

7ci fgY⁻Cj Yfj]Yk

GHJZ7cbHJWh8YHJ]`g

7cbj Ybcfg

BUa Y	9a U]`	5j U]`UV]`] m	@cWUh]cb	D\cbY
HYffm7iaa]b[MW a a]b[4 i bgk "YXi "Ui			

GWXcc`7cbHJWh =bZcfa Uh]cb

GWkcc~cZ9Xi WUhcb

5fhgž:8Yg][b:UbX:5fWX]hYWhifY

; fci bX': `ccfž'A cfj Yb'6fck b'6i]`X]b['fl &\$Ł

H. 'Ž * %'f&Ł'-',) '%-++

9. YXi WUhjcb4 i bgk "YXi "Ui

K.\hdg.#kkk"Ufhg"i bgk "YXi "Ui #YXi WUhjcb

5W_bck `YX[Ya YbhcZ7ci bhfm

 $\label{eq:localized-loca$

 $\label{eq:continuous} \text{$\overset{\cdot\cdot}{=}$ U[Y'WciftY'gmcZhY'CZhY'Dfc'J]WY!7\twww.$``cf'$$ bX][Ybcig']$ $$BGK_{$^{\circ}}$$ bX][Ybcig'ghfUhY[m]$$ $$$

7ci fgY 8YW] g

 $I b hg c Z 7 f Y X h^*$

K cf_`cUX

%) \$`\ci fg`]bWi X]b[`WUgg`WcbHJWi\ci fgž`fYUX]b[gž`WUgg`dfYdUfUh]cbž`UggYgga Ybhž`Zc``ck`i d`UWhjj]hjYgž YhW

Giaa UfmcZh\Y 7ci fgY

H\Y'di fdcgY'cZh\]g'Wci fgY']g'hc'dfcj]XY'mci 'k]h\'Ub'cddcfh b]hmhc''YUfb'\ck 'hc'dfYdUfY'U'fYgYUfWk dfcdcgU'']b'YXi WUhjcb"'H\]g'Wci fgY'fYj]Yk g'h\Y'ghYdg']b'h\Y'fYgYUfWk'dfcW'gg'UbX'Wcbg]XYfg'h\Y Y'Ya Ybhgz'ghfi Wh fY'UbX'cf[Ub]gUhjcbz'UbX'k f]hjb['ghmY'cZfYgYUfWk'dfcdcgU'g']b'YXi WUhjcb"'±ik]`'YbUV'Y mci 'hc'd'Ub'YXi WUhjcbU''fYgYUfWk'UbX'ci hjbY'h\Y'ghYdg'i g]b['Uddfcdf]UhY'ghfi Wh fY'UbX'cf[Ub]gUhjcb''UbX k f]hjb['ghmY'Zcf'U'fYgYUfWk'dfcdcgU'']b'YXi WUhjcb"'±ik]`'Ugg]gh'mci 'k]h\'dfYdUf]b['mci f'dfcdcgU''Zcf WcbZfa Uhjcb''Ug'k Y`''Ug'mci f'cfU''dfYgYbhUhjcb"

8 i f]b['h\]g'HYfa ž'mci 'k]``k cf_'df]a Uf]`mk]h\ 'mci f'gi dYfj]gcfg'hc'dfYdUfY'Zcf'mci f'WcbZ]fa Uh]cb']b'HYfa '' "7 cbZ]fa Uh]cb'Wcbg]ghg'cZdfYgYbhUh]cb'cZmci f'fYgYUfW\ 'dfcdcgU``hc'mci f'WcbZ]fa Uh]cb'dUbY``hc[Yh\Yf'k]h\ Ub'cfU``dfYgYbhUh]cb'cb'mci f'dfc^YWf'

Bchy. H\]q'Wci fqy']q'cb`mUj U]`UV'Y'hc'9XDf8cWqhi XYbhq"

7 ci fgY @YUfb]b[Ci hWca Yg

%"

