

J]YfhYg 7 mVYf GYW f]hm: cfi a

8 Y f ?? f]Y []b XY f I _fU]b Y n Y][hž X U gg ? f]Y [Y \ Y i hni h U [Y U i W cb]b Y [Y ZØ\ f h k Y f X Y b " 8 U g j] Y f h Y 7 m Y f G Y W f]hm c f i a 'k]X a Y h Y g] W X U \ Y f X Y a 'H \ Y a U 8][]h U Y 'G c i j Y f h b]h h h "= a 'F U \ a Y b 'X Y f 'J Y f U b gh U h i b ['k i f X Y U i W X Y f G] W Y f \ Y]h g d f Y]g & & & j Y f]Y \ Y b " 8 Y f ? f]Y [']b X Y f I _f U]b Y 'n Y][h i b g [U b n Y]b X Y i h]['i b X 'g W c b i b [g `c g ž X U g g ? f]Y [Y \ Y i h Y 'U i W c b `]b Y [Y ZØ \ f h k Y f X Y b " 7 m Y Y f U b [f] Z Y ž D f c d U [U b X U i b X 8 Y g]b Z c f a U h] c b 'g]b X 'H Y] ` X] Y g Y g '? f]Y [Y g " 8 U [Y [Y b 'a Ø g g Y b 'k] f i b g 'k U d d b Y b ž i b X 'X U g 'V Y X Y i h Y h ž X U g g 'k] f 'n i _Ø b Z h]['b] W h b i f 'h Y f f] h c f] U `Y 'G c i j Y f A b]h A h ž g c b X Y f b 'U i W X] []h U Y 'G c i j Y f A b]h A h g] W Y f g h Y ``Y b 'a Ø g g Y b " ; Y b U i X U a]h V Y g W A Z h] [Y b 'k] f i b g 'V Y] a 'X] Y g 'A \ f] [Y b : c f i a '7 m V Y f g] W Y f \ Y] h z X Y b b 'X Y f 'k] W h] [g h Y '6 U i g h Y] b 'X Y f 'm V Y f g] W Y f \ Y] h z X Y b b 'X Y f 'k] W h] [g h Y '6 U i g h Y `] d /

8 Yf??f]Y[']b'XYf'I _fU]bY'nY][hžXUgg'?f]Y[Y'\Yi hni hU[Y Ui WX'cb`]bY'[YZØ\fh'k YfXYb"'8 Ug'j]YfhY 7 mVYfGYW'f]hm cfi a 'k]Xa YhY'g]WX'XU\Yf'XYa 'H\Ya U 8][]hU`Y'Gci j YfÀb]hÀh"'=a 'F U\a Yb'XYf'J YfUbghU`hi b[kifXY'Ui WX'XYf'G]WXYf\Y]hgdfY]g'&\$&&'j Yf`]Y\Yb"'

8 Yf??f]Y[']b'XYf'I _fU]bY'nY][h'i bg'[Ubn'Y]bXYi h]['i bX
gWkcbi b[g`cgž'XUgg'?f]Y[Y'\Yi hY'Ui Wk'cb`]bY'[YZØ\fh'k YfXYb"
7 mVYfUb[f]ZZYž'DfcdU[UbXU'i bX'8 Yg]bZcfa Uh]cb'g]bX'HY]`'X]YgYg
?f]Y[Yg"'8 U[Y[Yb'a ØggYb'k]f'i bg'k UddbYbž'i bX'XUg'VYXYi hYhž
XUgg'k]f'ni _ØbZh]['b]Wkh'bi f'hYff]hcf]U'Y'Gci j YfÀb]hÀhž'gcbXYfb
Ui Wk'X][]hU'Y'Gci j YfÀb]hÀh'g]WkYfghY``Yb'a ØggYb"; YbUi 'XUa]h
VYgWkÀZh][Yb'k]f'i bg'VY]a 'X]Yg'À\f][Yb':cfi a '7 mVYfg]WkYf\Y]hž
XYbb'XYf'k]Wkh][ghY'6Ui ghY]b'XYf'7 mVYfg]WkYf\Y]h']gh'X]Y
DfÀj Ybh]cb ž'gc'XYf'ghY``j YfhfYhYbXY'A]b]ghYfdfÀg]XYbh'i bX

