

: ÆhY`XY``U`A i g]ei Y`ZØf`>i [YbX`]W\Y.`>Yhnh Uba Y`XYb`ZØf`5i Zhf]hhg!7\UbW\°

8]Y'GhUXhfàh]b'ZØf' > [YbX'i bX'; Ygi bX\Y]hž'7Ufc`]bU'6Ò\a ž \UhmifHY]`bU\a Y`Ub`XYfX]Yg^A\f][Yb: ÆhY`XY``U`A i g]ei Y ZØf'; [YbX`]WXY'Ui Z[Yfi ZYb"'8]Y'JYfUbghU`hi b['Z]bXYh'Ua &%"\$*"&\$&('Ui Z'XYa '; Y`ÀbXY'XYf'≯[YbXZfY]nY]hY]bf]W\hi b[GWXchhYbVif[~]b~6Yf~]b~ghUhh"'>i=[YbXVUbXqž~1-[YbX~]WXY A i q]_Yf.]bbYb i bX HÀbnYf.]bbYb Ui g XYa 6Yn]f_ k YfXYb [Yqi W\hži a 'YfqhY'6Ø\bYbYfZU\fi b[Yb'ni 'qUa a Y`b'i bX'Ub XYf'JYfUbghU`hi b['hY]`ni bY\a Yb"'5``Y'; YbfYg'g]bX k]``_ca a Yb"'8]Y'5ba Y`Xi b['ZØf'X]Y'HY]`bU\a Y'a i gg'V]q ni a '%%"\$' "&\$&('VY]'HUbmU'X/ Ua d/, , &%+/5[cgh]bc']a k YfXYb "?cbhU_hXUhYbž"; YbfY]bZcfa Uh]cbYb i bX [Y[YVYbYbZU``g'JYf`]b_i b[Yb'ni '=bhYfbYhdfÀgYbnYb VYbOh][h"6Y]: fU[Yb'ghY\h'HUbmU'X/ Ua d/, , &%+/5[cgh]bc Ui WX hY Y Zcb]qWX ni f'J Y fZØ[i b["8]Y : ÆhY XY ``U'A i q]ei Y /Uad∧Y``]d/

8]Y'GhUXhfÀh]b'ZØf'\$ [YbX'i bX'; Ygi bX\Y]hž'7Ufc`]bU'6Ò\a ž\Uh
ni f'HY]`bU\a Y'Ub'XYf'X]Yg'À\f][Yb': ÆhY'XY'`U'A i g]ei Y'ZØf
\$\frac{1}{2}\text{bX}\]W\Y'Ui Z[Yfi ZYb"'8]Y'JYfUbghU`hi b['Z]bXYh'Ua '&\%"\$*"&\$&(Ui Z'XYa '; Y`ÀbXY'XYf'\$ [YbXZfY]nY]hY]bf]W\hi b['GW\chhYbVi f[']b
6Yf`]b'ghUhh"'\$ [YbXVUbXgž'^1 [YbX`]W\Y'A i g]_Yf.]bbYb'i bX
HÀbnYf.]bbYb'Ui g'XYa '6Yn]f_'k YfXYb'[Ygi W\hž'i a 'YfghY
6Ø\bYbYfZU\fi b[Yb'ni 'gUa a Y`b'i bX'Ub'XYf'JYfUbghU`hi b[
hY]`ni bY\a Yb"'5``Y'; YbfYg'g]bX'k]``_ca a Yb"

8]Y 5ba Y`Xi b['ZØf'X]Y 'HY]`bU\a Y 'a i gg'V]g'ni a '%%"\$' "&\$&('VY] HUbmU'X 5[cgh]bc']a '\$ [YbXUa h'GhY[`]hn!NY\`YbXcfZ'Y]b[YfY]W\h k YfXYb" 8 UZØf'k YfXYb'?cbhU_hXUhYbž'; YbfY]bZcfa Uh]cbYb'i bX [Y[YVYbYbZU``g'J Yf`]b_i b[Yb'ni '\DhYfbYhdf\AgYbnYb' VYb\Oh][h"'6Y] : fU[Yb'ghY\h'HUbmU'X 5[cgh]bc'Ui W\hY`YZcb]gW\ni f'J YfZØ[i b["

