

7ci fgY[·]Cj Yfj]Yk

5W_bck `YX[Ya YbhcZ7ci bhfm

I BGK '5fhgž'8Yg][b'UbX'5fW]hYWhifY'?Ybg]b[hcb'UbX'DUXX]b[hcb'WUadigYg'UfY'Vi]hhcb'5Vcf][]bU`

7ci fgY 8YHJ] g

I b]hg cZ7 fYX]h'*

Gi a a UfmcZh\Y 7ci fgY

 $\label{thm:condition} $$H\Y'gh XmcZYa\ d]fY']g'Wf]hWU'']b'i\ bXYfghUbX]b['h\Y'dcghWc'cb]U''dfYgYbhz'h\Y'fY!Ya\ Yf[YbW''cZYa\ d]fYz dYfg]gh]b['dfcV'Ya\ g'cZ+bX][Ybci\ g'f][\hg'UbX'hc'WcbhYa\ dcfUfmi bXYfghUbX]b[g'cZ\i a\ Ub'f][\hg'a\ cfY[YbYfU''m''+h\]g'Wci\ fgY'k]'''dfcj]XY'U'Wf]hWU''YI Ua]bUh]cb'cZ9i fcdYUb'Wc'cb]U'']XYc'c[]Yg'UbX'dfUWhWyg''+h k]'''U'gc'ZcW'g'cb'h\Y']a\ dYf]U''YI dYf]YbW'g'cZWc'cb]nYX'dYcd'Ygz''cc_]b['Uhk Umg']b'k \]W''h\YmYb[U[YXk]h\Ya\d]fY'UWfcqq'd'UWYg'UbX'ha\Y''$

9a d]fYg`]b`K cfX`<]ghcfmk]``cZYf`mci 'h\Y`cddcfh b]lmhc'i bXYfghUbX`k \Uh`]a dYf]U`]ga 'k Ug`UVci hž\ck ']h W\Ub[YX`h\Y`ZUW\CZh\Y`k cfX`UbX`]rg`]a dUWhcb`h\Y`dfYgYbh'`H\Y`Wci fgY`k]```ZJa]`]Uf]nY`mci 'k]h\`_Ym WcbW\drgž`hYI hg`UbX`a Yh\cXc`c[]Yg`Zcf`h\Y`ghi XmcZWca dUfUh]j Y`]a dYf]U`]ga 'Ug`k Y```Ug`YUf`m!a cXYfb`UbX a cXYfb`\]ghcfm'`H\cgY`k \c'gi WW\ggZ\``mWca d`YhY`h\]g`Wci fgY`k]```ghfYb[h\Yb`h\Y]f`UbU`mh]WJ``UbX fYgYUfW\`g_]``g`Ug`k Y```Ug`h\Y]f`\]ghcf]WJ``_bck `YX[Y"

7 ci fqY @YUfb]b['Ci hMca Yq

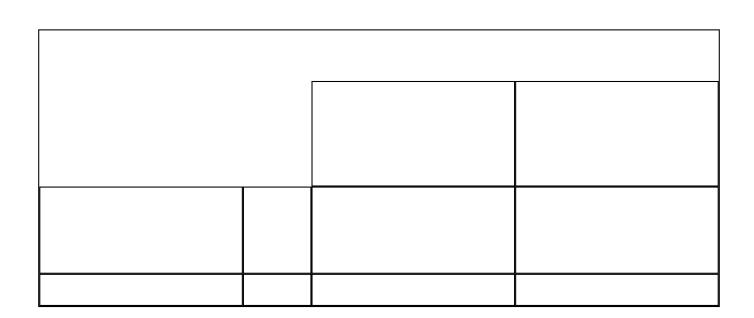
%" 5 bU`mgY`_YmYj Ybhgž`]XYUgž`dYcd`Y`UbX`hfYbXg`]b`]a dYf]U``\]ghcfm
&" F YUX``cb[!hYfa `dUhhYfbg`]b`Wc`cb]U`]ga `UbX`]a dYf]U``\]ghcfm'UbX`i bXYfghUbX`h\Y]f`g][b]ZJWUbWY
' " 9 b[U[Y`k]h\`Wf]nJWU``XYVUhYg`cb`]a dYf]U`]ga `UbX`]hg``Y[UWJYg
(" 5 bU`mgY`UbX`]bhYfdfYhXcW a Ybhg