\$\DYba]b\ghYf'H\ca Ug'GhfcVY``6Y]'XYf'J]YfhYg'7 mVYf

8]Y '7 cfc b U! D U b XY a]Y 'k U f 'Y] b 'G W i V 'ZØf 'X]Y '8][]hU`]g]Y fi b ["'8 Y f ? f]Y['] b 'XY f 'I _ f U] b Y 'Y] b '6 Y g W 'Y i b][Y f 'U i W '] a 'B Y h n "'G] W Y f \Y] h ž GY 'V g h V Y g h]a a i b ['i b X 'I b U V \ À b [][_Y] h '] b 'XY f 'X][]h U 'Y b 'K Y `h ž _ i f n i a . '8][]h U 'Y 'G c i j Y f À b] h À h '] g h XY f n Y] b Y g 'XY f 'n Y b h f U 'Y b H \Ya Y b 'i b X 'g h Y \ h '] a 'A]h h Y `d i b _ h i b g Y f Y g 'j] Y f h Y b '7 m V Y f 'G Y W f] h m : c f i a g ž 'g U [h Y 'A] b] g h Y f 'H \ ca Ug 'G h f c V '" '8 Ug '[Y \ h 'b i f '8][]h U `Y I b U V \ À b [][_Y] h Y f f Y] W Y b ž 'k Y b b 'G h U U h ž 'K] f h g W U Z h ž : c f g W i b [i b X '; Y g Y ``g W U Z h 'U b 'Y] b Y a 'G h f U b ['n] Y \ Y b . '8 U n i 'a i g g 'i b g Y f @ U b X g Y] b Y 'h Y W \ b c `c [] g W Y b '? Y f b _ c a d Y h Y b n Y b 'V Ø b X Y `b 'i b X k Y] h Y f Y b h k] W _Y `b ž 'g c 'A] b] g h Y f 'H \ ca Ug 'G h f c V `"

7 mV Y f! G] WX Y f\ Y] h ZØf I b hY f b Y\ a Y b i b Y f` À gg`] WX

 $8 \ Yf' \ J \ Jg \ Loh \ Af' \ X \ Yf'? \ \emptyset \ bgh` \ JW \ Yb' \ bh Y`` \ J \ Loh \ Tf? \ d' < Ubg! \ 7 \ f]gh \ JUb' \ 6 ccgž \ X \ Yf' \ gc \ bgh` X \ Yf'? \ Mb \ h' \ b[']b' \ 8 \ J[']hU` \ Jg] \ Yfi \ b[']g \ Yfi \ b[']g \ Yfi \ b[']g \ Yfh \ b' \ Yf \ J \ CfUi \ gg \ hni \ b['Yb \ Z'i \ a \ X] \ Y' \ X \ J[']hU` Y \ Gci \ J \ Yf \ bh \ hh \ K' \ Y \ h' \ H' \ Th' \ Jh \ Th' \ Jh' \ Jh'$

Dfc Z" '8 f" '= YbY '6 YfhgWX Y_ ž'X]Y 'U 'g'A]h[`]YX 'XYf
9I dYfhYb_ca a]gg]cb:: cfgWXi b['i bX '=bcj Uh]cb'Ui WX 'X]Y
6i bXYgfY[]Yfi b[']b': fU[Yb'XYf'HYWXb]_! 'i bX'8][]hU 'gci j YfAb]hAh
VYfAhz'g]Y\h'7 mVYfg]WXYf\Y]h'U 'g'nYbhfU'Yg'9 'Ya Ybh'X][]hU'Yf
Gci j YfAb]hAh'' 'G]Y'[UV 'XYb'HY] 'bY\a Yfb'XYg
7 mVYfG]WXYf\Y]hg: cfi a g'9]bV `]W_Y']b']\fY': cfgWXi b[gUfVY]h'i bX
Y]bYb'5i gV `]W_z'k]Y'k]f'i bgYfY'X][]hU'Y'Gci j YfAb]hAh'a ØggYb'XYi hgWXY'i bX
Yi fcdA]gWXY'I bhYfbY\a Yb': Yfh][i b[g! i bX
9bhk]W_`i b[g_ca dYhYbnYb'Ui Z' i bX'Ui gVUi Yb''; `Y]WXnY]h]['[]`h
Ygž'X][]hU'Y'?ca dYhYbnYb'Ui WX']a 'I a [Ub['a]h'7 mVYfg]WXYf\Y]h
i bX'8 UhYbz']b'XYf'U_UXYa]gWXYb'5i g!'i bX'K Y]hYfV]'Xi b['gck]Y

