

7cfcbU!J YfcfXbi b['5VgcbXYfi b[Ub[YdUggh

6UXYb!K ØfhhYa VYf['dUggh'X]Y FY[Y`i b[Yb 'ni a HÀh][_Y]hgj YfVch VY] Ugma dhca Uh]gWX Ya dcg]h]j [YhYghYhYa a YX]n]b]qWXYa 'DYfqcbU`'Ub"'=a '9]bnY`ZU``'XØfZYb'dcq]h]j 'Ui Z XUgʻ7cfcbUj]fi gʻ[YhYghYhYʻ6YgWXÀZh][Yʻ]bʻ?`]b]_Ybʻi bX | Yf[`Y]WXVUfYb a YX]n]b]qWXYb '9]bf]WX hi b[Yb 'UfVY]hYb" '8]Y bYiY'JYfcfXbib['[]`h'UV'&)"'> `]'&\$&&"'6UXYb!K ØfhhYa VYf[dUgghX]YFY[Y`i b[Yb ni a HÀh][_Y]hgj YfVchVY] Ugma dhca UhlqWX Ya 'dcqlhli '[YhYqhYhYa 'a YX]n]b]qWX Ya DYfqcbU`'Ub"'8]Yq'YfZc`[h'Ui Z'Ui qXfØW_`]WXYb'K i bqWX'XYf ?fUb_Yb\AigYf"'8]Y'YbhgdfYW\YbXY'7cfcbU!JYfcfXbib[5 V g c b X Y f i b ['hf]hh 'Ua '&) "'⇒ `]'&\$&&']b'? f U Zh"': Øf'd c g]h]j 'Ui Z XUgʻ7cfcbUj]fi gʻ[YhYghYhYʻ6YgW\AZh][hYʻ]bʻa YX]n]b]gW.! dZY[Yf]qWXYb '9]bf]WX hi b[Yb '[]`h'XYfnY]h'Y]b HÀh][_Y]hqi YfVch'V]q'ni a '%) "'HU['bUW XYa '9fqhbUW k Y]q $XYg^9ffY[Yfg''?\emptysetbZh]['_Ubb'X]Y^9]bf]Whib[g`Y]hib[']a$ $9]bnY`ZU```XUg`V]g\Yf`VYghY\YbXY'/ Ua d\Y``]d/$

6UXYb!K ØfhhYa VYf['dUggh'X]Y FY[Y`i b[Yb'ni a HÀh][_Y]hgj YfVch'VY] 'Ugma dhca Uh]gWX Ya 'dcg]h]j [YhYghYhYa 'a YX]n]b]gWX Ya 'DYfgcbU`'Ub" =a '9]bnY`ZU`` XØfZYb'dcg]h]j 'Ui Z'XUg'7cfcbUj]fi g'[YhYghYhY'6YgWX ÀZh][Y]b'?`]b]_Yb'i bX'j Yf[`Y]WX VUfYb'a YX]n]b]gWX Yb 9]bf]WX hi b[Yb'UfVY]hYb"'8]Y'bYi Y'J YfcfXbi b['[]`h'UV'&) " >i `]*&\$&&"

6UXYb!K ØfhhYa VYf['dUggh'X]Y'FY[Y`i b[Yb'ni a 'HÀh][_Y]hgj YfVch VY]'Ugma dhca Uh]gW\Ya 'dcg]h]j '[YhYghYhYa 'a YX]n]b]gW\Ya DYfgcbU`'Ub"'8]Yg'YfZc`[h'Ui Z'Ui gXfØW_`]W\Yb'K i bgW\'XYf ?fUb_Yb\Ài gYf"'8]Y'YbhgdfYW\YbXY'7cfcbU!JYfcfXbi b[5VgcbXYfi b['hf]hh'Ua '&) "'\$\;\]'&\$&&']b'?fUZh"

