

7 Uf'h\]Yj Yg'WUi [\h']b'6Uj Uf]U.'h\Y'dc`]WY UfY'dfcj]X]b['jc`Uh]`Y'dYfdYhfUhcfg°

±b '6Uj Uf]U 'UbX '6Yf`]bž 'WUf 'VfYU_'!]bg 'UbX 'WX UgY 'k YfY fY WY bh`m 'fYdcfhY Xž 'k]h\ 'qYj YfU` 'UffYqhq 'UbX ']b 'i f]Yq"



BØfbVYf[ž8Yi hgWX`UbX`!`5`WUf`k Ugʻghc`Ybʻ]bʻ6Uj Uf]Uʻcb
K YXbYgXUmž'k \]WX``YX`hc`Ub`YI W]h]b[`WXUgY"'H\Y`dc`]WY
X]gWcj YfYX`h\Y`ghc`Yb`WUf`cb`h\Y`5+&`]b`GUI cbm`UbX`Ug_YX`h\Y
Xf]j Yf`hc`ghcd"'<ck Yj Yfž\\Y`fYUWhYX`k]h\`UhhYa dhg`hc`YgWUdY`UbX
]b´I fYX`hk c`dc`]WY`cZZ]WYfg"'H\Y`]bW]XYbh`cVWV ffYX`]b`Bi fYa VYf[ž
Zfca `k\YfY`h\Y`j Y\]WY`k Ugʻghc`Ybž'UbX`k UgʻZci bX`]b`7\Ya b]hn
]b`h\Y``UhY`UZhYfbccb"'

`K \Yb'h\Y'Xf]j Yfž'U'' -!mYUf!c`X'a Ub'k \c'Xfcj Y'h\Y'\][\k Umž\Y
cj Yfhcc_'gYj YfU`'j Y\]WYg'fUd]X`m'cb'h\Y'f][\h'g]XY'ghf]d"'5h'h\Y
F chh`i ZZ''i bWh]cbž'h\Y'WUf'Xfcj Y']bhc'U'[i UfXfU]`"'H\Y'Xf]j Yf'UbX
\]g'dUggYb[Yf'cZ'h\Y'gUa Y'U[Y']b]h]U``m'ZYX'cb'Zcchž'Vi h'Wci `X
ei]W_`m'VY'cVhU]bYX'Vm'h\Y'dc`]WW"'H\Y'dUggYb[Yf'fYg]ghYXž'k \]W

`YX`hc`Zi fh\Yf`]b^i f]Yg`hc`h\Y`Ya Yf[YbWm`gYfj]WYgž`k\YfYVm`U (%!mYUf!c`X`dc`]WY`cZZ]WYf`\UX`hc`VY`Vfci [\h`hc`U`W]b]W`H\Y`a Yb k YfY`hYa dcfUf]`m`UffYghYXž`Vi h`UfY`bck`Uh``Uf[Y`U[U]bž`k\]`Y h\Ym`UfY`VY]b[`XYhYfa]bYX`U[U]bgh`h\Ya`VYWUi gY`cZ`dUfh]W``Uf`m gYj YfY`WUf`h\YZh"`H\Y`fYgi`h]b[`hchU``XUa U[Y`Ua ci bhg`hc`Ufci bX &+ž\$\$\$`Yi fcgž`gi W\`Ug`<u>dbd"XY`fYdcfhq`</u>"

'WX UgY']b'6Yf`]b'

 $\begin{tabular}{ll} \begin{tabular}{ll} \be$

']bWfYUg]b['WUf'Wf]a Y ']b ; Yfa Ubm'

 $\label{thm:continuous} \begin{align*} $$ H\ YgY\]b\ WXYb\ hg\ UfY\ d\ Ufh\ c\ Z'\ U'\ hc\ hU'\ c\ Z'\ WUfg\ k\ YfY\ [ghc\ Yb\]b\ ;\ Yfa\ Ub\ m']b\ \&\$\&'\ \check{z}\ k\ \]WX\ fYdfYgYb\ hg\ Ub\]b\ WfY\ UgY\ c\ Z'\ -\ 'd\ Yf\ W'\ b\ h']b\ h\ Y\ 'd\ fYj\]c\ i\ g'\ mY\ Uf''\ 9gd\ YW]U\ 'm']b\ h\ Y\ 'Zc\ W'\ g'\ c\ Z'\ h\ Y'\ h\]Yj\ Yg\ h\ YfY\ 'UfY\]b\ WfY\ Ug]b\ [\ 'm\ j\ Y\]WYg\ Zf\ c\ a\ 'Zc\ fY]\ [\ b\ 'a\ Ub\ ZU\ Whi\ fYfg\ gi\ WX\ 'Ug\ H\ c\ mc\ hUz'\ <\ m'\ b\ XU]\ Ub\ X'?\]U''\ H\ Y'\ b\ i\ a\ VYf\ c\ Z'\ ghc\ Yb\ 'hfi\ W\ g'\ Ug\ U\ 'g\ c\ f]gYb\ XfUa\ Uh]WU\ 'mz'\ Ygd\ YW]U\ 'm'\ h\ fc\ [\ \ 'U'\ gYf]\ Yg\ c\ Z'\ h\ Y\ Zhg\ c\ Z'\ ga\ U\ 'Yf\ j\ Ub\ g''\ .$

'H\Y'dYfdYhfUhcf'[fcidg'UfY'cZhYb'kY```bYhkcf_YX'UbX'UfY
W\UfUWhYf]nYX'Vm'U'\]YfUfW\]WU``ghfiWhifY"'H\Ym'U`gc'igY'acXYfb
hYW\bc`c[]Yg'giW\'Ug'h\Y'aUb]di`Uh]cb'cZ'"?Ym`Ygg!; C"'gmghYagž

 $\label{thm:condition} $$k \setminus]WX^*]bWfYUgYg^*h \setminus Y^*XUb[Yf^*cZ^*h \setminus Y]f^*a Yh \setminus cXg^*'H \setminus Y^*dc^*]WY$$ Ui h \setminus cf]h]Yg^*Ya d \setminus Ug]nY^*h \setminus Y^*bYYX^*Zcf^*WcgY^*WccdYfUh]cb^*k]h \setminus ch \setminus Yf$$ Ui h \setminus cf]h]Yg^*UbX^*h \setminus Y^*Ui h ca ch]j Y^*]bXi ghfm^*hc^*Wci bhYfUWh^*h \setminus]g^*Zcfa cZ^*Wf]a Y^*'^*$

8 Y hU]`g	
JcfZU``	8]YVghU\`ž'?ÒfdYfjYf`Yhnib[
Cfh	BØfbVYf[ž8Yi hgWX`UbX
J Y f`Y hn hY	
: YghbU\a Yb	
GWX UXYb ']b '	&+\$\$\$
EiY``Yb	• k k k "dbd"XY
	• k k k "a cn"XY
	• k k k "V_U"XY

6Ygi WXYb G]Y i bg Ui Z b!U[bYh