

8]Y'[Y\Y]a Y'K Y`h'XYf'[Yghc\`YbYb]D\cbYg.'Jcb'@cbXcb'bUW\'G\Ybn\Yb



G\Ybn\Ybž'7\]bU'! = a Yf'a Y\f'[Yghc\`YbY']D\cbYg'Z]bXYb
]\fYb'K Y['bUWX'G\Ybn\Ybž'7\]bUž'k c g]Y']b'Y]bYa 'f]Yg][Yb
GWXUhhYba Uf_h'[Y\UbXY`h'k YfXYb"'9]b'6Yf]WXh'XYf':]bUbW]U`
H]a Yg'j YfZc`[h'X]Y'Fci hYbž'X]Y'X]YgY'[Yghc\`YbYb'; YfÀhY'j cb
GhÀXhYb'k]Y'@cbXcb'i bX'BYk 'Mcf_'V]g'ni 'XYb'A Àf_hYb']b
G\Ybn\Yb'bY\a Yb"'8]Y'A Yhfcdc`]hUb'Dc`]WY']b'@cbXcb'VYn]ZZYfh
XYb'A\f`]WXYb'GWXUXYb'Xi fWX'Ga Ufhd\cbY!8]YVghÀ\`Y'Ui Z'ZUgh
*\$'A]``]cbYb'9i fc"'<Ài Z][Y'8]YVghÀ\`Y'[YgWXY\Yb'Ui Z'cZZYbYf
GhfU»Yž'k]Y'XYf': U``Y]bYg'@cbXcbYf'I bhYfbY\a Yfg'nY][hž'XYggYb
]D\cbY'%)'Dfc'j cb'8]YVYb'Ui Z'9!6]_Yg'Ybhk YbXYh'k i fXY"'=b'Y]bYf
Dc`]nY]U_h]cb']a ': YVfi Uf'&\$&)'k i fXYb'ØVYf'%"\$\$\$'[Yghc\`YbY

 $\begin{array}{l} <\text{cb[_cb[``\Uhig]W\&`U`g`nYbhfU`Yg`8fY_fYi n`ZØf`XYb`]``Y[U`Yb] } \\ \text{D\cbY!} <\text{UbXY``YhUV`]Yfh"; Yghc\`YbY`]D\cbYg`[Y`Ub[Yb`Xcfh`ØVYf: `i [[YdÀW_ž'?i f]YfX]YbghY`cXYf': fUW\h`Ub`i bX`k YfXYb`]b`Y]bYa \\ \text{\pmXi ghf]Y\cW\Ui g`]b`?ki b`Hcb[`gcfh]Yfh"8]Y`<ÅbX`Yf.]bbYb \\ \text{$_$UhY[cf]g]YfYb`X]Y`; YfÀhY`Y`bUW\`]\fYa `GhUhi gž`k cVY] \\ \text{\botbhYfgW\Y]Xi b[Yb`nk]gW\Yb`gc`W\Yb`a]h`cXYf`c\bY \\ \text{\pmXYbh]Z]_Uh]cbgbi a a Yf`[YhfcZZYb`k YfXYb"`CVk c\``XYf'<UbXY``a]h \\ \text{$[YVfUi W\hYb`Ga Ufhd\cbYg`]b`<cb[_cb[`Zcfa U```Y[U``]ghž`k]fX`X]Y \\ \text{$?cbhfc``Y`Xi fW\X]YgY`; YgYhn[YVi b[`YfgW\kYfh"} \\ \end{array}$

8Yf'U`g'fUi 'Ub[YgY\YbYb'A Uf_h'jcb G\Ybn\Yb

± 'G\Ybn\Ybž'j cf'U``Ya ']a '<i Ue]Ub[VY]!8]ghf]_hž'k YfXYb
[Yghc\`YbY']D\cbYg'cZh'nYf`Y[h'i bX']b'9]bnY`hY]`Y'j Yf_Ui Zh"'9]b
VY_UbbhYf'Cfh'ZØf'X]YgYb']``Y[U`Yb'<UbXY``]gh'XUg': Y]mUb['H]a Yg
6i]`X]b["'GY`Vgh']7`ci X![YgdYffhY']D\cbYg'\UVYb'\]Yf'Y]bYb
A Uf_hk Yfhž'XU']\fY'9]bnY`hY]`Y'k Y]hYf\]b'[Ybi hnh'k YfXYb'_ÒbbYb"
<ÀbX`Yf.]bbYb'j Yfgi W\Yb'[Y`Y[Ybh`]W\ž'X]Y']7`ci X!GdYffY'ni
i a [Y\Ybž']bXYa 'g]Y'a]h'XYb'fYW\ha À»][Yb'9][YbhØa Yf.]bbYb
?cbhU_h'Ui ZbY\a Yb"