: Øf'dcg]h]j 'Ui Z'XUg'7cfcbUj]fi g'[YhYghYhY'6YgW\ÀZh][hY']b
a YX]n]b]gW\!dZY[Yf]gW\Yb'9]bf]W\hi b[Yb'[]`h'XYfnY]h'Y]b
HÀh][_Y]hgj YfVch'V]g'ni a '%) "'HU['bUW\'XYa '9fghbUW\k Y]g'XYg
9ffY[Yfg"'? ØbZh]['_Ubb'X]Y'9]bf]W\hi b[g`Y]hi b[']a '9]bnY`ZU```XUg
V]g\Yf'VYghY\YbXY'HÀh][_Y]hgj YfVch'VY]'a YX]n]b]gW\Ya 'DYfgcbU`
]b'?`]b]_Yb'i bX'j Yf[`Y]W\VUfYb'a YX]n]b]gW\Yb'9]bf]W\hi b[Yb
Ui ggYhnYbž'gcZYfb'X]Y'6YgW\ÀZh][hYb'UV'XYa 'gYW\ghYb'HU['XYg
9fghbUW\k Y]gYg'j cb'G5FG!7cJ!&'_Y]bY'hmd]gW\Yb'Gma dhca Y
Y]bYf'9f_fUb_i b['a]h'XYa '7cfcbUj]fi g'a Y\f'Ui Zk Y]gYb"

DZ`]WX h'ni f'GY`VghØVYfk UWX i b[

: Øf'X]Y'6YgW\AZh][hYb'VYghY\h'YXcW\'X]Y'DZ]W\h'ni f
GY`VghØVYfk UW\i b['Ui Z'X]Y'hmd]gW\Yb'G5FG!
7cJ!&!?fUb_\Y]hggma dhca Y'gck]Y'X]Y'DZ]W\h'ni a 'HfU[Yb'Y]bYf
5hYa gW\i hna Ug_Y'fl: D&'cXYf'j Yf[`Y]W\VUf\E']b'XYf'Yk Y]`][Yb
9]bf]W\h' b['V]g'ni a '%) "'HU['bUW\'XYa '9fghbUW\k Y]g"

A]h'XYb'5bdUggi b[Yb'k]fX'i bhYf'UbXYfYa 'Ui Z'X]Y'U_hi Y``
Ub[YgdUbbhY'G]hi Uh]cb']b'XYb'?`]b_Yb'fYU[]Yfh"'Jcb'XYf
5i gbU\a YfY[Y`i b['ni a 'HÀh][_Y]hgj YfVch'_Ubb'bi f'XUbb
; YVfUi W\[Ya UW\h'k YfXYbž'k Ybb'Ui Z[fi bX'XYg
DYfgcbU`a Ub[Y`g'X]Y'JYfgcf[i b['j cf'Cfh'b]W\h'a Y\f
[Yk À\f`Y]ghYh'k YfXYb'_Ubb"'8 UfØVYf'\]bUi g'k]fX'X]YgY
9]bnY`ZU``YbhgW\Y]Xi b['9]bf]W\hi b[Yb'Y]b[YfÀi a hž'X]Y'ØVYf'Y]bY
VYgcbXYfg'\c\Y'<m[]YbYYI dYfh]gY'j YfZØ[Yb"

7cfcbU!JYfcfXbi b[5VqcbXYfi b[

: fU[Yb'i bX'5bhk cfhYb'ni f'7cfcbU!=a dZi b[']b'6UXYb! K ØfhhYa VYf[

KY]hYfY ⇒b Zcfa Uh]cbYb ni a '7cfcbUj]fi g']b '6UXYb!K ØfhhYa VYf[

A]hii bgYfYa 'A YggYb[Yf!GYfj]WY'VY_ca a Yb'G]Y']a a Yf'U``Y \ddot{y} bXYfi b[Yb'i bX'k]W\h][Y' \Rightarrow Zcfa Uh]cbYb'U_hi Y``'U`g Di g\bUW\f]W\h'Ui Z' \Rightarrow f'A cV]`hY`YZcb"

8 YhU]`g

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