

@]``m'6YW_Yf'bUW\'8gW\ib[Y`g]Y[.'Gcgh\Af_h'g]Y']\fY'a YbhU`Y'; Ygi bX\Y]h°

@]``m'6YW_Yfž'Ua h]YfYbXY'8gW\i b[Y`_\Ob][]b'&\\$\) ž'gdf]W\h ØVYf'a YbhU`Y'; Ygi bX\Y]h'i bX']\fY'D`\AbY'Z\I fgcn]U`Y'\AYX]Yb bUW\']\fYa'\9fZc`["

8 gWX i b [Y`WUa dž8 Yi hgWX`Ub X`!'8]Y``YhnhYb`K cWXYb`k UfYb`ZØf@]``m'6YW_Yf'j cb`nU\`fY]WXYb'< O\Yb'i bX`H]YZYb'[YdfA[h"'K]Y`g]Y
Ui Z']\fYa '\perp ghU[fUa !5 WWci bh'a]hhY]`hYž\UhhY`g]WX`X]Y`(, !\perp A\f][Yž
X]Y`ni f`Ua h]YfYbXYb`8 gWXi b[Y`_Ob][]b`[Y__fObh'k i fXYž'Y]bY
5i gnY]h'[Ybca a Ybži a 'ZØf']\fY`a YbhU`Y`; Ygi bX\Y]h`ni 'gcf[Yb
i bX`]\fY`; YXUb_Yb`ni 'cfXbYb"'\perp Y]bYa 'J]XYc'j ca '%+"'A Afn
VYhcbhY`g]Y`X]Y`K]WXh][_Y]hž'g]WX`X]Y`9f`Ui Vb]g`ni '[YVYbž'Y]bZUWX
Xi fWX ni Uha Yb''' 8]Y``YhnhYb`K cWXYb`k UfYb`Y]b`YWXhYg`5i Z'i bX
5V ž'gc'6YW_Yf''A]h']\fYa 'G]Y['VY]' \\perp WX`V]b`Y]b`GhUf'' <c`h'a]WX
\]Yf`fUi g` '\Uh'g]Y`b]WXh'bi f'bYi Y': Ubg'[Yk cbbYbž'gcbXYfb`Ui WX
nU\`fY]WXY`BUWXf]WXhYb`Yf\U`hYbž'X]Y`ØVYfk A`h][YbX`ZØf'g]Y`g]bX''
: Øf'@]``m'gd]Y`h'A YX]hUh]cb`Y]bY`nYbhfU`Y`Fc``Y`]b`]\fYa '@YVYbž'i a
XYa 'ghfYgg][Yb`5``hU['ni 'Ybh_ca a Yb''

6YW_Yfg'Hf]i a d\']a '8gW\i b[Y`WUa d'&\$\&\) 'ghY``h'Y]bYb

VYXYi hYbXYb'K YbXYdi b_h']b']\fYf'? Uff]YfY'XUf"'G]Y'VYk]Yg

gck c\``_OfdYf`]W\Y'U`g'Ui W\'a YbhU`Y'GhAf_Y'k A\fYbX'XYf

<YfUi gZcfXYfi b[Yb'XYf'FYU`]hm!G\ck ž'X]Y'Ui Z'FH@'Ui g[YghfU\`h

k i fXY"'=\fYf'; YgW\]W_`]W_Y]h'i bX'Ya dUh\]gW\Yb'=\bhYfU_h]cb'a]h

UbXYfYb'HY]`bY\a Yfb'g]bX'a U\[YV`]W\ZØf']\fYb'9fZc`[

ni [YgW\f]YVYb'k cfXYb"'G]Y'a Y]ghYfhY'XYb'dgmW\]gW\Yb'8fi W_XYf

6YcVUW\hi b['i bX'XYb'd\mg]gW\Yb'GhfYgg'XYf'DfØZi b[Ybž'k Ug'ni

Y]bYfYbcfa Yb'GhY][Yfi b[']\fYf'6Y_Ubbh\Y]h'ZØ\fhY"

 $5igk]f_ib[YbXYg8gWib[Yg]Y[g]$

@]``m'6YW_Yf'_cbbhY'a]h']\fYa 'G]Y['b]W\h'bi f'X]Y'8gW\i b[Y`_fcbYYff]b[Ybž'gcbXYfb'Yf\]Y`h'Ui W\'X]Y'\ÒW\ghY'; U[Y'U``YfHY]`bY\a Yf' ']bg[YgUa h'') \$"\$\$\$'9i fc"'Ni gW\Ui Yf'gW\AhnhYb']\fY5i h\Ybh]n]h\Ah'i bX']\fYb'l a [Ub['a]h'XYb'<YfUi gZcfXYfi b[Ybžk Ug']\f'Y]bY'gc`]XY'6Ug]g'ZØf'ni _ØbZh][Y'Dfc'Y_hY'V]YhYh''8UfØVYf\]bUi g'Yf\OZbYhY'X]Y'Yf\O\hY'A YX]Ybdf\AgYbn'bYi Y'HØfYb']b'XYf I bhYf\U`hi b[gVfUbW\Y"

