

? Ua dZi a 'XYb 'Hci f]ga i g. 'A U``cfWU'gYhnh Ui Z'; UghZfYi bXgWX UZh°

5_h]j]ghYb'dfchYgh]YfYb'[Y[Yb'Hcif]gaig'UiZ'AU``cfWUžkÀ\fYbX'<chY`jYfVUbX'a]h'?UadU[bY'ZØf'; UghZfYibXgW\UZhk]fVh"



DU`a Už'GdUb]Yb'! *\pa]hhYb'hi fVi `Ybh'[YZØ\fhYf'8 YVUhhYb'ØVYf X]Y'F c``Y'XYg'Hci f]ga i g'Ui Z'A U``cfWU'gYhnh'X]Y' < chY``Yf]Y'Y]b dcg]h]j Yg'NY]W\Yb'ZØf'; UghZfYi bXgW\UZh"8]Y'`]b_gfUX]_U`Y \[\frac{1}{2}\text{YbXcf[Ub]gUh]cb'5ffUb'\Uh'a]h'U[[fYgg]j Yb'5_h]cbYb'[Y[Yb XYb'Hci f]ga i g'ZØf'GW\`U[nY]`Yb'[Ygcf[hž'XUfi bhYf'5b[f]ZZY'Ui Z X]Y'6U`YUfYb!FY[]Yfi b['i bX'XUg'JYfVfYbbYb'j cb': chcg VY_UbbhYf' < chY`]Yf!A]hUfVY]hYf"8]YgY'J cfZA``Y'\UVYb'XYb < chY`j YfVUbX'XYf'\pagY`Z'X]Y': 9 < A Z'XUni 'j YfUb`Ugghz'Y]bY Y]b`UXYbXY'? Ua dU[bY']bg'@YVYb'ni 'fi ZYbZ'X]Y'XUg'5bg]bbYb'\Uhz X]Y'K YfhgW\Ahni b['ZØf'Hci f]ghYb']b'XYb'J cfXYf[fi bX'ni 'ghY``Yb'' A U``cfWU'A U[Un]b'VYf]W\hYhz'XUgg'XUg'A chhc'X]YgYf'\pag\h]h]Uh]j Y`Ui hYh' Hci f]ghz'[c'\ca Y'\Uddm"'6Y'\Udd]Yf'fYhi fb]b['hc A U``cfWU'gccb" '8]Yg']ghY]bY'_fYUh]j Y'I a XYi hi b['XYg'G`c[Ubg

8]Y?Ua dU[bYk]fXcZ]n]Y``Ua '_ca a YbXYb'AcbhU['jcf'XYa?cb[fYggdU`Ugh']b'DU`a U'jcf[YghY``hi bX'Z]bXYhžk]Y'XYf':9<A!
DfÀg]XYbh'Jj]Yf'J]WX'VYhcbhž'UiZ[fi bX'Y]bYg'Zf]gWX
Uig[Y\UbXY`hYb'HUf]Z]YfhfU[Yg'ZØf'XUg'<chY`!'ibX';Ugh[YkYfVY]\fYb'I fgdfi b["'J]WX'WXUfU_hYf]g]Yfh'X]YgYb'U`g'XYb'VYghYb
HUf]Z]YfhfU['GdUb]Ybg'ibX'VYhcbh'X]Y']a a YbgY'6YXYi hib['XYgHcif]ga ig'ZØf'X]Y'GWXUZZib['jcb'&')"\$\$\$'5fVY]hgd`AhnYb'UiZ'XYf
D`U_UhY'Ub'&\$'ghfUhY[]gWXYb'Dib_hYb'UiZ'XYf'D`U_UhY'Ub'&\$'ghfUhY[]gWXYb'Dib_hYb'UiZ'XYf'D`U_UhY'Ub'&\$'ghfUhY[]gWXYb'Dib_hYb'UiZ'XYf'DY'gck]Y'D`U_UhY'Ub'\\$\$'ghfUhY[]gWXYb'Dib_hYb'UiZ'XYf'DY'gck]Y'D`U_UhY'Ub'\\$\$'ghfUhY[]gWXYb'Dib_hYb'UiZ'XYf'DY'yf'bfY]hYbZ'YgbYY'gck]Y'D`U_UhY'Ub'\\$\$'ghfUhY[]gWXYb'Dib_hYb'UiZ'XYf'DY'YgYbYf'6f]YZ

9]b\U`hi b[j cb K YfhYb]a 'Hci f]ga i g

8 c W X]Y C ZZY bg]j Y ZØf Y]b dcg]h]j Yg 6] X j cb A U``cfWU [Y\h'ØVYf X]Y 8 Ub_YgVY_i bXi b[Yb'\]bUi g" = a Yf a Y\f' < chY`g gYhnYb Ui Z Y]bYb VYk i gghYb i bX bUW\\U`h][Yb Hci f]ga i gž XYf XUg i fgdfØb[`]W\Y A U``cfWU]b XYb : c_i g fØW_h" Gc gdf]W\h'XYf 5fh]_Y` j cb J]Yk A U``cfWU ØVYf i a k Y`hZfYi bX`]W\Y < chY`gž X]Y j YfUbhk cfhi b[gj c``Yg FY]gYb bYi XYZ]b]YfYb "'9]b \YfUi gfU[YbXYg 6Y]gd]Y``XUZØf]gh XUg bUW\\U`h][Y < chY` 9Wc W]fYf]b Gï ``Yf" = b Y]bYa ``]YVYj c```fYghUi f]YfhYb Ghi a a _]bc V]YhYh XUg < chY` Y]bYb d ZUbnYbVUg]YfhYb @YVYbggh]`ž XYf a]h Y]bYa 'ghUf_Yb : c_i g Ui Z B UW\\U`h][_Y]h'i bX``c_U`Y DfcXi _hY j YfVi bXYb]gh"