8]Y: ÆhY:XY:`U:Aig]eiY:]gh:Y]b:]bhYfbUh]cbU`Yg:Aig]_ZYghž:XUg
YXYg:\\J\f:Ua:\&\\":\id=b]:]b:nU\`fY]\\X\Yb:Gh\X\X\Yb:k\Y`hk\Y]\h
ghUhhZ]b\XYh":Ifgdf\Øb[`]\\X.']b::fUb_fY]\\X.']bg:@Y\Yb:[\Yfi\ZYb\ž:ZY]\Yfb
A\Ybg\\X\Yb:U``\Yf:5`\h\Yfg[fi\dd\Yb:X]\Y:Aig]_:]b:U```]\\f\Yb::U\\X\\h\Yb":8]\Y
J\YfUbghU`\hi\b[`]b:6\Yf`]b:\V]\Y\h\Y\h'\dd\[Yb\X`]\\X\Yb:X]\Y:A\\O[`]\\X_Y\h\ž:g]\\X\
_f\YUh]j:\Ui\gni\Xf\Ø_Y\b:\bX:\OZZ\Y\b\\`]\\X\\Ui\Zni\hf\Y\b"

I a 'X]Y'J]Y`ZU`h'XYf'Aig]_']b'XYf'FY[]cb'ni 'ZÒfXYfbž']gh'Yg'k]W\h][ž XUgg'1 b[Y'HU`YbhY'X]Y'7\UbW'Yf\U`hYbž']\fY'Aig]_'Y]bYa VfY]hYb'Di V`]_i a 'ni 'dfÀgYbh]YfYb"'8i fW\'X]Y'HY]`bU\a Y'Ub'XYf : ÆhY'XY'`U'Aig]ei Y'ZØf'¾[YbX`]W\Y'_ÒbbYb'g]Y'YfghY'9fZU\fi b[YbUi Z'XYf'6Ø\bY'gUa a Y`b'i bX'?cbhU_hY']b'XYf'Aig]_gnYbY_bØdZYb"

 $: \varnothing f' + b h Y f Y g g] Y f h Y 'V] Y h Y h 'X] Y 'Z c `[Y b X Y 'HUVY``Y 'Y] b Y b ', V Y f V `] W \\ \varnothing V Y f' X] Y 'k] W h h h j [g h Y b '+ b Z c f a Uh] c b Y b 'ni f': A h Y 'X Y '`U 'A i g] e i Y 'Z Ø f \\ \Rightarrow [Y b X `] W Y .$

i [YbX`]WXY'Aig]_Yf.]bbYb'i bX'HÀbnYf.]bbYb'Uig'XYa'6Yn]f_
\UVYb'gca]h'X]Y'AÔ[`]WX_Y]hž'Ub'Y]bYa'Y]bn][Ufh][Yb'9j Ybh
hY]`ni bY\a Yb'i bX']\fY'_Øbgh`Yf]gWXYb': À\][_Y]hYb'i bhYf'6Yk Y]g
ni 'ghY``Yb''K Yf'[YfbY'Ui Z'XYf'6Ø\bY'ghY\Yb'a ÒWXhY'i bX'gY]bY
Aig]_Y]bYa'VY[Y]ghYfhYb'Di V`]_i a'dfÀgYbh]YfYb'k]``ž'gc``hY'X]Y
; Y`Y[Yb\Y]h'bi hnYb'i bX'g]WX'ZØf'X]Y': ÆhY'XY'`U'Aig]ei Y
Uba Y`XYb"

6Ygi WXYb G]Y i bg Ui Z a Y]b!VYf]b bYh