]b'XYf'K Y]hYfV]'Xi b['ni 'ghÀf_Yb" '6]'Xi b['i bX'_cbh]bi]Yf']WXYg A cb]hcf]b['gc``hYb'X]Y': cfhgWXf]hhY']b'X]YgYb'6YfY]WXYb j YfZc`[Yb ž'gU[h'DfcZ''8f"

BYVYb'8]g_i gg]cbgfi bXYb'i bX'J cfhfà[Yb'ni a 'H\Ya U'8][]hU'Y
Gci j Yfàb]hàh'[UV'Yg'Ui W\'_cb_fYhY'5b'Y]hi b[Yb'i bX'K cf_g\cdg
ZØf'X]Y'DfUl]g. '\DfUl]g. '\DfUl Yf'HcV]Ug'A Ø``Yf'VY]gd]Y`gk Y]gY
nY][hY']b'gY]bYa 'K cf_g\cd'Yl_`i g]j ž'k]Y'I bhYfbY\a Yb'X]Y
7\Ucgd\UgY'X]fY_h'bUW\'Y]bYa '7mVYf'gci j Yfàb'a Y]ghYfb'_ÒbbYb
5hhUW_Y"

$JYf^Y]\ib[XYg^G]WXYfY]\hgdfY]gYg^&$&&$

a FU\a Yb XYg'j]YfhYb 7 mVYf'GYW f]hm: cfi a g'j Yf']Y\Yb XYf

♣bYba]b]ghYf'i bX XYf'K]fhgW\UZhga]b]ghYf'XYb DfY]g'8 f" B]Wc'Y

< cZZa Y]ghYf!? fUi h'Ui W\X]Y'G]W\Yf\Y]hgdfY]g'6UXYb!

K ØfhhYa VYf["'6YgcbXYfg'VYY]bXfi W_YbX']gh'X]Y'; YgW\]W\hY'XYg

X]Yg'À\f][Yb'; Yk]bbYfgž'XYf'D]`n'; a V< // '7c"?; 'Ui g'CghZ]`XYfb"

&\$%- kifXY'XUg'l bhYfbY\a Yb'gY`VghCdZYf'Y]bYg'gW\k YfYb

7 mVYfUb[f]ZZgž'XYf'8 UhYb'Ui Z'GYfj Yfb'i bX'7ca di hYfb'k Y`hk Y]h
j YfgW\`ØggY`hYži a '@ÒgY[Y`X'j ca 'l bhYfbY\a Yb'ni 'YfdfYggYb"

5 'g'FYU_h]cb'XUfUi Z'ghUfhYhY'D]`n'Y]bY'[Yn]Y`hY

GYbg]V]`]g]Yfi b[g_Ua dU[bY'bUW\]bbYb'i bX'Ui »Yb"'8 Ua]h'k]fX

XYf'; fi bXghY]b'ZØf'Y]bY'k]f_gUa Y'i bX'YfZc`[fY]W\Y

G]W\Yf\Y]hg_i `hif']a 'I bhYfbY\a Yb'[Y`Y[hž'X]Y'g]W\'VYgcbXYfg

Xi fW\XX]Y'C ZZYb\Y]h'Ui gnY]W\bYhž'a]h'XYf'XUg'l bhYfbY\a Yb'bUW\
]bbYb'i bX'Ui »Yb'a]h'XYf'DfcV'Ya Uh]_'i a [Y[Ub[Yb']gh"

