

6`i h][Yf'5b[f]ZZ']b'? O`b!Nc``ghcW_. 'A Ubb gh]W\ h'Ui Z'XfY]''\ b[Y'A AbbYf'Y]b°

 \pm 0.7 O`b!Nc``ghcW_'gh]W\h'Y]b'l bVY_UbbhYf'XfY]''\h b[Y'A \AbbYf Ub"'Dc`]nY]'gi W\h'NYi [Yb'ni '`YVYbg[YZ\h']W\Ya '5b[f]ZZ'Ua ?U`g\W\Yi fYf'K Y]\Yf"



? U`gWX Yi fYf`K Y]\Yfž'? O`bž8 Yi hgWX `UbX'! = D'? O`b!Nc``ghcW_\Uh'g]WX `]b`XYf`BUWX h'ni `8]YbghU[ž'XYa `%" * b]`&\$&) ž'Y]b
YfgWX fYW_YbXYf`J cfZU```Ua `? U`gWX Yi fYf`K Y]\Yf`YfY][bYh"`9]b
i bVY_UbbhYf`A Ubb`[f]ZZ'XfY]`'\1 b[Y`A AbbYf`]a `5`hYf`j cb`%, ž'%i bX`&\$`*J\fYb`Ub`i bX`j Yf`YhnhY`g]Y`a]h`Y]bYa `gd]hnYb
; Y[YbghUbXž'a O[`]WXYfk Y]gY`Y]bYa `A YggYf"`6Y]`XYa `5b[f]ZZž`XYf
[Y[Yb'%.' \$`I\f`ghUhhZUbXž`nc[`g]WX`XYf`&\$!*À\f][Y`a Y\fYfY
Gh]WXj Yf`Yhni b[Yb`Ua `?cdZ'i bX`<U`g`ni `i bX`VYZ]bXYh`g]WX`]b
Y]bYa ``YVYbg[YZÀ\f`]WXYb`Ni ghUbX"`GY]bY`6Y[`Y]hYf`k i fXYb`]b
XYb`K UXYb`j Yf`Yhnhž'g]Y`g]bX`%, `i bX`%-`*J\fY`U`h"

K]Y'_ghU"XY'VYf]W\hYhz'k Uf'XYf'HÀhYf'Yhk U'%z, \$'A YhYf'[fc" bX hfi ['Y]bY'gW\k UfnYz'cZZYbY'Ghf]W_'UW_Y'a]h'?Udi nY'gck]Y'Y]bY

 $\label{eq:cgy-ibx-y-by-6-ui-wk-hugwk-y-ny-i} $$ Y^* = []b[\cgY'ibX'Y]bY'6Ui-wk-hugwk-y-ny-i[Yb'VYgwk-fY]VYbž XUgg'XYf'JYfXAWk-h][Y'jcf'XYa-'5b[f]ZZ'Ui-Z'Y]bYf'DUf_VUb_-'gU> ibX'X]Y'; fiddY'UbgdfUWkž'VYjcf'Yf'ibjYfa-]hhY'h'nigwk'i["8 UbUwk'Z\Qwk-hYhY'XYf'5b[fY]ZYfž'k-A\fYbX'X]Y'jYf'YhnhYb'A-AbbYf Ui-Z'Y]bYb'DUf_d`Uhn'fUbbhYb'ibX'<]`ZY'f]YZYb"$$

9fa]hh`i b[Yb'i bX'NYi [YbUi Zfi Z

8]Y 'Dc`]nY]'? O`b`\Uh'X]Y 'A cfX_ca a]gg]cb'Y]b[YgWXU`hYhži a 'XYb J cfZU``'Ui Zni _`ÀfYb"'8 Ugʻni ghÀbX][Y'HYUa 'V]hhYh'X]Y'6Yj O`_Yfi b[i a 'A]h\]`ZY"'UbmcbY'k\c'\Ugʻ]bZcfa Uh]cb'ni f'=XYbh]hÀh'XYgʻHÀhYfg cXYfʻni a 'HUh\Yf[Ub['k]fX'[YVYhYbžʻg]WX'i bhYf'XYf HY`YZcbbi a a Yf'\$&&%'&&-!\$'cXYf'dYf'9!A U]`'Ub dcghghY``Y"_cY`b4 dc`]nY]"bfk "XY'ni 'a Y`XYb"'hU[&("XY'\YVh\Yfj cfž'XUgg'X]Y'Dc`]nY]'U_hi Y``Yf'XYbb'Y'Ui Z'NYi [Yb\]bk Y]gY Ub[Yk]YgYb']ghž'i a 'XYb'a i ha U»`]WXYb'HÀhYf'ni ']XYbh]Z]n]YfYb"

?f]a]bU`ghUh]gh]_']b'?Ò`b

± XYb ``YhnhYb '*J\fYb `\Uh'X]Y 'Dc`]nY]'? Ò`b 'Y]bY 'ghY][YbXY '5bnU\` Ub '; Yk U`hXY`]_hYb 'j YfnY]W\bYhž'k Ug'X]Y 'G]W\Yf\Y]hg`U[Y ']b 'XYf GhUXh`VYhf]ZZh" '@Ui h`XYf 'dc`]nY]"bfk ']gh'X]Y 'ÒZZYbh`]W\Y 'G]W\Yf\Y]h Y]b 'k]W\h][Yg '5b`]Y[Yb"'8]Y '6Y\ÒfXY 'UfVY]hYh`]bhYbg]j 'XUfUbž'XUg G]W\Yf\Y]hgYa dZ]bXYb 'XYf'6Øf[Yf'ni 'Yf\Ò\Yb'i bX'XYfUfh][Yb J cfZÀ``Yb Ybh[Y[Ybni k]f_Yb"

8 Yf'J cfZU```Ua '?U`gW\Yi fYf'K Y]\Yf'k]fZh'YfbYi h'Y]b'@]W\h'Ui Z'X]Y U_hi Y``Yb'< YfUi gZcfXYfi b[Yb']b'XYf'?f]a]bU`]hÀhgVY_Àa dZi b[i bX'X]Y'Bchk YbX][_Y]h'ZØf'Y]bY'Yb[Y'Ni gUa a YbUfVY]h'nk]gW\Yb Dc`]nY]'i bX'6Yj Ò`_Yfi b["'K À\fYbX'X]Y'9fa]hhìi b[Yb'XYf A cfX_ca a]gg]cb'k Y]hYf`Ui ZYbž'V`Y]Vh'XYf'Ni ghUbX'XYg &\$!À\f][Yb'_f]h]gW\ž'k À\fYbX'gY]bY'6Y[`Y]hYf'Ui Z'XYa 'K Y['XYf 6YggYfi b['g]bX"

 $8]Y `6chgWX UZh`]gh`_`Uf. `#b`XYf`B UWX VUfgWX UZh`]gh`a Ub`ZØfY]bUbXYf XUž`i bX`^YXYf`<]bk Y]g`_Ubb`YbhgWXY]XYbX`gY]b"$

8 Y hU]`g	
Cfh	?U`gWXYi fYf`K Y]\Yfž`?Ò`bž`8Yi hgWX`UbX
EiY``Yb	• k k k "_ghU"XY
	• k k k "hU[&("X Y
	_cY`b"dc`]nY]"bfk

6Ygi WXYb'G]Y'i bg'Ui Z.'a Y]b!_cY`b"bYh