

I G!5i » Yba]b]ghYf'Fi V]c']b': fUb_fY]WX. ; YgdfÀWXY'ØVYf': f]YXYb']b'XYf'I _fU]bY°

I G!5i » Yba]b]ghYf'Fi V]c'X]g_i h]Yfh']b': fUb_fY]W\'@Ògi b[Yb $Z\emptyset$ f'XYb'I _fU]bY!?cbZ]_hž'k À\fYbX'8b]dfc'N]Y`'Y]bYg fi gg]gW\Yb'5b[f]ZZg'k]fX"



8 b]dfcžil_fU]bY:!5a '%+"'5df]``&\$&) 'ZUbXYb']b':fUb_fY]W\
VYXYi hYbXY'8]d`ca Uh]Y[YgdfÀW\Y'ghUhhž'VY]'XYbYb'l G!
5i »Yba]b]ghYf'A UfWc'Fi V]c'i bX'GcbXYf[YgUbXhYf'GhYj Y'K]hh_cZZ
ØVYf'a Ò[`]W\Y'@Ògi b[Yb'ZØf'XYb'fi gg]gW\Yb'5b[f]ZZg_f]Y['[Y[Yb
X]Y'l_fU]bY'X]g_i h]YfhYb"'8]YgY'FY]gY'k i fXY'j ca 'l G!
5i »Yba]b]ghYf]i a 'cZZ]n]Y``'VYghÀh][h'i bX'Zc`[h'Y]bYa'j cf\Yf][Yb
HfYZZYb'K]hh_cZZg'a]h'XYa'fi gg]gW\Yb'DfÀg]XYbhYb'K `UX]a]f
Di h]b"'K À\fYbX'K]hh_cZZ'a]h'XYa'ZfUbnÒg]gW\Yb'GhUUhgW\YZ
9a a Ubi Y`'A UWfcb'gdfUW\Z'hfUZ'Fi V]c'gY]bYb'?c``Y[Yb'\YUb!BcY`
6Uffch"

8 Ug' < Ui dhn]Y`X]YgYf'; YgdfÀW\Y']gh'Ygž'Y]bY'6YYbX][i b['XYg 6`i hYgj Yf[]Y»Ybg']a 'fi gg]gW\!i _fU]b]gW\Yb'?f]Y['ni 'YffY]W\Yb" #bhYfYggUbhYfk Y]gY'hfYZZYb']b'DUf]g'i bhYfgW\]YX`]W\Y
X]d`ca Uh]gW\Y'5bg\hnY'Ui ZY]bUbXYf''K \hat{\text{A}}fYbX'Hfi a d'i bX
K]hh_cZZ'Y]b'gW\bY``Yg'9bXY'XYg'?f]Y[Yg'gck]Y'Y]bY
K]YXYfUbb\hat{\text{A}}Yfi b['nk]gW\Yb'XYb'I G5'i bX'Fi gg`UbX'UbghfYVYb\text{\text{Z}}
j YfZc`[Yb': fUb_fY]W\text{\text{Z}}; fc \rightarrow Vf]hUbb]Yb'i bX'UbXYfY'Yi fcd\hat{\text{A}}gW\Y
@\hat{\text{A}}bXYf'Y]bY'GhfUhY[]Y\text{\text{Z}}X]Y'a]`]h\hat{\text{A}}f]gW\Y'I bhYfgh\text{\text{M}hii b['Z\text{\text{M}}f'X]Y}
I_fU]bY'i a ZUggh\text{\text{Z}}i a 'X]YgY'j cf'JYf\UbX`i b[Yb'ni 'gh\hat{\text{A}}_Yb''
Ni XYa 'n]Y\Yb'Yi fcd\hat{\text{A}}gW\Y'GhUUhYb'a \text{\text{O}}[`]W\Yfk Y]gY'Y]bY
5i gV]`Xi b[g!'i bX'5i gf\text{\text{M}}ghi b[ga]gg]cb'Z\text{\text{M}}f'X]Y'i _fU]b]gW\Y'5fa YY
]b'6YhfUW\h''