5ggYgga Ybh

5ggYgga YbhhUg_	K Y][\h	8iY'8UhY	7 ci fgY`@YUfb]b[Ci hWca Yg`5ggYggYX
%"'8 fUZhF YgYUfVX 'DfcdcgU`	*\$1	% #\$+#&\$&&`\$).\$\$`DA	%ž`&ž`¹
&""F YgYUfW\"DfYgYbHJh]cb	(\$1	Bch5dd`]WUV`Y	%ž'&ž''

5ggYgga Ybh% 8fUZhF YgYUfW DfcdcgU

8i Y'XUhY.'% #\$+#&\$&&'\$).\$\$'DA

HUg_% 8 fUZhU fYgYUfW dfcdcgU

EiU`]huhj Y`UbX`eiUbhjhuhj Y`ZYYXVUW_k]```VY`cb[c]b[`VYZcfYžXif]b[`UbX`UZhYf`h\Y`XUhU`Wc``YWhjcb"

H\]g`Ugg][ba Ybh]g`gi Va]hhYX`h\fci [\`Hi fb]h]b`UbX`gh XYbhg`Wb`gYY`Hi fb]h]b`g]a]`Uf]hmifYdcfhg"

5XX]h]cbU`XYhU]`g

5 fYgYUfWX dfcdcgU`gi Va]hhYX Ug`U`WcbZ]fa Uh]cb`cZWUbX]XUhi fY`XcW a Ybh'

 $Gi\ Va\]gg]cb\ cZ5ggYgga\ Ybh%k\]```VY'UZhYf'fY[\ i\ `Uf'Wcbgi\ `hUh]cb'k\]h`\ mci\ f'gi\ dYfj\]gcfg'UbX'cbW'h`YmUfYgUh]gZ]YX'h`Uhih`Y'fYgYUfW`dfcdcgU``]g'fYUXmZcf'WcbZ]fa\ Uh]cb'''<math>\pm$ ik\]```HU_Y'd`UW''UVci\ hik c'k YY_g'df]cf'hc h`Y'UXj\ Yfh]gYX'WcbZ]fa\ Uh]cb'XUhYg'UbX'ghi XYbhg'k\]```VY'UXj\]gYX'cb'\ck'\hc'i\ d`cUX'h\Y]f'XcW'a\ Ybhg'hc : F\ -\$'''

5ggYgga Ybh& FYgYUfW DfYgYbhUh]cb

GhUfh'XUhY. \$\%\\$, \%\\$&&\\$).\$\$ DA

HUg_'&.`CfU``dfYgYbHJhjcb`cZh\Y`fYgYUfW\`dfcdcgU``Zcf`U`gaU```fYgYUfW\`dfcYWf'`EiU`]HJhjjY`UbXeiUbhjHJhjjY`ZYYXVUW_k]h\]b'%\$`XUmg`cZgiVa]gg]cb"

Ε i U`]hJhJj Y`UbX`ei UbhJhJhJj Y`ZYYXVUW_k]```VY`cb[c]b[`VYZcfYžXi f]b[`UbX`UZhYf`h\Y`XUhJ`Wc```YWJcb"