8]Y'6Y\ÒfXYb']b'G\Ybn\Yb'\UVYb'Ui Z'X]YgYb'dfcV'Ya Uh]gW\Yb < UbXY``a]h'F Unn]Yb'i bX'?cbhfc``Yb'fYU[]Yfhž'YXcW\']gh'XYf
]``Y[U`Y'A Uf_h'bUW\'k]Y'j cf'U_h]j "'+b'X]YgYa 'Ni gUa a Yb\Ub[k YfXYb'Ui W\': fU[Yb'ni '9`Y_hfcb]_gW\fchh'i bX'XYb'XUa]h
j YfVi bXYbYb'I a k Y`hZc`[Yb'`Ui h"

9a dZY\`i b[Yb'ZØf'VYhfcZZYbY'Bi hnYf.]bbYb

: Øf Bi hnYf.]bbYb'j cb']D\cbYg'i bX']DUXg']gh'Yg'VYgcbXYfg'k]W\h][žg]W\']a :: U``'Y]bYg'8]YVghU\`g'gcZcfh'ni 'gW\ØhnYb"'5dd`Y'Ya dZ]Y\`hžXUg'; YfÀh'i a [Y\YbX']b'XYb'A cXi g' JYf`cfYb 'ni 'j YfgYhnYb"'8Ug j Yf\]bXYfh'XYb'Ni [f]ZZ'j cb'8]YVYb'i bX'gW\Øhnh'XYb'5dd`Y 5WWci bh'j cf'i bYfk ØbgW\hYb'JYfÀbXYfi b[Yb"'9]b'Ni [f]ZZ'Ui Z

]7`ci X"Wca #Z]bX`]gh`bÒh][ži a `XUg`VYhfcZZYbY`; YfÀh`U`g`j Yf`cfYb
ni 'a Uf_]YfYb"'8]Y`5_h]j]Yfi b[`XYf` K c`]gh3 !: i b_h]cb`V]YhYh
ni gÀhn`]WXYb`GWXi hnž`XYbb`c\bY`X]YgY`5_h]j]Yfi b[`_Ubb`XUg
; YfÀh`b]WXh``c_U`]g]Yfh`cXYf`U`g`j Yf`cfYb`[Ya Y`XYh`k YfXYb"

Ni gÀhn`]W\ 'gc``hYb'Bi hnYf.]bbYb']\f'5dd`Y'5W\ci bh'DUggk cfh i a [Y\YbX'ÀbXYfb'i bX'X]Y'Òfh`]\W\Y'Dc`]nY]'VYbU\\f\f]\W\h][Yb" Gc``hY'XUg']D\cbY'a]h'5dd`Y7UfYŽ'j Yfg]\W\Yfh'gY]bž']gh'Yg'k]\W\h][ž\XUg'; YfÀh'b]\W\h'Ui g'XYa '5dd`Y'5\W\ci bh'ni 'Ybh\ZYfbYbž'V]g'Y]b G\W\UXYbg\Ub\gdfi \W\'[YbY\a][h'k]fX\"'9g'Ya d\Z]Y\`h'g]\W\'Ui \W\ž'XYb A cV]`\Zi b_\Ub\V]Yh\Yf\ØV\Yf'X\Yb'J cf\ZU``'ni ']b\Zcfa]\Yf\b\ž'i a '\X\Yb 5\W\ci bh'ni 'gd\Yff\b'i b\X'\Y]b\Yb'5bgdfi \W\'Y]bni f\Y]\W\Yb"

8 Yf' < UbXY``a]h'[Yghc\`YbYb']D\cbYg'V`Y]Vh'Y]b'Yf\YV`]W\Yg
DfcV`Ya 'ZØf' < YfghY``Yf'i bX'GhfUZj YfZc`[i b[gVY\ÒfXYb"'Gck c\`
X]Y'X][]hU`Y'?ca a i b]_Uh]cb'ØVYf'D`UhhZcfa Yb'k]Y'K Y7\Uhii bX
K\Uhg5dd'U`g'Ui W\'XUg': Y\`Yb'ghfYb[YfYf'?cbhfc``Yb'ZÒfXYfb
X]YgYb']``Y[U`Yb'A Uf_h"

: $\emptyset f'k Y]hYfY' + Zcfa Uh]cbYb'ni 'XYb'Ya dZc\`YbYb'GWXf]hhYb'VY] 8]YVghU\`'Y]bYg']D\cbYg'cXYf']DUXg'VYgi WXYb'G]Y'V]hhY'X]Y cZZ]n]Y``Y'GY]hY'j cb'5dd`Y'Gi ddcfh"$

Ni gÀhn`]W\Y'\=bZcfa Uh]cbYb'\ØVYf'\X]Y'GW\UhhYb\k]fhgW\UZh']b G\Ybn\Yb'i b\X'\XYb']``\Y[U`\Yb'\< Ub\XY``a]h'[\Yghc\`\YbYb']D\cb\Yg \Z]b\X\Yb'\G]Y']b'\X\Ya '\5fh]_\Y`'j cb'\h'\b''

8 Y hU]`g	
Cfh	G\Ybn\Ybž'7\]bU
EiY``Yb	• h' b"XY
	• gi ddcfh"Udd`Y"Wca

6 Ygi WX Yb G]Y i bg Ui Z Y]bY!fY]gY "XY