

8]Y'9]bZØ\fib['jcb'GhUV`YWc]b'k]fX'XYb 9fZc`['XYf'?fmdhc]bXighf]Y'a Uf_]YfYb

K Ugʻ]ghʻXUgʻ6YghYžʻk UgʻXUgʻ?fmdhck À\fi b[g!²_cgmghYa
hi bʻ_ÒbbhYžʻi aʻgY]bYbʻ[`cVUʻYbʻ9fZc`[ˈg]W\Yfni ghY``Yb3
GhY][YfbʻG]YʻX]Yʻ8ca]bUbnʻj cbʻGhUVʻYWc]bg"'¾XYfžʻXYf
UbXYfYfʻAY]bi b[ʻ]ghžʻ_Ubbʻa]hʻ9a]bʻ; ØbʻG]fYfžʻ79Cʻj cb
5j Uʻ@UVgžʻXYaʻI bhYfbY\aYbʻ\]bhYfʻXYaʻYfZc`[fY]W\Yg
@Uk]bYbdfchc_c``žʻXYfʻ6i g]bYggʻ\g]XYfʻYf_`ÀfhYžʻXUggʻ]bʻXYf
K Y`hʻXYfʻXYnYbhfU`]g]YfhYbʻK À\fi b[YbʻGhUV]`]hÀhʻ\YffgW\Yb
a i ggžʻi aʻZØfʻX]YʻVfY]hYʻ²ZZYbh`]W_Y]hʻUhhfU_h]jʻni ʻgY]b''
GhUV`YWc]bgʻk YfXYbʻXUgʻbÀW\ghYʻ[fc»Yʻ8]b[ˈgY]b
]W\5dfcdcgʻ[Y[YbØVYfʻ6i g]bYggʻ\g]XYfʻj Yfg]W\YfhYʻ9a]b
; ØbʻG]fYfžʻXUggʻXYf`k U\fYʻ9fZc`[ʻj cbʻ?fmdhck À\fi b[YbʻUʻg
gcn]U`YgʻD\Abca Ybʻ_ca a Ybʻk]fXžʻk YbbʻY]bʻUbʻ:]Uh
[YVi bXYbYfʻGhUV`YWc]bʻni fʻBf''%k]fX`Wc]bʻbUW\
/ Ua d∧Y``]d/

K Ugʻ]ghʻXUgʻ6YghYžʻk UgʻXUgʻ?fmdhck $\lambda fi b[g!^2 _cgmghYa ʻhi b _\dot{b}hYžʻi a ˈgY]bYbʻ[`cVU`Ybʻ9fZc`[ˈg]W\Yfni ghY``Yb3'GhY][Yfb'G]Y X]Yʻ8 ca]bUbnʻj cbʻGhUV`YWc]bg"$

XXYfž'XYf'UbXYfYf'A Y]bi b[']ghž'_Ubb'a]h'9a]b'; Øb'G]fYfž'79C
j cb'5j U'@UVgž'XYa 'I bhYfbY\a Yb'\]bhYf'XYa 'YfZc`[fY]WX Yg
@Uk]bYbdfchc_c``ž'XYf'6i g]bYgg' ₺g]XYf'Yf_`ÀfhYž'XUgg']b'XYf
K Y`h'XYf'XYnYbhfU`]g]YfhYb'K À\fi b[Yb'GhUV]`]hÀh'\YffgWXYb'a i ggž
i a 'ZØf'X]Y'VfY]hY'² ZZYbh`]WX_Y]h'UhhfU_h]j 'ni 'gY]b"

GhUV`YWc]bg'k YfXYb'XUg'bÀW\ghY'[fc»Y'8]b[gY]b

]WW 5dfcdcg [Y[YbØVYf'6ig]bYgg' \pm bg]XYf'j Yfg]WWYfhY'9a]b'; ØbG]fYfž'XUgg'XYf'k U\fY'9fZc`['jcb'?fmdhck À\fib[Yb'U`g'gcn]U`Yg

D\Abca Yb'_ca a Yb'k]fXž'k Ybb'Y]b'Ub':]Uh'[YVi bXYbYf GhUV`YWc]b'ni f'Bf"'%'k]fX'Wc]b'bUW\A Uf_h_Ud]hU`]g]Yfi b["

 $K \]f'g]bX'bcWX ``Ub[Y'b]WX h'ZYfh][\check{z}'V]g'X]Y'Bi a a Yf'Y]bg']gh'Wc]b']gh'Y]b'GhUV`YWc]b''8 Ug']gh'a Y]b'\delta X]_Uhcf'ZØf'YWX hYb'9fZc`["$

 $HYh \ Yf'fI \ G8 \ HE']gh'UV'gc Zcfh'XYf'k \]WXh][ghY'GhUV`YWc]b']b'XYf ?fmdhck Y`h''GY]bY'A \ Uf_h_Ud]hU`]g]Yfi b['VYhfA[h'fi bX'*-*$$ A]``]cbYb'I G!8c``Uf'i bX'VY`Y[h'XUa]h'D`Uhn') 'Ui Z'XYf'@]ghY'XYf k Yfhj c``ghYb'?fmdhck Å\fi b[Yb''$