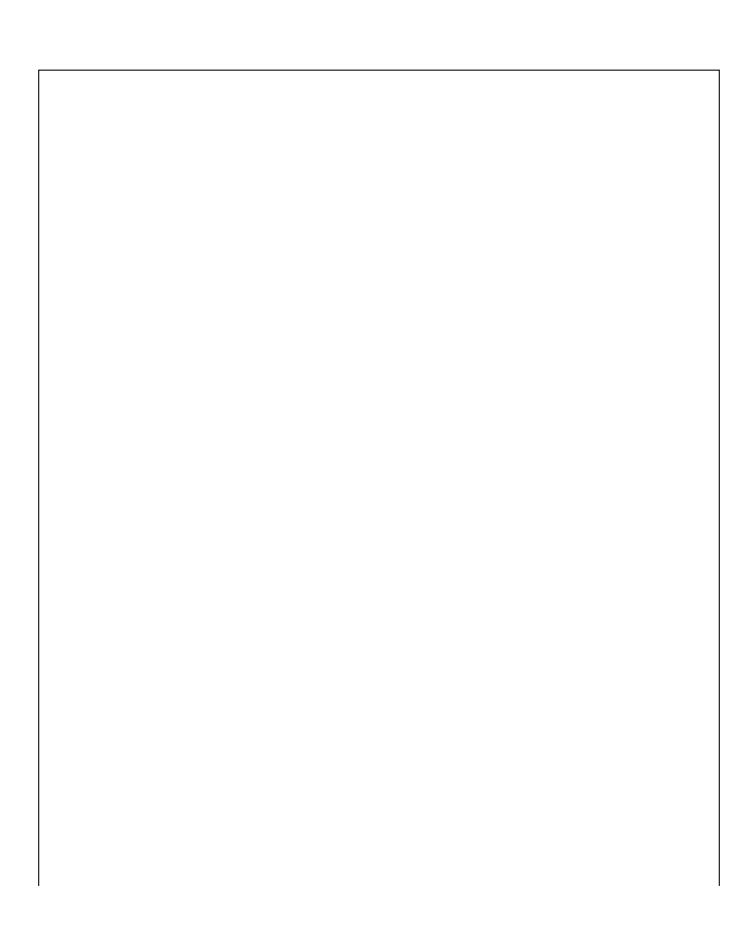
H\]g`]g`h\Y`Z]bU``UggYgga Ybh

5XX]h]cbU`XYhJ]`g

Mci k]``dfYgYbhHug_&ug'u'%) a]bi hY'cfu`dfYgYbhUhJcb'cb'h\Y'XUmcZWcbZfa UhJcb'fYj]Yk"

Gi WWggZ ``WcbZfa Uhjcb'cZWUbX]XUhi fY'k]``VY'XYhYfa]bYX'h\fci [\'h\Y'WcbZfa Uhjcb'fYj]Yk"

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GdYWJZJW7 f]hYf]U	"flŁ	– 2fŽŁ
; YbYfU`Wcaa Ybhg#YWcaa YbXUh]cbg'Zcf'bYl h'h]aY.'		

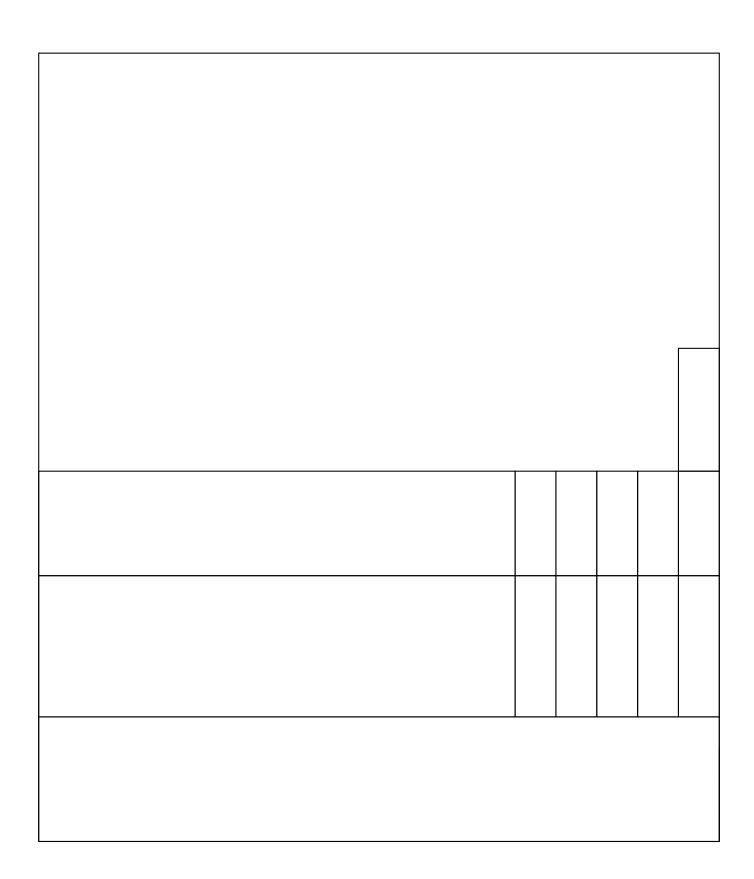
FYWca a YbXYX.