8]Y FYU_h]cbYb 'Ui Z'XYb '?f]Y[

A cXYfbY a]`]hÀf]gWXY '9bhk]W_`i b[Yb 'nY][Ybž'XUgg'A cg_Ui 'XYb 9]bgUhn'Yi fcdÀ]gWXYf'Hfi ddYb ']b 'XYf'I _fU]bY'j Y\Ya Ybh'UV`Y\bh'' 9i fcdÀ]gWXY '@ÀbXYf'\]b[Y[Yb 'k UfhYb 'Ui Z'Y]bY '5Vg]WXYfi b[Xi fWX 'X]Y'I G5ž'i a ']\fYb '?i fg'Zcfhni gYhnYb'''8]YgY'[Ycdc`]h]gWXYb GdUbbi b[Yb 'k YfXYb 'Xi fWX 'Y]bYb 'U_hi Y``Yb '8fc\bYbUb[f]ZZ'Ui Z X]Y'gØXi _fU]b]gWXY'GhUXh'8b]dfc'k Y]hYf'j YfghÀf_h'''6Y]'X]YgYa 5b[f]ZZ'k i fXYb'Y]b'A ÀXWXYb'i bX'Y]bY'À`hYfY': fUi '[YhÒhYhž'ni XYa [UV'Yg'a]bXYghYbg'&, 'JYf'YhnhYž'XUfi bhYf'j]Yf'?]bXYf'''8b]dfc'[]`h U`g'NYbhfi a 'XYf'i _fU]b]gWXYb'FØghi b[g]bXi ghf]Y''

8]Y'i_fU]b]gWXY'@ Zhk UZZY'\Uh'ni XYa 'fi gg]gWXY'?Ua dZXfc\bYb ØVYf'?fmk m^F]\'i bX'7\Uf_]k '`c_U`]g]Yfhž'k cVY]'9I d`cg]cbYb'Ui WX Ui g'Gi a m'[Ya Y`XYh'k i fXYb"'DfÀg]XYbh'K c`cXma mf'GY`Ybg_m^VYf]WXhYhž'XUgg'X]Y'I_fU]bY'a]hh`Yfk Y]`Y'a Y\f'U`g'(\$'DfcnYbh]\fYf'K UZZYb'gY`Vgh'dfcXi n]Yfh"8]Y'i _fU]b]gWXY JYfhY]X][i b[g]bXi ghf]Y'i a ZUggh'a Y\f'U`g'hUi gYbX'K UZZYbhmdYb i bX'VYgWXÀZh][h'fi bX'' \$\$"\$\$\$ A YbgWXYb"'Hfchn'X]YgYf : cfhgWXf]hhY'V`Y]Vh'X]Y'I _fU]bY'k Y]hYf\]b'ghUf_'j cb FØghi b[g`]YZYfi b[Yb'Ui g'XYa '5i g`UbX'UV\Àb[][ž']bgVYgcbXYfY ZØf'DUbnYf'i bX': `i [UVk Y\f"

; `cVU`Y'5i gk]f_i b[Yb XYg'?f]Y[Yg

8 Y f'? f]Y['\Uh'b]W\h'bi f'`c_U`Yž'gcbXYfb'Ui W\ 'a Ugg]j Y'[`cVU`Y 5i qk]f_i b[Yb"'8 Y f'? cbZ`]_h'hfÀ[h'ni f'Dc`Uf]q]Yfi b['XYq