8 Ugʻ?cbnYdhʻY]bYgʻ [Ygi bXYbʻ5i ZYbh\U`hgʻi a ZUgghʻb]W\hʻbi fʻX]Y fYggci fWbgW\cbYbXYʻBi hni b[žʻgcbXYfbʻUi W\ʻ9`Ya YbhYʻk]Y 6]cX]j Yfg]hÀhʻi bXʻ[YgY``gW\UZh`]W\YʻJ YfUbhk cfhi b["8 UgʻhÀ[`]W\Y dZUbn`]W\Yʻ: fØ\ghØW_žʻXUgʻa]hʻNi hUhYbʻUi gʻXYaʻ\Ui gY][YbYb; UfhYbʻi bXʻj cbʻ`c_U`Ybʻ@UbXk]fhYbʻni VYfY]hYhʻk]fXžʻ]ghʻY]b 6Yk Y]gʻXUZØfžʻXUggʻBUW\U`h][_Y]hʻi bXʻ; Ybi ggʻ<UbXʻ]bʻ<UbX [Y\Ybʻ_ObbYb"·6½fVUfUʻA UfhÉz'Y]bYʻXYfʻ6YhfY]VYf]bbYbžʻVYfY]hYh j]Y`YʻXYfʻ: fØ\ghØW_gUb[YVchYʻdYfgOb`]W\`ni ii bXʻ`Y[h'VYgcbXYfYb K Yfh'Ui ZʻgU]gcbUʻYʻi bX'V]c`c[]gW\YʻNi hUhYb"

G]WXYfY'8UhYb'i bX'Df]j Uhgd\ÀfY

± Y]bYf'NY]hž']b'XYf'; UghZfYi bXgW\UZh'i bX'XUg'J YfhfUi Yb']b'XYbGYfj]W'j cb'[fò» hYf'6YXYi hi b['g]bXž']gh'Ui W\'XYf'GW\i hndYfgÒb`]W\Yf'8UhYb'Y]b'k]W\h][Yg'H\YaU": 9< A']bZcfa]Yfhi a ZUggYbX'ØVYf'XYb'g]W\YfYb'I a [Ub['a]h'Bi hnYfXUhYb'i bX'X]YHfUbgdUfYbn']b'XYf'8UhYbgdY]W\Yfi b["'8UVY]'k]fX'_`Ufž'XUggdYfgÒb`]W\Y'±bZcfaUh]cbYb'bi f'a]h'Ni gh]a a i b['XYf'Bi hnYf['YgUa a Y`h'k YfXYb'i bX'i bhYf'ghfYb[Yb'G]W\Yf\Y]hgaU» bU\aYbj YfUfVY]hYh'k YfXYb"'8]Y'Bi hnYf'\UVYb'XUg'FYW\hž']\fY'8UhYbY Y]bni gY\Yb'i bX'ni 'ÀbXYfbž'k Ug'Y]bY'k Y]hYfY'8]a Ybg]cb'XYg JYfhfUi Ybg']b'X]Y'8]Ybgh'Y]ghi b[gVfUbW\Y'XUfghY``h"

 $\label{eq:continuous} 5 \mbox{VgWX `]Y `> Yb X ``Aggh`g]WX `gU[Yb ž`X Ugg`A U``cfWU`g]WX `]b`X]YgYb hi fVi `Yb hYb`NY]hYb`Xi fWX `Y]bY`_`UfY`6c hgWX UZh`XYg`K]``_ca a Ybg i bX`XYf`B UWX \ U`h][_Y]h`dcg]h]cb]Yfh"`8]Y`<chY``Yf]Y`nY][h`g]WX gck c\``XUb_VUf`[Y[YbØVYf`]\ fYb`; AghYb`U`g`Ui WX`Yb[U[]Yfh`ZØf Y]bY`VYk i gghYž`i a k Y`hZfYi bX`]WXY`5fh`XYg`FY]gYbg` `Y]b`GWXf]hh]b`X]Y`f]WX h][Y`F]WX hi b[`ZØf`X]Y`Ni _i bZh`XYf`6U`YUfYb"$

8 Y hU]`g	
Cfh	DU`a Už'GdUb]Yb
EiY``Yb	• k k k "a U``cfWUa U[Un]b"Wca
	• k k k "ZY\a "]b Zc
	• k k k "j]Y k a U``cfWU"Wca

6Ygi WXYb'G]Y'i bg'Ui Z.'i bgYfY!\chY`g"XY