

: !Hck b'?]W_Yfg'gWXY]hYfb']a FY`Y[Uh]cbgZ]bU`Y' '5i Zgh]Y['j YfdUggh'

:!Hck b'?]W_Yfg'j Yf`]YfYb'FY`Y[Uh]cb'[Y[Yb'8UfXUb]U'6UX 5]V`]b['%'']b'Dfi hh]b["'HfU]bYf'V`Y]Vhž'bYi Y'Gd]Y`Yf'g]bX [Yd`Ubh"



Dfi hh]b[ž8Yi hgWX`UbX`!5a 'A]hhk cWXUVYbX`ZUbX`Y]b
gdUbbYbXYg`FY`Y[Uh]cbggd]Y``ni f`6!?`UggY`]b`Dfi hh]b[`ghUhhžk c
X]Y`:!Hck b`?]W_Yfg`Ui g`:fY]`Ugg]b[`[Y[Yb`XYb`:7'8UfXUb]U`6UX
5]V`]b[`UbhfUhYb":Øf`X]Y`:!Hck b`?]W_Yfgž`X]Y`]b`XYf`j Yf[Ub[YbYb
GU]gcb`J]nYa Y]ghYf`XYf`:i»VU``!7!?`UggY`*`[Yk cfXYb`k UfYbž`k Uf
Yg`X]Y`7\UbW*ž`]b`X]Y`bÀWXgh\O\YfY`@][U`Ui Zni ghY][Yb"`8cWX`XUg
9f[YVb]g`Z]Y``YbhhÀi gWXYbX`Ui g.`G]Y`j Yf`cfYb`a]h`%'`"`K]Y`X]Y`
DBD`VYf]WXhYhži bhYfghØhnhYb`fi bX`%\$\$`Ni gWXUi Yf`X]Y`VY]XYb
HYUa gž`XUfi bhYf`Ui WX`A]WXUY``6Ui a Ubbž`XYf`Jcfg]hnYbXY`XYg
\Y]a]gWXYb`:i»VU``_fY]gYg"

 $8 \ Ug^{G}d]Y^{V}[Ubb^{a}]h^{Y}]bYa^{Z}f\emptyset Yb^{a}. \emptyset fib[ghfYZZYf^{Z}f^{G}f^{X}]Y^{a}; AghYUig^{G}UX^{5}]V^{b}[Ubb^{a}]h^{Y}]b^{A}Yf^{D}ZDYhY^{b}[Ubb^{A}]h^{A}Yf^{B}XYf^{A}, Ug^{A}]h^{A}Yb^{A}Yf^{A$

 $\label{thm:hcffy} Hcffy][YbiibXiY[hYiX]fY_hibUWXiXYfi< U`VnY]hia]hiY]bYaik Y]hYfYbHcfibUWXii$.&i]biXYfi(*"A]bihY"NibAWXghigWX]YbiYgžU`gik ØfXY8UfXUb]U`XUgiGd]Y`igcij YfAbi_cbhfc``]YfYb"'8cWXi9a]fi5fg`UbVfUWXhYiX]Y:!Hckbi?]W_YfgibifiXfY]iA]bihYbibUWXiXYainkY]hYbHcfia]higY]bYai5bgWX`igghfYZZYfinifØW_i]bgiGd]Y`if)-"iA]bihYt"8cWXiX]Yi<cZZbib[ikA\fhYib]WXhi`Ub[YžiXYbbi?ig\hf]ai8f]ai]6U/fU^ghY``hYi]biXYfi+, "iA]bihYiXYbiU`hYbi5VghUbXia]hiXYai%i'k]YXYfi\Yf"$

8]Y FY`Y[Uh]cb]a : c_i g

8]Y Ni _i bZh XYf:!Hck b?]W_Yfg

Hfchn XYf 9bhhài gW i b ['ØVYf XUg '9f [YVb]g nY] [h g] W 'A Y\a Yh : YhU 'Ž XYf 'J YfY] bgVcgg XYf : !Hck b '?] W_Yfgž dcg]h]j ' [Ygh]a a h" '9f _ØbX] [hY 'Ubž '] b 'XYf 'b À W ghYb 'GU]gcb 'b Yi Y 'Gd]Y 'Yf ni j Yfd Z] W hYbž _cbbhY 'YxcW 'bcW '_Y] b Y B Ua Yb 'b YbbYb" '5 i W HfU] b Yf '@f] '? fmYn]i 'k] fX 'X]Y 'A UbbgW UZh k Y]hYf\]b 'ZØ\fYbž XU : YhU ^\cZhž '] b 'XYf _ca a Yb XYb 'Gd]Y `nY]h 'X]Y 'F Y `Y [Uh]cb 'ni j Yfa Y] XYb"

8]Y'FY'Y[Uh]cbž'X]Y']b'X]YgYa :: U```j cb'GW\]YXgf]W\hYf'7\f]ghcd\Gd]hU`Y'[Y`Y]hYh'k i fXYž'gU\']bg[YgUa h'bYi b'[Y`VY'?UfhYbž XUfi bhYf'Ui W\'Y]bY'[Y`V!fchY'ZØf'XYb'HcfgW\ØhnYb'; Ug\]']b'XYf+*"'A]bi hY"'8]Y':!Hck b'?]W_Yfg'a ØggYb'U`gc'bUW\'X]YgYf'GU]gcb]\fY'N]Y`Y'bYi 'Ui gf]W\hYbž'k À\fYbX'8UfXUb]U'6UX'5]V`]b['a]hY]bYa 'VYgcbXYfYb'9fZc`[gYf`YVb]g']b'X]Y'bYi Y'Gd]Y`nY]h'[Y\Yb_Ubb"

8 Y hU]`g	
Cfh	Dfi hh]b[ž'8Yi hgWX`UbX
EiY``Yb	• k k k "dbd"XY
	• k k k "fcgYb\Y]a &("XY
	• XY"k]_]dYX]U"cf[

6Ygi WXYb G]Y i bg Ui Z. bU[!VUmYfb"XY