

Jcb XYf K Y\fdZ`]W h ni f N]j]`X]Ybgh. Hca ; Øbh\Yfg VYk Y[hY; YgW]W hY

9fZU\fYb'G]Yž'k]Y'Hca'; Øbh\Yf'%-, %
?f]Y[gX]Ybghj Yfk Y][Yfi b['VYUbhfU[hY'i bX'gY]bY
<YfUi gZcfXYfi b[Yb']b'6Yf`]b'Yf`YVhY"



6Yf`]bž8Yi hgWX`UbX'!'5a '&, "'A U]'&\$&) 'Ybhgcf[hY'XYf'ZUgh
*'!A\f][Y'Hca'; Øbh\Yf'U`hY'8c_i a YbhYž'XUfi bhYf'Y]bYb
AighYfi b[gVYgWXY]X'Ui g'XYa '&J\f'%-, %'gck]Y'Y]bYb'5bhfU['Ui Z
?f]Y[gX]Ybghj Yfk Y][Yfi b["'8]YgY'<UbX`i b[Yb'g]bX'ZØf']\b'Y]b
HY]`'XYf'FYZYI]cb'ØVYf'gY]bY'JYf[Ub[Yb\Y]h''; Øbh\Yf
j Yfk Y][YfhY'XYb'A]`]hÀfX]Ybgh'i bX'k c``hY'ghUhhXYggYb'N]j]`X]Ybgh
Y]ghYb"'8]Yg'k Uf'YXcWX'_Y]b'Y]bZUWXYf'DfcnYggž'XU'X]Y'6Y\ÒfXYb
]\a'j]Y`Y'<ØfXYb']b'XYb'K Y['ghY``hYb"'9f'VYgWXfY]Vh'gY]bY
9fZU\fi b[Yb'a]h'XYf'6i bXYgk Y\f'i bX'XYb'6Y\ÒfXYb'U`g'Ui hcf]hÀf
i bX'i b[YfYWXhžk Ug'X]Y'[YgY``gWXUZh`]WXY5_nYdhUbn'j cb
K Y\fX]Ybghj Yfk Y][Yfb']b'8Yi hgWX`UbX'gd]Y[Y`hž'X]Y'Yfgh'UV'XYb
%-+\$Yf'\J\fYb'ni bU\a

GY]b 5bhfU['Ui Z'?f]Y[gX]Ybghj Yfk Y][Yfi b['ghY``hY 'Yf'VYfY]hg %-, \$"'6Y] XYf'A i ghYfi b[']a '?fY]gk Y\fYfgUhnUa h']b < Ubbcj Yf gU\ 'Yf'g]WX 'VYgWX]a dZYbXYb 'Ÿi » Yfi b[Yb 'Ui g[YgYhnh" 'Hfc hn 'XYf dc`]h]gWX Yb 'I a ghÀbXY i bX 'XYg'J]Yf!A ÀWX hY!GhUhi g'Yf\]Y`h; Øbh\Yf'GWX fY]VYb 'XYf'K Y\fVYfY]WX gj Yfk U`hi b[ž'X]Y']b bYi hfU`Yb 'I a gWX`À[Yb j YfgWX]W_h'k i fXYb"'I a '[Y[Yb 'X]YgY i bUb[Ya YggYbY' < UbX\UVi b['ni 'dfchYgh]YfYbž'k UbXhY 'Yf'g]WX gWX`]Y»`]WX 'Ub 'X]Y 'gck 'Yh]gWX Y'6chgWX UZh']b 'C gh!6Yf`]b"'B UWX 'XYf K YbXYž'U`g'Yf'VYfY]hg'Y]b '< cWX gWX i `ghi X]i a 'UV[YgWX `cggYb\UhhYž'Yf\]Y`h'Yf'YfbYi h'Dcgh'j ca '?fY]gk Y\fYfgUhnUa hž'XUg'a]h Y]bYf'Xfc\YbXYb'9]bVYfi Z b['V]g'ni 'gY]bYa '' &"'@YVYbg'U\fUi Zk UfhYhY"

8Yf``Ub[Y'K Y['nif'5bYf_Ybbib[

8]YgY'9fZU\fi b[Yb'fYZY_h]YfYb'X]Y'fYW\h']W\Yb
FU\a YbVYX]b[i b[Yb'XYf'?f]Y[gX]Ybghj Yfk Y][Yfi b[']b
8Yi hgW\'UbXž'X]Y'Xi fW\'5fh]_Y\'%\U'XYg'; fi bX[YgYhnYg'[YfY[Y`hg]bX"'8]YgYg'VYgU[hž'XUgg'b]Ya UbX'[Y[Yb'gY]b'; Yk]ggYb'ni a
?f]Y[gX]Ybgh'[Ynk i b[Yb'k YfXYb'XUfZ''5i W\'k Ybb'X]Y
6i bXYgfYdi V`]_'8Yi hgW\`UbX'%-(-'U`g'YfghYf'GhUUh'X]YgYa 'FYW\hJYfZUggi b[gfUb['Y]bfÀi a hYž'a i gghYb'K Y\fX]Ybghj Yfk Y][YfYf'V]g
%-,'']\fY'; Yk]ggYbg[fØbXY'j cf'Y]bYa 'DfØZi b[gUi ggW\i gg

