

GWX k YfYf'I bZU```]b`7cVif[.A chcffUXZU\fYf'VY]'?c``]g]cb'j Yf`Yhnh°

5a '&, "\$*"&\$&) '_Ua 'Yg']b'7cVi f['ni 'Y]bYa 'gWk YfYb JYf_Y\fgi bZU``'nk]gWkYb'Y]bYa 'A chcffUX'i bX'Y]bYa 'D_k ž VY]'XYa 'Y]b': U\fYf'j Yf`Yhnh'k i fXY"



?fYi ni b['GWX ØhnYbghfU» Y#, cYh\ YghfU» Yž'-*()\$'7cVi f[ž 8 Yi hgWX `Ub X'! 5a 'GUa ghU[UVYb Xž'XYa '&, "'Þb]'&\$&) ž YfY][bYhY'g]WX'[Y[Yb'%, .' \$'I \f'Y]b'gWX k YfYf'I bZU``'Ub'XYf ?fYi ni b['GWX ØhnYbghfU» Y#, cYh\ YghfU» Y']b'7cVi f["'8 UVY]'_Ua 'Yg ni 'Y]bYa 'Ni gUa a Ybghc» 'nk]gWX Yb'Y]bYa 'A chcffUXZU\fYf'i bX Y]bYa 'D_k "'@Ui h'6Yf]WX hYb'XYf'B Yi Yb'DfYggY'7cVi f['k i fXY Y]bY'DYfgcb'j Yf`Yhnhž'i bX'X]Y'Dc`]nY]'bU\a 'j cf'Cfh'X]Y I bZU``Ui ZbU\a Y'j cf"'K Y]hYfY'8 YhU]`g'gc``Yb'gdÀhYf'VYfY]h[YghY``h k YfXYb"

±b 'Y]bYa 'Yhk Ug 'ZfØ\YfYb 'J cfZU``ž'XYf'g]WX 'Ua '8]YbghU['i a '%\$.%\$ I\f']a 'K]fhg[fi bX']b 'F]WXhi b['A UfgWXVYf['YfY][bYhYž'k i fXY'Y]b *)!'À\f][Yf'A chcffUXZU\fYf'VY]'Y]bYa 'Ni gUa a Ybghc» 'a]h'Y]bYa

9fa]hh`i b[Yb'i bX'l fgUWXYb

 $8]Y `7 cVi f[Yf'Dc`]nY] ` Uh'[Y[Yb'X]Y': U Yff]b `XYg'F YbUi `hg 9 fa]hh`i b[Yb'k Y[Yb'ZU Yf`Agg][Yf'? OfdYfj Yf`Yhni b['i bX JYf_Y Yfgj YfghO`» Yb Y]b[Y`Y]hYh'''Gc`WXY'I bZA``Y'j YfXYi h`]WXYbž'k]Y k]WXh]['J Yf_Y YfgYfn]Y \i b['i bX'G]WXYf Y]h'Ui Z'i bgYfYb `GhfU`» Yb g]bX'''GWX`]Y`»`]WX 'g]b_h'X]Y `NU\`'XYf'J Yf_Y Yfgi bZA``Y'b]WXh'j cb U``Y]bYž'k]Y `U_hi Y``Y'GhUh]gh]_Yb'ni a `I bZU``[YgWXY Yb'nY][Yb'' @Ui h'8 YghUh]g'X]YbYb'X]Y'[YgUa a Y`hYb'8 UhYb'XYf'; Yk]bbi b[i a ZUggYbXYfž'U_hi Y``Yf'<math>\#$ Zcfa Uh]cbYb'ni f J Yf_Y \fgg]WXYf Y]hg`U[Y'i bX'V]`XYb'X]Y'; fi bX`U[Y'ZØf'ghUUh`]WXY A U`» bU\a Yb']b'XYf'J Yf_Y \fgdc`]h]_''

 $\label{thm:continuous} J Y f_Y \ fg]WX Y f_Y \ h']h']gh'Y]b'nYbhfU`Yg'H_Ya Už'XUg'b]WX h'bi f'X]Y \\ G]WX Y f_Y \ h'XYf': U_fYf'VYhf]ZZhz'gcbXYfb'Ui WX'X]Y'j cb': i » [Åb[Yfb i bX'UbXYfYb'] Y f_Y_Y fghY]`bY\a Yfb''A U » bU\a Yb'ni f \\ J Y f V Y ggYfi b['XYf' +\dark Z f Ughfi _hi f'i bX'XYf'HYWX b]_'j cb': U_fnYi [Yb g]bX'i bYf`Agg`]WX''8]Y'Ni ghAbXY']a 'GhfU » Ybj Y f_Y_Y_f'_ObbYb'g]WX gWX bY``'AbXYfb'' XU_Yf']gh'Yg'V Y ggYfz'j cfg]WX h]['i bX'Ui Za Y f_gUa ni 'ZU_fYbz'i a 'gc'WXY'i b[`\Omegw_`]WXYb''J cfZA``Y'ni 'j Y fa Y]XYb''' \end{align*}$

±bg[YgUa hi]ghiX]YgYfiJcfZU```Y]bia U\bYbXYgi6Y]gd]Y``XUZØfžiXUgg YXYfiJYf_Y\fghY]`bY\a YfiJYfUbhk cfhi b[ihfÀ[h"; ihY JYf_Y\fgYfn]Y\i b[iibXiXUgi6Yki gghgY]biZØfiX]Yi; YZU\fYbi]a GhfU»YbjYf_Y\fig]bXiYbhgWXY]XYbXžiia iX]YiG]WXYf\Y]hiZØfiU``Yini [YkÀ\f`Y]ghYb"

8 Y hU]`g	
Cfh	?fYinib['GW\ØhnYbghfU»Y#,cYh\YghfU»Yž
	-*()\$'7cVif[ž'8YihgW\`UbX
EiY``Yb	• k k k "bd!WcVi f["XY
	k k k "bcfXVUmYfb"XY
	k k k "XYghUh]g"XY

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