

?i`h][Y'88F!FYghUi fUbhg']b'8fYgXYb. 9f]bbYfi b[Yb'i bX'bYi Y'HfYbXg°

9bhXYW_Yb'G]Y'8fYgXYbg'_i`]bUf]gW\Y'; YgW\]W\hY.'6Y`]YVhY FYghUi fUbhg'Ui g'88F!NY]hYbž']\fY'; YgW\]W\hYb'i bX'\Yi hY'''



9]bY'XYf'VY_UbbhYghYb'5XfYggYb']gh'XYf': fYggk ØfZY`'Ua Dcghd`Uhnž'Y\Ya U`g'XYf'<C!; UghghÀhhYb_ca d`Yl' 5a 'Nk]b[Yf" 9f'ÒZZbYhY'VYfY]hg'9bXY'XYf'*\$Yf!\\fY'gY]bY'DZcfhYb'i bX'Yfn]Y`hY gW\bY``'[fc\gy]@cV'kY[Yb'gY]bYf'UhhfU_h]jYb'DfY]gY"A]h'ØVYf %"(*) 'D`ÀhnYb'i bX'', \$'A]hUfVY]hYfb'k Uf'XUg'@c_U`'Y]b'VY`]YVhYf HfYZZdi b_hž'V]g'Yg'%- - &'Ui g'6Ui !'i bX'< m[]YbY[fØbXYb [YgWX `cggYb'i bX'&\$\$+'UV[Yf]ggYb'k i fXY"'< Yi hY']gh'Xcfh'XUg'G5D! ; YVÀi XY'ni 'Z]bXYb"

6Y`]YVhY'@c_U`]hÀhYb'XYf'88F

9]b'k Y]hYfYf?`Ugg]_Yf']gh'XUg'7UZÅ'DfU['Ua'5`ha Uf_h"8]YgYg
YfghY'gcn]U`]gh]gWXY'?cbnYfh'i bX'HUbnWUZÅ 'kifXY'Ua'&\$"
8YnYa VYf'%-) * 'YfÒZZbYh'i bX'k Uf'`Ub[Y'NY]h'Y]b'NYbhfi a 'XYg
_i `hi fY``Yb'@YVYbg']b'XYf'GhUXh"'Ni bÀWXgh'Y]bYf'A cXYbgWXUi
[Yk]Xa Yhz'j Yfk UbXY`hY'g]WX'XUg'7UZÅ'UV'%-), ']b'Y]b
J Uf]YhÅh\YUhYf'a]h'HUbnUVYbXYb'i bX'[Ughfcbca]gWXYa'5b[YVch"
9]b'Cfhz'Ub'XYa'?Øbgh`Yf'Ui g'VY]XYb'XYi hgWXYb'GhUUhYb
Ui ZhfUhYbz'ki fXY'Yg'ni 'Y]bYf'\Dgh]hi h]cbz'X]Y'V]g'ni f'GWX`]Y\right\b[Yb
i bX'GWX`]Y\right\b[Yb'k]fX'XUg'<Ui g'\Yi hY'U`g']hU`]Yb]gWXYg
FYghUi fUbh'5dcghc'i bX'Gd]Y`ch\Y_[Ybi hnh"'\BY!U\WXYa]\W\ca\\U\g'\Yg\Y]bXfi \W_gj c``ni gUa a Yb[YZUggh"

@YVYbga]hhY``Ui g`XYf`88F!NY]h`Z]bXYb`g]W\`Ui W\`]a `@]gYb\cZ`]b
@cgW\k]hnžY]bYa `XYf`k Yb][Yb`bcW\`cdYf]YfYbXYb`FYghUi fUbhg
Ui g`X]YgYf`ŸfU"`8]YgYf`U`g` 6U`_cb`8fYgXYbg `VY_UbbhY`Cfh
Ya dZ\hb[h`gY]h`%, -) '; \haghYž`i bX`Ui W\`bUW\`XYf`K YbXY`V`]YV`XUg
5a V]YbhY`k Y]hYgh[Y\YbX`Yf\U`hYb"`8]Y`U_hi Y``Yb`6YhfY]VYf\tilde{Z}
7 UfghYb`i bX`7 Ufc`]b`F\@\`Y!A UfhYb\tilde{Z}gYhnYb`a]h`hfUX]h]cbY``Yb
g\hamma\W\g]gW\Yb`; Yf]W\hYb`k\Y]hYf\]b`Ui Z`6Yk\h\f\hYg"; Ubn`]a `G]bbY
XYg`bcghU`[]gW\Yb`9fVYg`g]bX`Ui W\`X]Y`fi gh]_U`Yb`GdY]gYb`]a
FYghUi fUbh` D`Ubk]fhgW\UZh`Ub[Yg]YXY`ht\tilde{Z}XUg`gY]h`@VYf``\\$`\tilde{Y}b\Y\]'9]b\Y]a]gW\Yb`i bX`Hci f]ghYb`VY`]YVh`]gh`i bX`g]W\`Xi fW\
gY]bYb` CghU`[]Y !7\Ufa Y`Ui gnY]W\bYh"

