GhUf'=bZ]Y`XYf'AUX]gcb'KU`_Yf'∞]bg : `cf]XU'; Uhcfg'GcZhVU``'HYUa'°

A UX]gcb'K U`_Yfž'&\$&&!&'; UhcfUXY'GcZhVU```D`UmYf'cZ'h\Y MYUfž'Wca a]hg'hc': `cf]XU'; Uhcfg'UZhYf'hfUbgZYff]b['Zfca A]ggcif]"



C`Uh\Yž? UbgUgžI G5 !! \delta 'U'g][b]Z]WUbh'hi fb'cZ'Yj Ybhgž'Zcfa Yf A]ggci f] 'WcfbYf']bZ]Y`XYf'A UX]gcb'K U`_Yf'\Ug'j YfVU``m'Wca a]hhYX hc'c]b'h\Y': `cf]XU'; Uhcfg 'gcZhVU``'hYUa "'H\Y'Ubbci bWYa Ybhž k\]W\'k Ug'a UXY'j]U'gcW]U`a YX]U'cb'H\i fgXUm'Yj Yb]b[ž'\Ug gh]ffYX'YI W]hYa Ybh'Ua cb['ZUbg'UbX'UbU`mghg'U`]_Y''K U`_Yfž'U ghUbXci h'Uh\`YhY'Zfca 'C`Uh\Yž'? UbgUgž'k Ug'fYWc[b]nYX'Ug'h\Y &\$&&!&' '?UbgUg'; UhcfUXY'GcZhVU``'D`UmYf'cZ'h\Y'MYUf'UbX']g k]XY`m'Ubh]W]dUhYX'hc'a U_Y'U'Wcbg]XYfUV`Y']a dUWh'cb'h\Y'; Uhcfg fcghYf"

8 i f]b['\Yf'h]a Y'k]h\'h\Y'A]ggci f]'H][Yfgž'K U`_Yf'k Ug'U'ZcfWY'hc VY'fYW_cbYX'k]h\"'G\Y'ghUfhYX'U``') * '[Ua Yg']b'h\Y'fYWYbh`m WcbWi XYX'gYUgcbž'gd`]hh]b['\Yf'h]a Y'df]a Uf]`m'VYhk YYb'h\]fX

 $\label{thm:conditions} $$ VUgY`UbX`Z]fgh`VUgY`'`< Yf`ghUh]gh]Wg`g\ck``U'dfca]g]b[``hU`Ybh``g\YUW\]Yj YX`('``\]hgž`&, `fi bgž`UbX`U`ghi bb]b[``%, `\ca Y`fi bgž`U`cb[k]h\`U`hYUa !`YUX]b[`(, `F6<math>=$ g"'=b`G97`d`Umž`g\Y`g\ck WUgYX`\YfUV]`]h]Yg`Yj Yb`Zi fh\Yfž`fYWcfX]b[``%*`\]hgž`Y][\h`fi bgž`UbX`g]I`\ca Yfi bg`k]h\`U`bchYk cfh\m`"(**`g`i [[]b[`dYfWYbhU[YžXYa cbghfUh]b[`\Yf`g_]``g`cb`h\Y`V][`ghU[Y"

HfUbgZYf'DcfhU`8mbUa]Wg

 $K \ U`_Yf g`hfUbgZYf`]``i ghfUhYg`U``Uf[Yf`hfYbX`UWfcgg`Wc``Y[Y`gdcfhgžk \YfY`hcd`Uh\`YhYg`UfY`UWh]j Y`m`gYY_]b[`VYhhYf`dfcgdYWhg`hcZi fh\Yf`h\Y]f`WUfYYfg"`BchUV`mž`ch\Yfg`\Uj Y`U`gc`YbhYfYX`h\YhfUbgZYf`dcfhU`ž``cc_]b[`hc`WUd]hU`]nY`cb`h\Y]f`g_]``g`UbX`Y`Yj UhYh\Y]f`[Ua Y"`H\Y`\YUh`cZh\Y`K ca Yb g`7c``Y[Y`K cf`X`GYf]Ygžk\]W\`fYWYbh`m`k fUddYX`i dž`hYbXg`hc`Wcbj Yfh`ghi XYbh!Uh\`YhYgZcW' g`cb`Z]bX]b[`h\Y`f][\h`Z]h`Zcf`h\Y]f`bYI h`a cj Ygž`Ug`fYZYWhYX`]bdcdi`Uf`X]gW' gg]cbg`Ufci bX`d`UmYfg`cb`hfUbgZYf`k]g\`]ghg"$

