

?]Y`Yf`6cchg\UZYbgca a Yf`&\$&).`9]b`: Ygh XYf`G]bbY`Ua `K UggYf°

?]Y`Yf`6cchg\UZYbgca a Yf`&\$&) . `9]b`_i `hi fY``Yg`<][\`][\h j ca '%, "' \Rightarrow `]'V]g`&' "'5i [i gh'a]h'j]Y`ZÀ`h][Yb'J YfUbghU`hi b[Yb]b'XYf` \Rightarrow bYbghUXh"



5a '%) "'\$\angle \]'&\\$\angle \] k YfXYb 'A YX]Ybj YfhfYhYf'ni 'Y]bYf

DfYggY_cbZYfYbn'Y]b[Y`UXYbž'X]Y'i a '%' .\\$\angle \] a '6cchg\UZYb

Ui Z'<\angle \]\Y'XYg'Dcbhcbg'ghUhhZ]bXYh"'8cfh'k YfXYb'i bhYf'UbXYfYa

7\f]gh]Ub `GW\@hnY`j cb`?]Y`!A Uf_Yh]b[`Y"J "ž'<Y]_Y`@]Yg_Y`i bX
A U]_Y`J]Y`UbX`j ca `5a h`Z@f`?i `hi f`i bX`K Y]hYfV]`Xi b[`gck]Y
JYfhfYhYf`XYg`BYhhY?]Y`Yf`9\fYbUa hgV@fcg`gdUbbYbXY
\(\delta Zcfa Uh]cbYb`i bX`9]bV`]\(\widetildow_Y`[YVYb": \@f`: fU[Yb`ghY\Yb`X]Y
; YgdfÀW\\\gdUfhbYf`VYfY]h`i bX`i bhYf`XYf`HY`YZcbbi a a Yf`\$(' %`
* +- `%\$`&* `_\ObbYb`g]\\\`\delta hYfYgg]YfhY`[YfbY`a Y`XYb"

9]b Vi bhYg 9fÒZZbi b[gdfc[fUa a

?Ui a `\Uh`XUg`: Ygh]j U``VY[cbbYbžYfk UfhYh`X]Y`6Ygi W\Yf`Ua
9fÒZZbi b[ghU['Y]b`A]ha UW\hU["'<]Yf`k]fX`XUg
: ÒfXYfV`UgcfW\YghYf`X]Y`J YfUbghU`hi b['a i g]_U`]gW\'Y]b`Y]hYb`i bX
Yg`[]Vh`Y]b`VfY]hYg`GdY_hfi a `Ub`5_h]j]hÀhYb`ZØf`; fc» 'i bX`?`Y]b"
K Yf`[YfbY`hUbnYb`a ÒW\hYž`Z]bXYh`VY]': ÒfXYgU`gU'i bX`XYa
? UfUc_Y`6cmg 'X]Y`dYfZY_hY`; Y`Y[Yb\Y]h`XUni "'Jcb'%) 'V]g`&\$
I \f`_Ubb`a Ub`VY]a `GdfUmYb`i bX`6UghY`b`a]h` NY]hYbk UYbXY
_fYUh]j `k YfXYb"`A UhYf]U`]Yb`k]Y`@Y]bk ÀbXYž`GdfUmXcgYb`i bX
6UghY`a UhYf]U`k YfXYb`VYfY]h[YghY``h` `gc`_Ubb`YXYf`gY]bY
_Øbgh`Yf]gW\Yb`5XYfb`ni a `JcfgW\Y]b`Vf]b[Yb`

9]b'k Y]hYfYg'<][\`][\h'k]fX'X]Y'DfYa]YfY'XYf'Gca a YfcdYf' @UHfUj]UhU 'XUfghY``Ybž'X]Y'UV'&\$'I\f'UiZ'Y]bYf'; fc»V]`X`Y]bk UbX Ua '6cchg\UZYb'`]j Y'ØVYfhfU[Yb'k]fX"'?cbnYfhVYgi W\Yf'_ÒbbYbg]W\'UiZ'Y]bY'gdUbbYbXY'5iZZØ\fib['ZfYiYbž'X]Y'V]g'nia'&+"'*\`]UiZ'XYa'FUh\Uigd`Uhn'Zcfh[YgYhnh'k]fX"

