## 7UfXcbU/ \$' - /g'5VgYbWY'Di hg'5h`Åh]Wc BUW]cbU'/ \$' - /g': ]bU`g'8fYUa ']b >YcdUfXm°

9Xk]b'7UfXcbU'ZUWYg'aigWY'ZUh][iY'U\YUX'cZ'5h`Åh]WcBUW]cbU'/\_\$'-/g'WfiW]U``aUhW\'U[U]bgh'\DXYdYbX]YbhYGUbhU':Y"'HYUa'W\U``Yb[Yg'XYYdYb"



A YXY``Ébž'7c`ca V]U'!'9Xk]b'7UfXcbUž'U'd]j chU``ZcfW'Zcf
5h`Åh]Wc'BUW]cbU`ž'\Ug'fYW\bh`m'gdUf\_YX'WcbW\fb'Ua cb['ZUbg'UbX
a UbU[Ya Ybh'U`]\_Y"'H\Y'hYUa 'ZUWYX'U'X]gUddc]bh]b['&!%'XYZYUh
U[U]bgh'GUbhU': Y']b'A YXY``Éb'Xi f]b['h\Y'gYa]Z]bU`'ei UXfUb[i `Ufgž
`YUj]b['h\Ya'k]h\'U'dfYWUf]ci g'hk c'dc]bhg']b'[fci d'6"'K]h\'h\Y]f
Zi hi fYg']b'h\Y'Z]bU`g'\Ub[]b['Vm'U'h\fYUXž'h\Y'i dWca]b['a UhW\
U[U]bgh'\DXYdYbX]YbhY'GUbhU': Y']g'bck 'U'a U\_Y!cf!VfYU\_
g]hi Uh]cb"'5'`cgg'Wci `X'\_bcW\_'5h`Ah]Wc'BUW]cbU``ci h'cZ'h\Y'Z]bU`g
WcbhYbh]cb'U`hc[Yh\Yf"'

 $8 Ygd hY U gc^{X}Wcbhf Vih cb^hc^h Y hY Ua z^{B}Wi X b [ U c U gwcfYX]$ 

 $\label{thm: continuous} $$ U[U]bgh'GUbhU': Y'UZhYf'a ]gg]b['U'df]cf'a UhW\'Xi Y'hc'd\mg]WU' ]ggi Ygž'7UfXcbU'k ]``'VY'a ]gg]b[']b'UWh]cb'Zcf'h\Y'Wfi W]U''[Ua YU\YUX'U[U]bgh'\D\XYdYbX]YbhY'GUbhU': Y'Xi Y'hc'a i gWY'ZUh][i Y']b\] \[ ]g'f][\h'`Y['''<]g'UVgYbWY']g'U'g][b]Z]WUbh'V`ck /'5h`Åh]Wc BUW]cbU' g'k ]b'fUhY'd'i a a Yhg'Zfca '* $\ i k ]h\'\]a 'hc'' gh'(\$\ k \Yb'\Y g'g]XY`]bYXž'UWWcfX]b['hc'\D\ZcVUY'' $\]$ 

## 5 7 \ U``Yb[]b[ FcUX Zcf 7 UfXcbU

5h" %mYUfg'c`Xž'9Xk]b'7UfXcbU g'dfcZYgg]cbU`'cifbYm\Ug'VYYbU'fc``YfWcUghYf'cZ'W\U``Yb[Yg'UbX'UWWcad`]g\aYbhg''<]g'ach\YfžDUi`U'6YXcmUž'fYW\bh`mg\UfYX'dc][bUbh']bg][\hg']bhc`\Yf'gcbg`]ach\Yf'zDUi`U'6YXcmUž'fYW\bh`mg\UfYX'dc][bUbh']bg][\hg']bhc`\Yf'gcbg`]ach\Yf'gcbg`]Y\'JUWX'YUf`mcbž'ibXYfgWcf]b['h\Y']adcfhUbW'cZ'ZUa]`mgiddcfh'Ug'h\Ym'bUj][UhYX'X]ZZ]W'`h'h]aYg''7UfXcbUg'idVf]b[]b[ZcfWXX'\]a'hc'g\ck'fYg]`]YbW'ž'cZhYb'UhhYbX]b['hfU]b]b['cb'ZcchUbX'gcaYh]aYg'k]h\cih'VfYU\_ZUgh''<]g'XYX]WUh]cb'\Ug'aUXY'\]aU'ghUbXcih'd`UmYf']b'jUf]cig'WiVg'h\fci[\cih'\]g'WUfYYfž]bWiX]b['\cih'\]g'WUfYYfž