; YgY``gW\UZh`]W\Y'5_nYdhUbn'i bX'U_hi Y``Y 9bhk]W_`i b[Yb

8]Y'5i ggYhni b['XYf'K Y\fdZ]W\h']a '\\J\f'&\\$\%'Z\\hY'ni a '\9bXY XYg'N]j]'X]YbghYgž'k Ug'b]W\h'bi f'X]Y'K Y\fX]Ybghj Yfk Y][YfYfž gcbXYfb'Ui W\X]Y'gcn]U`Yb'9]bf]W\hi b[Ybž'X]Y'j cb'X]YgYb i bhYfgh\(\Omega\hat{Phhhhk}\ki\fXYb\Z'j\cf'bYi\Y'<\YfUi\gZcfXYfi\b[Yb'ghY``hY'' \
K\\A\fYbX'\ØVYf'&\Z') 'A]``]cbYb''\hb[Y'A \\AbbYf'U`\g\N]j]`X]Ybgh`Y]ghYbXY'h\\hat{h}]['k UfYb\Z'V`]YVYb''J\Yfk\Y][YfYf'`\Ub[Y'NY]h [YgY``\gW\UZh`]W\Y'5i \rightarrow\hygY]hYf'''\\D'XYb'`\YhnhYb'\\J\fYb'[UV'Yg\YcW\'Y]bY'BYi\VYk\Yfhi\b[\Z'k\cVY]'N]j]`X]Ybgh`Y]ghYbXY\ni\bY\a\YbX'U`\g'k\Yfhj\c``Y'I\bhYfgh\(\Omega\hat{Phhhi\b}\b)[']a 'Gcn]U`k\YgYb\UbYf_Ubbh'k\YfXYb''

 $8]Y fYWW h`]WW Yb FU\a YbVYX]b[i b[Yb g]bX gY]hXYf FYZcfa `&$$(k Y]h[Y\YbX`i bj YfAbXYfh [YV`]YVYb"' $\div hYfYgg]YfhY '_\ObbYb YXYfnY]hY]bYb '5bhfU['Ui Z'?f]Y[gX]Ybghj Yfk Y][Yfi b['ghY``Ybž Ui WX 'k A\fYbX 'XYg'U_h]j Yb 'K Y\fX]YbghYgž'i bX 'k YfXYb 'Xi fWW Cf[Ub]gUh]cbYb 'k]Y 'X]Y '8 Yi hgWX Y': f]YXYbg[YgY``gWX UZh i bhYfghØhnh" '5b[Yg]WW hg 'XYf [Ycdc`]h]gWX Yb 'GdUbbi b[Yb'[UV 'Yg U``Y]b']a '$\div \X\ &\& Y]bYb '5bgh]Y['XYf '5bhfA[Y'Ui Z'?f]Y[gX]Ybghj Yfk Y][Yfi b["' =a '\div \X\ f'&\& \&' k i fXYb 'VYfY]hg'%"* +& 5bhfA[Y'fY[]ghf]Yfhž'k Ug'nY][hž'XUgg'X]Y'H\Ya Uh]_'Ui WX '\Yi hYbcWX'j cb'[fc YfFY`Yj Ubn']gh"$

Hca ; Øbh\Yf'd`Ubhž'X]Y'U`hYb'A i ghYfi b[gf]W\h`]b]Yb'ZØf'gY]bYb%-!'À\f][Yb'Gc\b'Ui Zni VYk U\fYb"'=b'gY]bYb', VYf`Y[i b[Ybgd]Y[Y`h'g]W\X]Y'=XYY'k]XYfž'XUgg'X]Y'5i gY]bUbXYfgYhni b['a]hXYa 'H\Ya U'K Y\fX]Ybghj Yfk Y][Yfi b['i bX'X]Y'XUa]hj YfVi bXYbYb'[YgY``gW\UZh`]W\Yb'JYfAbXYfi b[Yb'Ui W\']bni _ØbZh][Yb'; YbYfUh]cbYb'k]W\h]['V`Y]VYb'gc``hY''

8 Y hU]`g	
Cfh	6Yf`]bž'8Yi hgWX`UbX
EiY``Yb	• k k k "VYf`]bYf!nY]hi b["XY
	• k k k "VdV"XY
	• XY"k]_]dYX]U"cf[

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