HfUX]h]cbY``Yg`5a V]YbhY'i bX'_i `]bUf]gW\Y 9f`YVb]ggY

=a 'FYghUi fUbh' D`Ubk]fhgW\UZh ž'XUg'%--\$'ni f'NY]h'XYf

K]YXYfj YfY]b][i b['YfÒZZbYh'k i fXYž'_Ubb'a Ub'_`Ugg]gW.Y'88F!; Yf]W.hY'k]Y'Gc`'Ub_U'cXYf'F]bXYffci `UXYb'[Yb]Y» Yb"'8]Y
[Ya Øh`]W.Y'5ha cgd\AfY'a]h'<c`na ÒVY`b'i bX'fi gh]_U`Yf
8Y_cfUh]cb'n]Y\h'nU\`fY]W.Y'; AghY'Ub"'6YgcbXYfg
Ya dZY\`Ybgk Yfh']gh'XYf'V]Yf[UfhYbž'k c'a Ub'Ub'k Ufa Yb
Gca a YfUVYbXYb'a]h': fYi bXYb'i bX': Ua]`]Y'YbhgdUbbYb'_Ubb"
8]Y'GdY]gY_UfhY'V]YhYh'Ui W.'gU]gcbU`Y'; Yf]W.hY'i bX'fY[]cbU`Y
GdYn]U`]hAhYb'i bX'X]Y'Cb`]bY!FYgYfj]Yfi b['k]fX'Ya dZc\`Ybž

9]b']bhYfYggUbhYg'?Ud]hY`XYf'`c_U`Yb'; Ughfcbca]Y']gh'X]Y; YgWX]WXhY'XYg' 8fYW_gWXYf'@ÒZZY`g 'Ua 'GhfU» Vi f[Yf'D`Uhn" 9fÒZZbYh']a '\\f'%- *\%\text{x}'k Uf'Yf'XUg'a cXYfbghY'GWXbY``fYghUi fUbh XYf'GhUXh"'8cWX'Ui Z[fi bX'j cb'GUi VYf_Y]hgdfcV`Ya Yb'a i gghY'Yg gY]bYb'BUa Yb'ÀbXYfb"'BUWXXYa 'Yg'bUWX'XYf'K YbXY'Y]bY'K Y]`YU`g'JYfUbghU`hi b[gcfh'X]YbhY\text{x}'k i fXY'Yg'&\\$\&\UV[Yf]ggYb'i bX a UWXh'\Yi hY'D`Uhn'Z\Of'Y]b'K c\b!'i bX'; YgWX\AZhg\Ui g"

8 UgʻHi fa WUZÅʻ]a :: YfbgY\hi fa žʻXUgʻUʻgʻVY`]YVhYgʻ5 i gZi [gn]Y`
[]`hž'n]Y\hʻ'À\f`]WX fi bX`&\$\$"\$\$\$`6Ygi WXYfʻUbʻi bX`[]`hʻU`gʻXUg
hYi YfghY @c_U``XYfʻFY[]cb"'<]Yfʻ_ÒbbYb`X]Yʻ; ÀghYʻa]hʻ6`]W_ʻØVYf
X]YʻGhUXhʻ[Yb]Y» Ybž'k Ybb[`Y]WX YgʻgY]hʻ%- - %ʻbi fʻU`g
6Yhf]YVg[Y`ÀbXY`[Ybi hnh`k]fX"' +bhYfYgg]YfhY`XØfZYbʻg]WX
U``YfX]b[gʻUi Z'D`ÀbY'ni f`K]YXYfYfÒZZbi b[`V]gʻ&\$&+'ZfYi Yb"

± XYf fYhfcgdY_h]j Yb 6YhfUW\hi b['Ui Z'8 fYgXYbg'[Ughfcbca]gW\Y JYf[Ub[Yb\Y]h'k]fX'_`Ufž'XUgg'X]Y'9f]bbYfi b[Yb 'Ub 'X]Y'88F!? ØW\Y'i bX'XYfYb'@c_U`Y'Ui W\'\±\fnY\bhY'gdÀhYf'bcW\'`YVYbX][g]bX'i bX'XUg'_i `]bUf]gW\Y'; Yg]W\h'XYf'GhUXh'dfÀ[Yb"

8YhU]`g	
Cfh	8 fYgXYbž'8 Yi hgWX`UbX
Ei Y``Yb	• k k k "gUYWX g]gWXY"XY
	• XY!UWUXYa]WWca
	gc!`YVh!XfYgXYb"XY

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