## =b^i fm'K cYg'Zcf'5h`Åh]Wc'BUW]cbU`

H\Y`Wca dYh]h]j Y`bUhi fY`cZ`h\Y``YU[i Y`a YUbg`Yj Yfm'a UhW\
Wci bhgž`UbX`h\Y`dfYggi fY`]g`dU`dUV`Y`Zcf`Vch\`5h`Åh]Wc`BUW]cbU`
UbX`GUbhU`: Y"`H\Y`a YX]WU``fYdcfh`Zcf`GUbhU`: Y`ci h`]bYg`h\Y]f
]b'1 fYX`d`UmYfgž`]bX]WUh]b[`h\Uh`h\Ym`UfY`i b`]\_Y`m`hc`dUfh]W]dUhY`]b
h\Y`i dWca ]b[`a UhW\ž`a i W\``]\_Y`7UfXcbU"`<Ufc`X`GUbh]U[c
A cgei YfU`]g`gYh`hc`ghYd`i d`]b`d`UWY`cZ`NUdUhUž`k\]`Y`9a Ubi Y`
C`]j YfU`]g`hci hYX`Ug`U`gi Vgh]hi hY`Zcf`GWUfdYhUž`g\ck WUg]b[`h\Ycb[c]b[`UX'1 gha Ybhg`YUW\`hYUa 'a i gh'a U\_Y"

## @cc\_]b[ '5\YUX

7 UfXcbU g'XfYUa g'YI hYbX'VYmcbX'f gh'd`Um]b[/\Y'Ybj]g]cbg'U Zi hi fY'k \YfY'\Y'WUb'[]j Y'VUW\_'hc'h\Y'gdcfh'h\fci [\'X]fYWh]b['UbX bi fhi f]b['mci b['hU`Ybhg'Uh'ZcchVU``'gW\cc`g"'FYZYWh]b['cb'\]g 'ci fbYmž'\Y'\Ug'YI dfYggYX'[fUh]hi XY'hc'5h`Åh]Wc'BUW]cbU``Zcf'h\Y]f gi ddcfh'h\fci [\ci h'\]g'WUfYYf"'6U`UbW]b['Ua V]h]cb'k]h\'h\Y\][\g'UbX'`ck g'cZ'dfcZYgg]cbU``gdcfhg'WUb'VY'hci [\ž'Vi h 7 UfXcbU g'Wca a]ha Ybh'hc'h\Y'[Ua Y'UbX'\]g'ZUa]`m'fYa U]bg i bk Uj Yf]b["

 $H\Y`WcW_{}]g'h]W_{}]b[~Zcf'5h`Åh]Wc'BUW]cbU``Ug'h\Ym'[YUf'i~d'Zcf'h\Y]fbYI~h'a~UhW\"'Cb`m'h]a~Y'k~]```hY```]Z'h\Ym'WUb'fU``m'hc[Yh\Yf'hc~gYW'fY'U'j~]Whcfm'Ua~]Xgh'UXj~Yfg]hm'UbX'k~\Yh\Yf'7UfXcbU'k~]``cj~YfWca~Y'\]g']b^{f}f]Yg'hc'a~U_Y'U'g][b]Z]WUbh']a~dUWh'cbWY'a~cfY''$ 

 $: cf`Wcbh]bicig`idXUhYg`cb`9Xk]b`7UfXcbU`UbX`5h`Åh]Wc`BUW]cbU`žWXYW\_`cih`: cchmghUhg`Zcf`]b!XYdh\`ghUh]gh]Wg`UbX`d`UmYf`dfcZ]`Yg"$ 

8 Y hU]`g	
Cfh	A YXY``Ébž'7c`ca V]U
EiY``Yb	• k k k "]b Zc V UY "Wca
	<ul><li>k k k "bch]W]UgWUfUWc`"Wca</li></ul>
	• Zc c hmghUhg"c f[