) " 7 cbXi WijbXYdYbXYbhgWkc`Uf`mYbei]fm

HYUWX]b[GhfUhY[]Yg

H\Y`WcifgY`]g`XYg][bYX`hc`YbWcifU[Y`mci`hc`Yb[U[Y`Wf]h]WU``mk]h\`dUghiUbX`W\ffYbhXYVUhYg`UVcih
9ifcdYUb`]a dYf]U`]ga`UbX`]hg`]a dUWicb`Wc`cb]gYX`UbX`Wc`cb]g]b[`gcW]Yh]Yg":\dik]```U`gc`]bhfcXi WY`mci`hc
fYWYbhfYgYUfW\`cb`\ia Ub`f][\hg`UbX`h\Y`f][\hg`cZ\dix][Ybcig`dYcd`Yg"`9UW\`k YY_`U`gdYW]Z]W]ggi Y`k]```VY
h\Y`ZcW g`cZh\Y`fYUX]b[gz`h\Y``YWfifY`UbX`h\Y`gYa]bUf`X]gW gg]cb"

H\Y'fYUX]b[gžU```VUgYX'cb'gWkc`Uf`m`]hYfUhi fYždfcj]XY'WbhYI hi U`]bZcfa Uh]cb"'H\Y'cbY!\ci f``YWhi fY dfYgYbhg'9i fcdYUb'j]g]cbg'cZYa d]fY'VmYI d`cf]b['h\Y'_Ym]XYUgž]XYc`c[]Yg'UbX'gmghYa g'h\Uhigi ddcfhYX Ya d]fY!Vi]'X]b['UbX'a UbU[Ya Ybh''=b'h\Y'&bX'UbX'' fX'\ci fgžk Y'k]``ZcW g'cb'h\Y'j c]WYg'cZYa d]fY'Vm ghi Xm]b['XcW a Ybhg'dfcXi WYX'Vmh\cgY'k\c']j YX']b'h\cgY'Ya d]fYg'fWc`cb]gYX'dYcd'YgžcZZWJU`gžgYhiYfgŁ" K Y'U]a 'hc'i bXYfghUbX'\ck ']a dYf]U`gi V'YWg'YI dYf]YbWYX'Ya d]fYž']b'ch\Yf'k cfXgž\ck 'h\YmYb[U[Y'k]h\]hg']XYc`c[]Ygžghfi Whi fYg'UbX'dc']WJYg"'Ci f'dYfgdYWhj Y'fh\Y']a dYf]U`gi V'YWg''dc]bhcZj]Yk Ł'U``ck g'U a cfY'Wa d'YI i bXYfghUbX]b['cZ]a dYf]U`]ga 'UbX']hg'YZYWhg'cb'gi V'YWhidYcd`Yg"



Zfh\Yf`ZYYXVUW<u>"</u>"

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5 http://bxubww.F.Yei]fYa Ybhg

 $5\,\text{thY}\,b\,\text{XUbWY}\,\text{`cZHi}\,\,\text{tcf}]\,\text{U'g'}]g'\,\text{a}\,\,\text{Ub}\,\text{XUlcfm'}]b'\,\text{th}\,]g'\,\text{Wci}\,\,\text{fgY'''}I\,\,\,\text{bYI}\,\,\text{W}\,\,g\,\text{YX'}\,\text{UVgYbWY'}\,\text{Zfca}\,\,\text{'a}\,\,\text{cfY'}\,\text{th}\,\text{Ub'}\,\text{\&$i}\,\,\,\text{'cZ}\,\,\text{Hi}\,\,\text{tcf}]\,\text{U'g'}\,\text{k}\,\,]^{**}\,\text{fYgi}\,\,\text{'h}]b'\,\text{th}\,\text{Y'}\,\text{Uk}\,\,\text{UfX'}\,\text{U'ZU}]^{**}[\,\,\text{fUXY''}\,\,\text{Ub'$

 $9 \ UW 'h' \ hcf]U'']bW \ XYg'k \ cf_!fY`UhYX``YUfb]b['UWhj]h]Yg'gi \ W'' Ug'gh \ XYbh`YX'df]a \ Ufm'gci \ fW'g'UbU`mg]g'k \]W \ UfY'Wf]h]WU''hc'h\Y'Wci \ fgY``YUfb]b['ci \ hWca \ Yg''$