H\Ya U'\DZcfa Uh]cbgg]W\Yf\Y]h"N]Y``XYf`? Ua dU[bY'k UfYgžXi fW\Y]bYb'j cf[YhÀi gW\hYb'< UW_YfUb[f]ZZ'Ui Z'XYb'?cbnYfbž'XYf`g]W\\
\[\OVYf`]bg[YgUa h'gYW\g'A cbUhY'\OVYf'j YfgW\]YXYbY'D\UgYb'a]h\\ Yk Y]`g'i bhYfgW\]YX`]W\Yb'GW\k Yfdi b_hYb'YfghfYW_hYž'Ui Z\\
\[7m\YfUb[f]ZZY'Ui Za Yf_gUa 'ni 'a UW\Yb"'9]b'k Y]hYfYf'nk Y]hYf'DfY]g\[]b['Ub'X]Y'VY]XYb'I bhYfbY\a Yb'GJ; 'G\OX'Ui g'Ghi hh[Ufh'k]Y'ni a\\ 6Y]gd]Y``ga UfhG97'Ui g'K YfbUi ž'X]Y'[Ya Y]bgUa 'a]h'GJ; '7cbgi `h\\ Ui g': fUb_Zi fh'Ua 'A U]b'XYb'GJ; '7m\Yf'DUWh'Z\Of'X]Y'HfUbgdcfh!\ i bX'\@c[]gh]_VfUbW\Y']bg'\@YVYb'[Yfi ZYb'\UVYb"'8 Ua]h'gcf[Yb'g]Y\\ Z\Of'Y]b'\O\YfYg'A U\rangle 'Ub'7m\Yfg]W\Yf\Y]h']b'XYf'\@c[]gh]_!'i bX\\ HfUbgdcfh\VfUbW\Y''

8Yf'DfY]g'gc``'I bhYfbY\a Yb'ZØf'; YZU\fYbgYbg]V]`]g]YfYb

A]h'XYa 'G]WXYf\Y]hgdfY]g'6UXYb!K ØfhhYa VYf['k ØfX][Yb'k]f VYgcbXYfY'DfcY_hYžX]Y'Ui Z'j cfV]`X`]WXY'K Y]gY'X]Y 6Yhf]YVgg]WXYf\Y]h'i bX']bgVYgcbXYfY'XYb'?bck!\ck!GWXi hn'ni a N]Y``\UVYb'''K]f'[fUhi `]YfYb'U``Yb'; Yk]bbYfb'[Ubn'\Yfn`]WX ž gU[hY'8][]hU`]g]Yfi b[ga]b]ghYf'H\ca Ug'GhfcV`"

K]fhgWVUZhga]b]ghYf]bB]WcY'< cZZaY]ghYf!?fUihigU[hY.': Øfi bgYfY`l bhYfbY\a Yb`]gh`Y]b`Ui g[YdfÀ[hYg $G[WXYfY]hgVYk i gghgY]b^k [WXh][Yf^XYbb^Yz^i a ^XYb$ k]fhgW\UZh`]W\Yb`9fZc`[ii bgYfYg`@UbXYg`ni 'Yf\U`hYb'i bX Ui gni VUi Yb"@Y]XYf]ghX]Y~6YXfc\ib[~jcb~8UhYb~ibX~?bck!\ck ni Y]bYa ghÀbX][Yb 6Y[Y]hYf]b VYhf]YV]WXYb 5VÀi ZYb[YkcfXYb"'8Ug'gdØfYb'k]f'XYfnY]h'VYgcbXYfg'jcf'XYa < |bhYf| fi bX XYg ?? f|Y [Yg]b XYf I _fU|bY i bX Y]bYf | cb 9 | dYfhYb VYZØfW\hYhYb`NibU\aYjcb`7mVYfUb[f]ZZYb`Uig`Figg`UbX" HfchnXYa k]fX:XUg:H\Ya U:]a a Yf:bcW\:cZh:i bhYfgW\Ahnh":N]Y::XYg G[WXYfY]hgdfY[gYg]ghYgžIbhYfbYAaYbUIZX]YgY; YZUXfYbUi Za Yf_gUa 'ni 'a UW\Yb'i bX'XUg'\Dcj Uh\cbgdchYbn\U`'\]b'X\]YgYa 6YfY]WX ni ZÒfXYfb" \(\frac{1}{2} \) \(\frac{1} \) \(\frac{1} \) \(\frac{1}{2} \) \(\frac{1}{2} \ jcfV]`X`]WXYb`DfcY_hYb`ibX`XUb_Y`XYa `GYW`f]hm': cfia `a]h`U`` qY]bYb'Yb[U[]YfhYb'A]h[`]YXYfb"'G]Y'`Y]ghYb'Y]bYb'k YqYbh`]W\Yb $6Y \| hfU[ini f GYbg]V] \|g|Yfib[iZØf X]YgYg'k | W\ h][Y H\ Ya U ž gc X]Y$ A |b |ghY f|b k Y |hY f"

