

GdJ[['6UmfYi h\'ghUfhYh'a]h BYi ni [Àb[Yb']b'X]Y'GU]gcb'&\$&)#&*°

8]Y'GdJ[['6UmfYi h\'ghUfhYh'Ua'%+"'\(\frac{1}{2}\)b]'&\\$\&\) 'a]h'HfU]b]b[i bX'BYi ni [\(\hat{A}b[\(Yb')]b'X]Y'JcfVYfY]hi b['Ui Z'X]Y FY[]cbU``][\(UgU]gcb'\&\\$\&\)#&*"



6UmfYi h\ ž'8Yi hgW\`UbX'!'5a '%+"'\dip b]'&\&\) 'k Uf'Yg'YbX`]W\
gck Y]h '8]Y'\%"'A UbbgW\UZh'XYf'GdJ [['6UmfYi h\ '\Uh'X]Y

JcfVYfY]hi b['Ui Z'X]Y'FY[]cbU``][UgU]gcb'&\&\) #&* 'Ui Z[Ybca a Yb"

I a '\%+.\\$\I\f'Z]Y'\XYf'GhUfhgW\i gg'Ui Z'XYa 'HfU]b]b[ghYffU]b'XYg

DcghlGJ '6UmfYi h\"'8]Y'5ha cgd\AfY'k Uf'Y]ba U`][ž'nU\`fY]W\Y': Ubg
i bX'Ni gW\Ui Yf'_Ua Ybži a 'X]Y'YfghYb'HfU]b]b[gY]b\Y]hYb'XYf

bYi Yb'GU]gcb'ni 'j YfZc`[Yb"

5i Z'XYa 'Dfc[fUa a 'ghUbXYb'b]W\h'bi f'X]Y'YfghYb', Vi b[Ybž gcbXYfb'Ui W\'X]Y'JcfghY``i b['bYi Yf'; Yg]W\hYf']a 'HYUa "
6YgcbXYfg'gdUbbYbX']gh'XYf'BYi ni [Ub['H\ca Ug'K]b_`VUi Yfž
XYf'j ca '8f]hh`][]ghYb'GdJ[['I bhYf\UW\]b['ni f'5`hghUXh'k YW\gY`h"
8Yf'&*!'À\f][Y'A]hhY`ghØfa Yfž'[YVØfh][Yf'CVYfVUmYfž'Vf]b[h'ØVYf

9]b bYi Yg HYUa 'a]h Zf]gW Ya K]bX

8]Y'bYi Y'A UbbgW\UZh'i a ZUggh'Ui » YfXYa 'k Y]hYfYb'BYi ni [Àb[Y k]Y'@]g'? 'Y]bž'H]bc'@YbbYfh\ž'6Yb':]gW\Yfž'@Ycb'6i W\Yfž'<Ybfm < OW_Yfž'XYf'U`g'Hcf\ØhYf'bYi 'XUVY]']ghž'A Ui f]WY'8Y\`Yfž 5`YI UbXYf'GY]XY``i bX'@ _Ug'E i]f]b"'HfU]bYf'@i _Ug'? `]b['i bX ; YgW\ÀZhgZØ\fYf]b'8f"'B]Wc'Y'?U`Ya VU'k UfYb'YVYbZU``g'j YfhfYhYb i bX'ZfYi Yb'g]W\'Ui Z'X]Y'_ca a YbXY'GU]gcb"

HcV]UgʻK YVYfžʻXYfʻVYfY]hgʻgY]hʻnY\bʻ\J\fYbʻU_h]jʻ]ghžʻk]fX`XUg HYUa 'YVYbZU``gʻi bhYfghØhnYb": ØfʻX]YʻHcf\ØhYfUi gV]`Xi b[ʻghY\h Hcfk UfhhfU]bYfʻ: UV]Ubʻ?c`VʻVYfY]hžʻi a 'XUgʻ⁄i b[YʻHcf\ØhYfhYUa Ui ZʻX]Yʻ<YfUi gZcfXYfi b[Ybʻj cfni VYfY]hYb"

9]b [i hYf GhUfh a]h \ c \ Yb N]Y `Yb

8 Yf B Yi ni [Ub ['K]b_`VUi Yf 'nY][h'g]W 'cdh]a]gh]gW 'i bX 'a ch]j]Yfh ZØf X]Y 'bYi Yb' < YfUi gZcfXYfi b[Yb']b'6UmfYi h\"'N]Y`]gh'Ygž'Zf]gW Y a di `gY']a '5b[f]ZZggd]Y``ni 'gYhnYbž'i a 'Y]bY'YfZc`[fY]W Y'GU]gcb]b'XYf FY[]cbU``][U'6UmYfb'ni 'gd]Y`Yb": Ubg'i bX'J YfUbhk cfh`]W Y \cZZYb'Ui Z'j]Y`Y'gdUbbYbXY'Gd]Y`Y'i bX'Y]b'ghUf_Yg'5VgW bY]XYb]b'XYf'@][U"

A]h'X]YgYf'j]Y`j YfgdfYW\YbXYb'5i g[Ub[g`U[Y']gh'X]Y'GdJ [[6UmfYi h\ 'VYghYbg' [YfØghYhži a ']b'X]Y'bYi Y'GU]gcb'ni 'ghUfhYb'i bX]\fYf'HfUX]h]cb'U`g'_cb_i ffYbnZÀ\][Yg'HYUa '[YfYW\h'ni 'k YfXYb" 9g'V`Y]Vh'UVni k UfhYbž'k Y`W\Y', VYffUgW\i b[Yb'X]Y'_ca a YbXYb A cbUhY'Vf]b[Yb'k YfXYb'i bX'k]Y'g]W\ 'XUg'HYUa 'i bhYf'XYf @Y]hi b['j cb'HfU]bYf'?`]b['Ybhk]W_Y`b'k]fX"

8 Y hU]`g	
Cfh	6UmfYih\ž'8YihgW\`UbX
EiY``Yb	• k k k "gdj [[!VUmfYi h\"XY

 $6\,Y\,gi\ WX\,Y\,b\,{}^*G]Y\,{}^*i\ b\,g\,{}^*Ui\ Z.\,{}^*b\,U[\ !\,V\,UmY\,fb\,"X\,Y$