a]h'XYf'5i gghY``i b[; Ybcgg]b'5fW\]hY\_hž'?c``Y[]b'5fW\]hY\_h' ': fUi Yb'VUi Yb'6Yf`]bžX]Y'<Ui dhghUXh'XYf'88F ']b'XYb'FÀi a `]W\\_Y]hYb'j cb'6<FCLVUi\Ui g'fYi gY''8]YgY'5i gghY``i b['[]Vh']bhYfYgg]YfhYb'6Ygi W\Yfb

## J]Y`ZU`h'XYf'?ibgh

6Yf`]b']gh'Y]b'GW\a Y`nh]Y[Y`XYf'?i bghZcfa Yb''9[U`ž'cV'6]`XYbXY?i bghž'6Ui \_i bgh'cXYf'X][]hU`Y'A YX]Ybž'X]Y'GhUXh'\Uh'ZØf'YXYb; YgW\a UW\_'Yhk Ug'ni 'V]YhYb'''<i bXYfhY'j cb'; U`Yf]Yb dfÀgYbh]YfYb'X]Y'bYi YghYb'GhfÒa i b[Yb'i bX'nY]h[YbÒgg]gW\Y K Yf\_Y'i bhYfgW\]YX`]W\ghYf'Gh]`f]W\hi b[Yb'''9hUV`]YfhY?Øbgh`Yf.]bbYb'k]Y'5`]W]U'?k UXY'i bX''-`UZ f'9`£Uggcb'gW\AhnYb'X]Y?i `hi fa Yhfcdc`Y'U`g']\fYb'K c\b!'i bX'5fVY]hgcfh'i bX'hfU[Yb'ni f\_fYUh]j Yb'J]Y`ZU'h'VY]''8]Y'5\_UXYa]Y'XYf'?ØbghYž'[Y[fØbXYh%\*\*-ž'i bX'XUg'<Ui g'XYf'?i `hi fYb'XYf'K Y`h'g]bX'bi f'nk Y]'XYf\bgh]h h]cbYbž'X]Y'XYb'8]g\_i fg'i bX'5i ghUi gW\']b'XYf'?i bgh'U\_h]j ZÒfXYfb'''J ]g]h'6Yf`]b'\YVh'\Yfj cfž'XUgg'Ui W\'X]Y'GhfYYh'5fh GnYbY']b'XYf'GhUXh'XYb'Ni [Ub['ni '?i bgh'ZØf'U``Y'Yf`Y]W\hYfh''

 $B \ UWX \ X]YgYb \ YfghYb \ 5i \ gghY \ ib [Yb \ Yfk \ UfhYh \ X]Y \ 6Ygi \ WX \ Yf \ Ua \ - " \ $i \ a \ \%- I \ f \ X]Y \ GWX \ Ui \ : f \ (X) \ b[ \ X \ ) \ a \ 775 \ 6Yf \ bz \ X]Y \ ]bbcj \ Uh]j \ Y \ 5fVY]hYb \ j \ cb \ $g\ U \ HUfY \ Y \ F \ Y]X \ ib \ X \ gY]bYb \ A \ ]hYfb \ nY][h"I \ bX \ [Y]WX \ Ua \ bAWX \ ghYb \ HU[ \ [Y \ h \ Yg \ ]a \ < Ui \ g \ Ua \ ? \ Y]ghd \ Uf \ k \ Y]hYfa \ ]h \ 69F @B \ 9-B G \ 8]Y \ BYi \ bn][ \ Yf \ ii \ a \ \%+ I \ fz \ X]Y \ Y]bYb \ bcghU \ []gWX \ Yb \ F \ ØW_V \ ]W_Ui \ Z \ Y]b \ Ui \ Z \ Y \ [Yb \ X \ Yg \ $J \ h \ h \ ]b \ X \ Yf' \ Ui \ dhghUXh \ Yf \ Ui \ Vh''$ 

## 9]b: Ygh]j U`ZØfX]YG]bbY

Ni gàhn`]WX 'YfÒZZbYhY 'Ua '+"'A àfn'&\$&) 'X]Y'; U`Yf]Y'; Y[Yb'/ '@W\_Y Ua 'FcgU!@ I Ya Vi f[!D`Uhn']b'6Yf`]b!A ]hhY"'8]YgY'; U`Yf]Y'\Uh'g]WX ni a 'N]Y`'[YgYhnhž'1 b[Y'HU`YbhY'ni 'ZÒfXYfb'i bX'X]Y'\_i `hi fY``Y J]Y`ZU`h'XYf'GhUXh'ni 'Yfk Y]hYfb"'?i bgh`YVYb'6Yf`]b'\YVh'\Yfj cfž XUgg'X]Y'9fÒZZbi b[ggWXUi 'Y]bY'gdUbbYbXY'; fi ddYbUi gghY``i b[a]h'Ui ZghfYVYbXYb'?Øbgh`Yf.]bbYb'nY][h'i bX'X]Y'; U`Yf]Y'U`g D`UhhZcfa 'ZØf'\_fYUh]j Y'HU`YbhY'Zi b[]Yfh"

 $6Yf`]b`V]YhYh'gY]bY`\_\emptysetbgh`Yf]gWXYb`GWXÀhnY`]b`<\emptyset``Y`ibX`: \emptyset``Y'Yg `]Y[h'Ub`ibgž'X]YgY`J]Y`ZU`h'ni 'YbhXYW_Yb'ibX'ni '[Yb]Y»Yb"'5`gcž @YihYž'a UWXh'YiWX`VYfY]h'ZØf'Y]b'gdUbbYbXYg'?ibghkcWXYbYbXY°$ 

8 Y hU]`g	
Cfh	9fbgh!FYi hYf!D`Uhnž'%\$), + '6Yf`]bž
	8 Yi hgWX`UbX
EiY``Yb	<ul><li>k k k "Ufh!]b!VYf`]b"XY</li></ul>
	<ul><li>k k k "j ]g]hVYf`]b"XY</li></ul>
	<ul><li>k k k "_i bgh`YVYb!VYf`]b"XY</li></ul>

6 Y gi W Y b 'G ] Y 'i b g 'U i Z 'b ! U [ "b Y h