8 Yf'DfY]g'k]fX'VY_Ubbh'[Y[YVYb'i bX'j Yf`]Y\Yb'j cb' G]WX Yf\Y]hgZcfi a '6UXYb!K ØfhhYa VYf["

8 Ugʻ7 mV yfG]W Yf\Y]hg: cfi a `\Uhʻg]W `]b`XYb``YhnhYbʻj]Yfʻyl\fYb`ni Y]bYa :: cfa UhʻYbhk]W_Y`hžʻXUgʻUi gʻXYa '6YfY]W '7 mV YfʻGYW f]hm b]W hʻa Y\fʻk Y[ni XYb_Ybʻ]gh''A Y\fʻU`gʻ) \$\$ 'HY]`bY\a Yfʻ_cbbhYb]b`X]YgYa 'yl\fʻYfgha Uʻgʻ]b`\mVf]XYfʻ: cfa 'gck c\``dYfgÒb`]W ']a Ghi hh[UfhYfʻ< Ui gʻXYfʻK]fhgW UZhʻU`gʻUi W 'cb`]bYʻhY]`bY\a Yb'' : fU[Ybʻ]a '7\Uhʻk i fXYbʻj ca 'A cXYfUhcfʻX]fY_hʻUi ZʻX]Yʻ6Ø\bY ØVYfhfU[Ybʻi bXʻX]YʻHY]`bY\a Yfʻ\UhhYbʻX]YʻA Ò[`]WX_Y]hžʻg]W cb`]bY'ni j YfbYhnYbʻi bXʻUi gni hUi gWXYb''`DUfhbYfʻXYf JYfUbghU`hi b['XYgʻA]b]ghYf]i a gʻXYgʻ\bYfbžʻZØfʻ8][]hU`]g]Yfi b[i bXʻ?ca a i bYbʻk UfYbʻXUgʻA]b]ghYf]i a 'ZØfʻYfbA\fi b[žʻ@AbX`]W YbʻFUi a 'i bX JYfVfUi W YfgW i hnʻgck]YʻX]YʻXfY]`VUXYb!k ØfhYa VYf[]gWXYb G]W Yf\Y]hgVY\ÒfXYbž'X]Yʻ7 mVYfʻ@UbXYgg]W Yf\Y]hgUa hžʻXUg @UbXYg_fa]bU`Ua hʻi bX`XUgʻ@UbXYgUa h'ZØfʻJYfZUgqi b[ggW i hn''

A]b]ghYf]i a 'XYg'=bbYfbž'ZØf'8][]hU`]g]Yfi b['i bX'?ca a i bYb.'A YX]Uh\Y_'ni a 'j]YfhYb'7mVYfGYW'f]hm cfi a

=bgd]f]Yfh'j cb'@UbXYgfY[]Yfi b['6K

8 YhU]`q

6 Ygi W Yb G]Y i bg Ui Z b!U["XY