) 'D`ÀhnY'k Y]hYf'i bhYb']b'XYf'@]ghY'g]bX'I G8'7c]bž'Y]bY'j cb'7]fWY i bX'7c]bVUgY'j Yfk U`hYhY'GhUV`YWc]b'a]h'Y]bYf A Uf_h_Ud]hU`]g]Yfi b['j cb'' &* \$\$'A]``]cbYb'I G!8c``Ufž'UVYf'a]h Y]bYf'ZfYi bX`]WXYfYb'6Yn]Y\i b['ni 'XYb'I G!FY[i `]Yfi b[gVY\ÒfXYb"

9a]b'; Øb'G]fYf'Yfk UfhYhž'XUgg'XYf'9]bgUhn'j cb'GhUV`YWc]bg]bgVYgcbXYfY'VY]'8Y:]!Bi hnYfb'ni bY\a Yb'k]fX"'8Yf'JcfhY]` X]YgYf'7c]bg'k ÀfY'[YbUi ž'XUgg'X]Y'6Ybi hnYf'XYb'K Yfhž'XYb'g]Y \UbXY`b'k ØfXYbž'_cbhfc``]YfYb'_ÒbbhYb"

8]Y'@Yi hY'k c``Yb'; Y`X'`Y]\Ybž'i bX'g]Y'k c``Ybž'XUgg'Yg'a Y\f GhUV`YWc]bg'[]Vhž'U`gc'Yfk UfhY']W\ž'XUgg'X]Y'6]bXi b[Yb'XYf'K Y`hž X]Y'?fY]gY'XYf'K Y`hž'k UW\gYb'' i bX'Yg'k]fX'k]f_`]W\'Ui ZfY[YbX gY]b"

8]Y \ Àgg`]W Y GY]hY

CVk c\``?fmdhck À\fi b[Yb'X]Y'\\XYY'j cb'7md\Yfdi b_g'k UfYbž'X]Y bUW\Y]bYa 'K Y['gi W\hYbž'XYa 'hfUX]h]cbY``Yb':]bUbngmghYa 'ni Ybh_ca a Ybž'bi hnhYb'GhUV`YWc]b!9a]hhYbhYb'U``Y'XYnYbhfU`Yb ?fmdhck À\fi b[Yb'i bX'bi hnhYb'g]Yž'i a 'Y]bY'6f@W_Y'ni a 'U`hYb :]bUbngmghYa 'ni 'VUi Yb"

=a '5``[Ya Y]bYb'k]fX'Y]bY':]Uh!GhUV`YWc]b'j c``ghÀbX]['Xi fWX 6Uf[Y`Xž'6Uf[Y`XÀei]j U`YbhY'cXYf'JYfa Ò[Ybgk YfhY'[YXYW_hž'X]Y [UfUbh]YfYbž'XUgg'YXYf'Hc_Yb'Y]bYf'VYgh]a a hYb':]Uh!; Y`XY]b\Y]h

Ybhgdf]W\h' 'ghY``Yb'G]Y'g]W\'Y]bYb'8c``Uf'Z\Øf'%'I G87!Hc_Yb'j cf\'z'\%' 9i fc'Z\Øf'\%'GhUg]g'cXYf'\%'; fUa a '; c`X'Z\Øf'\%'8][]I "

8]YgY'G]hi Uh]cb'VYXYi hYh'YXcW\žXUgg'GhUV`YWc]bg'hYbXYbn]Y``
j cb'Y]bYf'nYbhfU`]g]YfhYb'9]b\Y]h'UV\Àb[]['g]bX"'I G8H'k]fX
VY]gd]Y`gk Y]gY'j cb'HYh\Yf'\dag{b}Wt'I G87'j cb'7]fWYž'6I G8'j cb
6]bUbWt'i bX'85=j cb'Y]bYf'XYnYbhfU`]g]YfhYb'Ui hcbca Yb
Cf[Ub]gUh]cb'_cbhfc``]Yfh"

BYVYb'XYb'cVYb'[YbUbbhYb'd\]`cgcd\]gW\Yb'DfcV`Ya Yb']gh'X]Y
NYbhfU`]g]Yfi b['j cb'GhUV`YWc]bg'Y]bY'GW\k\AW\Yž'X]Y'Y]bY'
GhfYb[YfYg'FY[i`]Yfi b[ggmghYa''i bX'gc[Uf'ghUUh`]W\Y
?cbhfc``Y'''7]fWY'\Uh'VYfY]hg'Y]b[YZfcfYbY'I G87!Hc_Yb'i bX
; Y`XVÒfgYb'Ui Z'X]Y'gW\k\UfnY'@]ghY'[YgYhnhž'i a'XYa'; YgYhn'ni
YbhgdfYW\Ybž'a i gghY'HYh\Yf'gUZh][Y'GhfUZYb'nU\`Ybž'i bX'X]Y
5i Zg]W\hgVY\ÒfXYb'gi W\Yb'bUW\'A\Ò[`]W_Y]hYbž'XYb'9a]hhYbhYb
j cb'GhUV`YWc]bg'À\b`]W\Y'6Y\UbX`i b['k]Y'VY]'hfUX]h]cbY``Yb
6Ub_Yb"

. . 11

18 Y hU 1`c

6Ygi WXYb G]Y i bg Ui Z _fmdhc!bYk g"Uh