?i `hi fY``Y 'J]Y `ZU `h 'Y f `Y V Y b

8 Ug'_i `]bUf]gWXY'5b[YVch'k À\fYbX'XYg': Ygh]j U`g'k]fX'YVYbZU``gb]WXh'ni '_i fn'_ca a Yb"'Jcb'gUZh][Yb'6i f[Yfb'ØVYf'Zf]gWXY:]gWXVfÒhWXYb'V]g'\]b'ni 'j Y[UbYb'7fYdYg'_Ubb'\]Yf''YXYf; Ui a Yb'j Yfk Ò\bh'k YfXYb"'I bX'b]WXh'bi f'XUg. '5a 'HU['XYf?]Yn\Y`XYb'dfÀgYbh]YfYb'g]WX'`c_U`Y'; Yk YfVYhfY]VYbXY'Ua 6cchg\UZYb'i bX'nY][Ybž'k]Y'j]Y`ZÀ`h]['?]Y``]gh"

9]b'VYgcbXYfYg'5i [Yba Yf_``]Y[h'X]YgYg'\$J\f'Ui Z'gcn]U`Yb DfcY_hYb"'Gc'Z]Y»Yb'X]Y'9f`ÒgY'Ui g'Y]bYa 'gdUbbYbXYb 9bhYbfYbbYbžXUg'i a '%' I\f'VY[]bbhž'Ub'XYb'<cgd]nj YfY]b 8 Åb]gWXYf'K c\`X'gck]Y'Ub'XUg'?]bXYf!'i bX'¾ [YbXhY`YZcb" 5i »YfXYa '[]Vh'Yg'Y]bY'DZUbXgdYbXYU_h]cb'ZØf'Y]bYb'[i hYb Nk YW_ž'VY]'XYf'FØW_[UVYb'j cb'6YWXYfb'i bX'; `ÀgYfb'\Yfn`]WX k]``_ca a Yb'g]bX'i bX'XYa 'Dfc'Y_h' @Òddh'a]hbUbbYf ni [i hY_ca a Yb"

8]Y'J]Y`nU\``XYf'5_h]j]hÀhYb'i bX'9j Ybhg'a UW\h'XYb
6cchg\UZYbgca a Yf'ni 'Y]bYa 'i bj Yf[Ygg`]W\Yb'9f`YVb]g"
I bhYfghØhnhik]fX'XUg': Ygh]j U`i bhYf'UbXYfYa 'Xi fW\'XUg
BYhhY?]Y`Yf'9\fYbUa hgVØfcž'XUg'Y\fYbUa h`]W\Yg'9b[U[Ya Ybh']b
?]Y``ZÒfXYfhž'i bX'X]Y'JYfUbghU`hi b[gfY]\Y']gh'HY]``XYg' ?]Y`Yf
?i `hi fgca a Yfg ž'XYf']b'X]YgYa '\$U\f'VYfY]hg'Ui Z'&) '\$U\fY
ni fØW_V`]W_h"

: Øf'k Y]hYfY' ⇒ Zcfa Uh]cbYb'i bX'XUg'U_hi Y``Y'Dfc[fUa a '`c\bh'g]W\ Y]b'6`]W_'Ui Z'_]Y`!gU]`]b[!W]hm"XY'cXYf'X]Y'DfYggYa]hhY]`i b[Yb j cb'?]Y``A Uf_Yh]b["

8 Yf'6cchg\UZYbgca a Yf']gh'a Y\f'U`g'bi f'Y]b': Ygh' 'Yg']gh'Y]bY Gh]a a i b[ž'X]Y'X]Y'GhUXh'VY`YVh'i bX'j YfV]bXYh"'5`gc'b]W\h j YfdUggYb'i bX'UV'ni a '6cchg\UZYb'

8 Y hU]`g	
Cfh	?]Y`ž'8Yi hgWX`UbX
Ei Y``Yb	dfYggY"_]Y`!a Uf_Yh]b["XY
	_]Y`!gU]`]b[!W]hm"XY
	• k k k "_]Y`!a U[Un]b"XY

6 Ygi WX Yb 'G]Y i bg 'Ui Z 'X]Y!bUWX f]WX hYb "Wca