'#&\$'fl@'DG'7F'8B'<8L

K Y][\h]b[.

* \$1

B6. H\Y'h\W_g']b'h\Y'j Uf]ci g'Vcl Yg'UfY'XYg][bYX'rc'dfcj]XY'ZYYXVUW_'rc'ghi XYbhg/h\Ym'UfY'bch'[]j Yb Yei U'`k Y][\h]b'XYhYfa]b]b['r\Y'fYWca a YbXYX'[fUXY"8YdYbX]b['rcb'h\Y'bUhi fY'cZ'h\Y'UggYgga Ybh'HUg_ž YWhi fYfg'a Um'U`gc'WcbhYl hi U`]gY'UbX#cf'Ua YbX'h\YgY'gdYWjZ]WWf]hYf]U"'H\Y'fYWca a YbXYX'[fUXY']g hYbhUhj Y'cb`mžgi VYWhic'ghUbXUfX]gUhjcb'dfcWrggYg'UbX'Uddfcj U``Vmh\Y'GW\cc``cZ9Xi WUhjcb'@YUfb]b[UbX'HYUW\]b['7 ca a]hYY"



 $FYWcaaYbXYX. \qquad \text{\#}\$fl@DG7F8B<8L \qquad KY][\h]b[. \qquad (\$l)$

5 my bx 5 drhhhytox X ld by Y Y biffy Y ening f Y a Y b hg

GWkcc`cZ'9Xi WUh]cb'5HhYbXUbWY'FYei]fYa Ybh

H\Y`GW\cc``cZ9Xi WUhjcb`fG98EfYei]fYg`ghi XYbhg`a YYhU`a]b]a i a `UhhYbXUbW\`fYei]fYa YbhcZ, \$i `cZU``gW\YXi `YX`WUggYg`f]"%"`YWhi fYgžhi hcf]U`gžk cf_g\cdgžgYa]bUfgE'Zcf`U``Wci fgYg":5hhYbXUbW\`]b`dYfgcb`]g

	ı	
I		

FYgci fWyg

DfYgWf]VYX F Ygci fWYg

5```ghi XYbhg`UfY`YI dYWYX`hc`UWWgg`h\Y`Wci fgYfg`A ccX`Y`g]hY`cb`U`fY[i`Uf`VUg]g`Zcf`Wci fgY`a UhYf]U`gž]bZcfa Uh]cbžUbX`Ubbci bWYa Ybhg"

 $H\YfY`UfY`bc`dfYgWf]VYX`hYI\ hg"`GYY`A\ ccX`Y`Zcf`fYWca\ a\ YbXYX`hYI\ hg`UbX`h\Y`fYUX]b[`gWXYXi``Y''$

7ci fgY 9j U'i Uhjcb UbX 8Yj Y'cda Ybh

Ghi XYbhiZYXVUW_k]``VY`[Uh\YfYX`Zcfa U``mih\fci [\`A m9I dYf]YbWY`gi fj Ymg`UbX`ghi XYbhiWcbgi `hUh]cb Wca a]hhYYg`UbX`]bZcfa U``mih\fci [\`Ya U]``UbX`cb`]bY`a YYh]b[`'W\YW_!]bg"

Gi Va]gg]cb cZ5ggYgga YbhHUg_g

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

Image: Ybwei bhyfu'dfcv'ya k \yb'uhhya dhjb['hc'gi va]hmci f'Ugg][ba Ybhh\fci [\ 'Hi fb]h]bž'd'YUgY