:]bU``mžh\YfY`UfY`hk c`UggYgga Ybhg`gW\YXi `YX`Xi f]b['hi hcf]U`.`U`a Uf_YX`dfYgYbhUh]cb`]b`k YY_`) `UbX`U WUgg`hYgh`]b`k YY_`%\$"

7ci fgY GWX YXi `Y

J]Yk 'WUqq'Ha YHJV'Y

H]a YHJV`Y

8 UHY	Hmd Y	7cbhYbh
K YY_'%'' \$'A Um!'' >i bY	@YWhi fY	⇒hfcXi WgcbihciJ]g]cbgiUbXiJc]WgcZ9ad]fY

5ggYgga Ybh	

Gi Va]gg]cb cZ5ggYgga YbhHUg_g

Hi fb]h]b Gi Va]gg]cb

Image: Ybwci bhYf'U'dfcV'Ya k \Yb'UhYa dhJb['hc'gi Va]hmci f'Ugg][ba Ybht\fci [\'Hi fb]hJbž'd'YUgY

HY'Yd\cbY'9| hYfbU'`Gi ddcfhcb'-',) '' ' ' %cf'Ya U]`'h\Ya 'cb'Y! hYfbU'hY'hgi ddcfh4 i bgk "YXi "Ui '"'Gi ddcfh
\ci fg'UfY', .\$\$Ua '-'%\$.\$\$da 'cb'k YY_XUmg'UbX'-.\$\$Ua '-').\$\$da 'cb'k YY_YbXg'fl *) 'XUmg'U'mYUfŁ"'=Imci
UfY'i bUV'Y'hc'gi Va]hmci f'Ugg][ba YbhXi Y'hc'U'ZJi 'hk]h\'Hi fb]hJb'mci 'a UmUdd'mZcf'Ub'Y! hYbg]cbž'Vi hmci
a i ghfYhJ]b'mci f'hJW_Yhbi a VYf'Zfca '9! hYfbU'`Gi ddcfhfU'cb['k]h\'Ubmch\Yf'fY'Yj UbhXcW a YbhgŁ'hc
]bWi XY'Ug'Yj]XYbW'hc'gi ddcfhmci f'Y! hYbg]cb'Udd']WUhJcb"'=Imci 'Ya U]`'9! hYfbU'`Gi ddcfhmci 'k]``
Ui hca UhJWJ'`mfYWY]j Y'U'hJW_Yhbi a VYfž'Vi h]Zmci 'hY'Yd\cbY'mci 'k]``bYYX'hc'gdYWJZJWJ'`mUg_'Zcf'cbY"
Hi fb]hJb'U'gc'dfcj]XYg'i dXUhYg'cb'h\Y]f'gmghYa 'ghUh' g'cb'Hk]hYf"

; YbYfU`mž'UggYgga Ybh'Hug_g'a i ghVY'gi Va]lthYX'Y`YWfcb]WU``mj]U'Y]h\Yf'Hi fb]h'Jb`cf'U'A ccX`Y Ugg][ba Ybh'' \pm ']bgHubW'g'k \YfY'h\]g']g'bchdcgg]V`Yž']hk]```VY'ghgca i `\cY'g'`U'A cc`V]ghcb['k X`Y

5 WUXYa]W + DZcfa Uh]cb

8 i Y 'hc 'Yj c'j]b['UXj]WY 'VmBGK '< YU'h\ \check{z} ghi XYbhg'a i gh\W\Y\W_'\Zcf'i d\X\Uh\Y\X']b\Zcfa \Uh\cb'fY[\Uf\X]b['cb\]bY 'Y\Ufb]b['Zcf'\U`'\5fhg\{z}8\Yg][\b'\Ub\X'\5f\W\]h\Y\Wi\fY'\Wci\fg\Yg'\h\]g'\h\fa\'fJ\]U'\A\cc\X'\Y'\cf'\Wci\fg\Y']b\Zcfa \Uh\cb\dfcj]\XY\X''\L

: cf`YggYbhJU``gh XYbh`]bZcfa UhJcb`fY`UhJb['hc.

- fYei YghgʻZcfʻYl hYbg]cb/
- `UhY gi Va]gg]cbg [i]XY`]bYg/
- fYj]Yk 'cZa Uf_g/
- I BGK '< YU`h\ 'UbX'GUZYhm'dc`]W]Yg/
- YI Ua]bUh]cb dfcWYXi fYg/

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