\times]b]b['h\Y'; Uhcfg

5g'U'f]g]b[''A b]cfž'K U`_Yf'fYdfYgYbhg'bch'A gh'U'fYd`UWYa Ybh'Zcf h\Y'[fUXi UhYX'FY[Ub'K U`g\'cb'h\Y'; Uhcfgž'Vi h'U'dchYbh]U``ghUf']b\Yf'ck b'f][\h''H\Y'; Uhcfg'UfY'fUa d]b['i d'h\Y]f'fYWfi]ha Ybh\YZZcfhgž'Ug'Yj]XYbWYX'Vm'Ubch\Yf'jYfVU``Wca a]ha Ybh'Zfca '9``UK Ygc`ck g_]ž'U'Zcfa Yf'WUhWXYf'UbX'ci hZ]Y`XYf'Zfca 'A]gg]gg]dd]GhUhY''K U`_Yf'UXXg'U'dck YfZi ``cZZYbg]jY'UXjUbhU[Y'UbXYI']YbW'Zfca '\Yf'h]a Y'Uh'A]ggci f]ž'k\YfY'g\Y'Wcbg]ghYbh`m``YX

 $\label{thm:condition} $$H\Y'dfcgdYWh'cZ'^c]b]b['U'dfc[fUa'']_Y': `cf]XUZ'k]h\']hg'f]WX $$\]ghcfm'UbX'ghfcb['Wca dYh]h]j YbYgg'k]h\]b'h\Y'G97Z'cZZYfg'\Yf'UZfYg\'ghUfh'UbX'h\Y'WXUbWY'hc'g\]bY'Uh'U'bYk''Yj Y`''<Yf]a dfYgg]j Y'hfUW_'fYWcfX'a YUbg'g\Y']g'gi fY'hc'VY'U'd`UmYf'hckk UhWX'k\Yb'h\Y'; Uhcfg'hU_Y'hc'h\Y'Z]Y`X'bYI h'gYUgcb''$

5g'k Y'_YYd'Ub'YmY'cb'Zi fh\Yf'XYj Y`cda Ybhgž']h g'k cfh\dcbXYf]b[.'k\YfY'a][\h'h\Y'Yj c`j]b['``UbXgWUdY'cZ'Wc``Y[Y gcZhVU````YUX'h\YgY'dfca]g]b['Uh\`YhYg3'K]h\'h\Y'hfUbgZYf'dcfhU`VYWca]b['U'd]j chU``UgdYWh'cZ'ghi XYbhlUh\`YhY'WUfYYfgž'cbY'h\]b[]g'Zcf'WYfhU]b h\YfY g'bc'g\cfhU[Y'cZ'Yl W]hYa Ybh'cb'h\Y'\cf]ncbZcf'Vch\'A UX]gcb'K U`_Yf'UbX'h\Y'; Uhcfgž'\YfU'X]b['U'bYkWXUdhYf']b'\Yf'Uh\`Yh]W'ci fbYm"

 $: cf'a \ cfY'XYhU]`g'cb'h\]g'W\&Ub[\]b[\ 'Ybj\]fcba \ Ybhž'mci \ 'WUb'fYUX a \ cfY'UVci h'K \ U`_Yf g'hfUbgZYf'\\ YfY ž'h\ Y'gdYW]Z]Wg'cb'h\ Y'A]ggci f] hYUa g'g]hi Uh]cb'\\ YfY ž'UbX']bg][\ \ hg']bhc'ch\ Yf'd`UmYfg']b'h\ YhfUbgZYf'dcfhU`'\\ YfY''$

8YhU]`g	
Cfh	C`Uh\Yž'?UbgUgž'l G5
EiY``Yb	• kkk"kWV"Wca
	• k k k "Wc`i a V]Uhf]Vi bY"Wca
	kkk"gdcfhg_YYXU"Wca

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