]bhYfbUh]cbU`Yb`GmghYa g`VY]`i bX`\Uh`g]W\`]b`XYb``YhnhYb` \pm U\fYb ni bY\a YbX`]bhYfbUh]cbU`]g]Yfh"`@Ui h`XYf`Gh]Zhi b[`K]ggYbgW\UZh i bX`Dc`]h]_`]gh`XYf`K YghYb`h]YZ`]b`XYb`?cbZ]_h`]bj c`j]Yfhž`k Ug`g]W\]b`a]`]hÀf]gW\Yfž'dc`]h]gW\Yf`i bX`k]fhgW\UZh`]W\Yf`I bhYfghØhni b[$Z\emptyset$ f`X]Y`I _fU]bY`nY][h"` \pm a '; Y[YbgUhn`XUni `\Uh`g]W\`i a `Fi gg`UbX Y]bY`I bhYfghØhnYf[fi ddY`[YV]`XYhž`X]Y`K UZZYb`Ui g`XYa ` \pm Ub`i bX BcfX_cfYU`VYn]Y\h"`K À\fYbX`bcfX_cfYUb]gW\Y`Gc`XUhYb`X]fY_h`]b X]Y`? Ua dZ\UbX`i b[Yb`Y]b[fY]ZYbž`\Y`ZYb`7\]bU`i bX`UbXYfY GhUUhYb`Fi gg`UbX`XUVY]ž`k Ygh`]W\Y`GUb_h]cbYb`ni`i a [Y\Yb"

8]Y a]`]hÀf]gWXY?ccdYfUh]cb a]h'BcfX_cfYU'ghÀf_h'b]W h'bi f'XUg FY[]a Y'j cb?]a '\&b[!i b\zero gcbXYfb'\Uh'Ui WX'bY[Uh]j Y 5i gk]f_i b[Yb'Ui Z'X]Y'GhUV]`]hÀh']b'XYf'FY[]cb"'HY\YfUb'i bX D'Òb['Ub['_ObbhYb'ni XYa ''Y]WXhYf'Ni [Ub['ni 'fi gg]gWXYf Bi _`YUfk UZZYbhYWXbc`c[]Y'Yf\U`hYb"'8Yf'?f]Y['\Uh'YVYbZU``g 5i gk]f_i b[Yb'Ui Z'X]Y'k Y`hk Y]hY'9fbÀ\fi b[gg]WXYf\Y]h'i bX'X]Y]bhYfbUh]cbU`Yb'9bYf[]Ya Àf_hYz'k Ug'Xi fWX'XYb'9]bVfi WX'XYf K]fhgWXUZhgVYn]Y\i b[Yb'nk]gWXYb'Fi gg`UbX'i bX'XYa 'K YghYb ni gÀhn`]WX'j YfghÀf_h'k i fXY"'Fi gg`UbX'j Yfgi WXhz']bhYfbUh]cbU`Y Ghfi _hi fYb'Ui gni VUi Ybz']b'XYbYb'XYf'K YghYb'b]WXh'j YfhfYhYb']gh'' \&]gy]hi h]cbYbz'X]Y'Ui Z'XYf'BUWX_f]Y[gcfXbi b['VUg]YfYb''

Ni gUa a YbZUggYbX``Àggh`g]W\`gU[Ybž`XUgg`X]Y`dc`]h]gW\Y
@UbXgW\UZh`]b`9i fcdU`i bX`XYf`K Y`h`g]W\`Xi fW\`XYb`?cbZ]_h`]b`XYf
I _fU]bY`k Y]hYf\]b`XfUa Uh]gW\`j YfÀbXYfhž`k À\fYbX`X]Y`; YgdfÀW\Y
]b`DUf]g`Y]bYb`k Y]hYfYb`GW\f]hh`]b`XYb`6Ya Ø\i b[Yb`i a `: f]YXYb
XUfghY``Yb"

8 Y hU]`g	
J c f ZU``	8fc[Yb_f]a]bU`]hÀhž'HYffcf]gaig
Cfh	8b]dfcži _fU]bY
J Y f`Y hn hY	&,
EiY``Yb	k k k "fYa gnY]hi b["XY
	k k k "gk d!VYf`]b"cf[

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