Hy'Yd\cby'9| hy'fbu''Gi ddcfhcb'-',) '' ' ' %cf'Ya U]''h\Ya 'cb'Y! hy'fbu'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'mYUft"'=Z'mci
UfY'i bUV'Y'hc'gi va]hmci f'Ugg][ba YbhXi Y'hc'U'ZJi 'hk]h\ 'Hi fb]h]b'mci 'a UmUdd'mZcf'Ub'Y! hy'bg]cbž'Vi hmci
a i ghfYhJ]b'mci f'h]W_Yhbi a VYf'Zfca '9! hy'fbU''Gi ddcfhfU'cb['k]h\ 'Ubmch\Yf'fy'Yj UbhXcW a Ybhgt'hc
]bWi XY'Ug'Yj]XYbW' hc'gi ddcfhmci f'Y! hy'bg]cb'Udd']WUh]cb"'=Zmci 'Ya U]''9! hy'fbU''Gi ddcfhmci 'k]'`
Ui hca Uh]WJ'`mfYW']j Y'U'h]W_Yhbi a VYfZ'Vi h]Zmci 'hy'Yd\cby'mci 'k]``bYYX'hc'gdYW]Z]WJ'`mUg_'Zcf'cby''
Hi fb]h]b'U'gc'dfcj]XYg'i dXUhy'g'cb'h\Y]f'gmghYa 'ghUh' g'cb'Hk]hyf''

; YbYfU`mž'UggYgga YbhiHug_g'a i ghVY'gi Va]hhYX'Y`YVWfcb]\WJ``mij]U'Y]h\Yf'Hi fb]h]b'cf'U'A ccX`Y Ugg][ba Ybh''=b']bgHJb\W'g'k \YfY'h\]g']g'bchdcgg]V`Yž']hk]```VY'gHJhYX'cb'mci f'\\circ i fgY'g'A ccX`Y'g]hY'k]h\U`hYfbUh]j Y'gi Va]gg]cb'XYHJ]`g"

cfi]bZcfa Uhjcbicbi\ckihcigi Va]hUgg][ba Ybhgicbi]bYij]UiA ccXiY.i\hdg.#gh XYbhi bgk "YXi "Ui #\ck! gi Va]hUgg][ba Ybha ccXiY

5 WUXYa]W<cbYghmUbX D`U[]Uf]ga

D`U[]Uf]ga `]g`i g]b['h\Y`k cfXg`cf`]XYUg`cZch\Yfg`UbX`dfYgYbh]b['h\Ya `Ug`mci f`ck b"`=hWJb`hJ_Y`a Ubm Zcfa gžZca `XY`]VYfUhY`W\YUh]b['hc`UVW]XYbhJ``mWcdm]b['Zfca `U`gci fWY`k]h\ci hUW_bck `YX[Ya Ybh'

IBGK [fcidgdu[]Uf]ga]bhch\YZc``ck]b[WUhY[cf]Yg.

 $\begin{tabular}{ll} \hline \textbf{7.cdm}b[...] g]b[...] MY cf'j Yfmg]a] ``Uf'k cfXg'hc'h\Y'cf][] bU``HYI hcf']XYU'k]h\ci h`U\W_bck ``YX[]b[...] b[...] MY cf'i g]b[...] bU``HYI hcf']XYU'k]h\ci h`U\W_bck ``YX[]b[...] b[...] MY cf'i g]b[...] a UhYf]U`gž']XYUg'cf'WcbW'dhg'\faca '`U'Vcc_\text{z}'Ufh]WY\text{z} bU'Vcd_\text{z}'Ufh]WY\text{z} bU'Vcd_\text{z}'Ufh]WY\text{z}'Ufh]WY\text{z} bU'Vcd_\text{z}'Ufh]WY\text{$

5 WUXYa]W + DZcfa Uh]cb

8 i Y 'hc 'Yj c'j]b['UXj]\W 'VmBGK '< YU't\ ž'ghi XYbhg'a i gh'\W.Y\<u>V</u>'Zcf'i dXUh\YX']bZcfa Uh]cb 'fY[UfX]b['cb`]bY 'YUfb]b['Zcf'U``'5fhgž'8Yg][b 'UbX'5f\W.]h\Y\ni fY '\wci fgYg't\]g't\Yfa 'f]]U'A ccX`Y'cf'\wci fgY']bZcfa Uh]cb dfcj]\XYX"Ł

: 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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