<]bhYf'XYb'?i`]ggYb'k Uf'X]Y'8 gW\i b[Y`!9bhk]W_`i b['YXcW\'b]W\h
]a a Yf'Y]bZUW\"'@]``m'a i gghY'g]W\'XYb'GhfYggZU_hcfYb'i bX'Y]b][Yb?cbZ]_hYb']a '7 Ua d'ghY``Ybž'k Ug'g]Y'U`g'hfUbgZcfa Uh]j Yg'9f`YVb]g
VYgW\fY]Vh"'8 Yf'; Yk]bb'_\ObbhY']\fY'? Uff]YfY'bUW\\U`h]['dcg]h]j
VYY]bZi ggYb'i bX'ni 'bYi Yb'A\O[`]W_Y]hYb']b': YfbgY\dfc Υ _hYb
cXYf'UbXYfYb'A YX]Yb'ZØ\fYb"'5`g'9I!: fUi 'j cb'6cf]g'6YW_Yf'Vf]b[h
g]Y'gck c\``JcfhY]`Y'U`g'Ui W\'<YfUi gZcfXYfi b[Yb'a]h'g]W\ž'X]Y']\fY
OZZYbh`]W\Yb'5i Zhf]hhY'i bX'A YX]YbghfUhY[]Y'VYhfYZZYb"</pre>

$K \]Wh][\ \underline{Y}]h \ XYf \ a \ YbhU \ Yb \ ; \ Ygi \ bX \ Y]h$

6YW_Yfg'9b[U[Ya Ybh'ZØf'X]Ya YbhU'Y'; Ygi bX\Y]h'i bX']\fY
C ZZYb\Y]h'ØVYf']\fY'< YfUi gZcfXYfi b[Yb'ghY\Yb'VY]gd]Y`\UZh'ZØf
X]Y'XYfnY]h][Y'8]g_i gg]cb'fi bX'i a 'dgmW\]gW\Y'; Ygi bX\Y]h'VY]
FYU`]hm\HJ!GhUfg"'Ÿ\b`]W\k]Y'GY`YbU'; ca Yn'i bX'8Ya]'@cj Uhc\UVYb'Ui W\g]Y'VYhcbhž'k]Y'k]W\h]['Yg']ghž'<]`ZY'ni 'gi W\Yb'i bX
dfc ZYgg]cbY``Yb'Gi ddcfh']b'5bgdfi W\ni 'bY\a Yb"'=\fY
9fZU\fi b[Yb'X]YbYb'b]W\h'bi f']\f'gY`Vghž'gcbXYfb'_ObbYb'Ui W\UbXYfYb'Ai h'a UW\Ybž']\fY'Y][YbYb'?Àa dZY'Ubni bY\a Yb'i bX
cZYb'XUfØVYf'ni 'gdfYW\Yb"'@]``m'6YW_Yf'd`Ubhž']\fY'9fZU\fi b[Yb
a]h']\fYf'7ca a i b]hm'ni 'hY]`Yb'i bX'XUVY]'dcg]h]j Y'=\U`hY'ni
V]YhYbž'kÀ\fYbX'g]Y']a a Yf'k]YXYf'Ui Z'X]Y'6YXYi hi b['j cb
GY`VqhZØfqcf[Y'\]bk Y]gh"

 $GhUfhgWX i gg^*ZØf^*Y]bY^*bY i Y^*\ddot{Y} fU^*]b^*] YfYf^*? Uff]YfY^*gY]bz^*X]Y^*gckcX^* XUg^*dYfgOb^*]WXY^*U^*g^*U i WX^*XUg^*VYf iZ^]WXY^*K UWXghi a ^*j cfUbhfY]Vh''$

8 YhU]`g	
J c f ZU``	Gcbgh][Yg
Cfh	8gWXib[Y`WUadž'8YihgWX`UbX
EiY``Yb	• k k k "[U`U"XY
	Ufhf]gU"Wca
	• k k k "ci fa YbhU`"\YU`h\

 $6\,Y\,gi\ W\!\!.\,Y\,b\,\,{}^.G]Y\,{}^.i\ b\,g\,{}^.Ui\ Z.\,\,{}^.b\,!\,U[\ "X\,Y\,$