H\Y'j]Wh]a 'k Ug'fig\YX'hc'U``cWU``\cgd]hU``UbX'fYa U]bg`]b'Wf]h]WU` WcbX]h]cb"'=b'U'V]X'hc'ibfUjY``h\Y'W]fW'aghUbWYg'giffcibX]b['h\]g hfciV`]b[']bW]XYbhž'h\Y'; D8']g'WU``]b['cb'h\Y'Wcaaib]hm'Zcf

&\$\$`V`cW\_`cZ`G9`%( h\`GhfYYhž'; U]bYgj ]``Yž: @ž'I G5`!
; U]bYgj ]``Y`fYg]XYbhg`k YfY`fcW\_YX`Vm`h\Y`bYk g`cZ`U`gYf]ci g
]bW]XYbh`h\Uh`hcc\_`d`UWY`]b`Bcfh\`@]bWc`b`<Y][\hg``UhY`A cbXUm
Yj Yb]b[ "'; U]bYgj ]``Y`dc`]WY`UfY`]bj Ygh][ Uh]b[ `Ub`U[ [fUj UhYX
VUhhYfm!\ca ]W]XY`UhhYa dh`UZhYf`Ub`i bWcbgW]ci g`a U`Y`k Ug
X]gWcj YfYX`cb`h\Y`fcUXk Um`k ]h\`gYj YfY`\YUX`hfUi a U"`H\Y
X]ghfYgg]b[ `Yj Ybh`i bZc`XYX`Ufci bX`, .) )`d"a "`]b`h\Y`&\$\$`V`cW\_`cZ
G9`%( h\`GhfYYhžXfUk ]b[ `ei ]W\_`fYgdcbgYg`Zfca `5`UW\i U`7ci bhm
: ]fY`FYgW'Y`UbX`h\Y`; U]bYgj ]``Y`Dc`]WY`8YdUfha Ybh`f! D8'L"</pre>



; U]bYgj ]``Y'dc`]WY']bj Ygh][ UhY'U'gYj YfY'VUhhYfm`]bW]XYbh`]b Bcfh\`@]bWc`b'<Y][ \hgž'gYY\_]b[ 'di V`]WUgg]ghUbWY'Zcf ]bZcfa Uh]cb"

## ; U]bYgj]``Y`G\cW\_.`Dc`]WY`DfcVY 5[[fUjUhYX`6UhhYfm!<ca]W]XY`5hhYadh°

j]c`Ybh`Wf]a Y`cZ`cbY`]b`%' ' "

: cf'WcbhfUghžcb`m'UVci h'(i 'cZ: `cf]XU'Wca a i b]h]Yg'\Uj Y'U \][\Yf'Wf]a Y'fUhY'h\Ub'; U]bYgj ]``Y"'H\Y'j ]c`Ybh'Wf]a Y fUhY WUdhi f]b['cZZYbgYg'gi W\'Ug'fUdYža i fXYfž'UbX'Ufa YX fcVVYfm di hg'; U]bYgj ]``Y'k ]h\'cbY'cZ'h\Y'\][\Ygh'fUhYg']b'h\Y Wci bhfmž'k ]h\'U'dUfh]W'`Uf`m'U`Ufa ]b['W\UbWY'cZ'YI dYf]YbW]b['U i la`Ybb'Wfla V'cZ'cbY'lb'W' 'U'

XUibh]b[ h\ci[\h"

8]j]b[`XYYdYf`]bhc`h\Y``cWU``Wf]a Y`XUhUž` BY][\Vcf\ccXGWci h"Wca `dU]bhg`U`ghUf\_`d]Whi fY`k]h\`U`Wf]a Y fUhY`cZ`', `dYf`cbY`h\ci gUbX`fYg]XYbhg"`H\]g`ghUh]gh]W]g`Ua cb[ h\Y`\][\Ygh`UWfcgg`h\Y`bUh]cbž`dfca dh]b[`gca Y`hc`Ug\_ž` K \Uh g [c]b[`cb`]b`ci f`Wca a i b]hm3 `H\Y`W\UbWY`cZ`VYWca ]b[`U`j]Wh]a cZY]h\Yf`U`j]c`Ybh`cf`dfcdYfhm`Wf]a Y`\YfY`]g`cbY`]b`&\* U

## H\Y`6][[Yf`D]WhifY

 $\label{eq:constraint} WcbWYfb]b[`hfYbX`h\Uh`WUbh`VY`][bcfYX"$ 

K \]`Y`; U]bYgj ]``Y`a UXY`ghf]XYg`]b`fYXi W]b[`]hg`Wf]a Y`fUhY`Vm`(ı Wca dUfYX`hc`&\$&&ž`h\Y`bi a VYf`cZ`\ca ]W]XYg`]bWfYUgYXž`k ]h\`%\* fYWcfXYX`h\]g`mYUf Z]j Y`a cfY`h\Ub`]b`&\$&&"`H\Y`j ]c`Ybh`Wf]a Y fUhY`ghUbXg`Uh`(' \*"%ž`g][ b]Z]WUbh`m`UVcj Y`h\Y`bUh]cbU``Uj YfU[ Y`cZ &\$' "("`FYg]XYbhg`a ][ \h`g][ \`Uh`gi W\`ghUh]gh]Wgž`Vi h`h\Ym`fYZ`YWh`U

UVcihidiV`]WgUZYhmi]bih\Y'UfYU"

H\]g`]bW]XYbh'UXXg'hc'U'Wca d`YI 'bUffUh]j Y'gi ffci bX]b['Wf]a Y']b ; U]bYgj ]``Y"'5WWcfX]b['hc'**7]hm! 8 UhU"Wc**a ž'h\Y'W]hm'\Ug'U'Wf]a Y fUhY'cZ'' \* (']b'&\$&' ž'k \]W\']g'%") 'h]a Yg'\][\Yf'h\Ub'h\Y'bUh]cbU` Uj YfU[Y"'=b'ZUWhž; U]bYgj ]``Y g'Wf]a Y'fUhY'fUb\_g'\][\Yf'h\Ub - ' "+ı 'cZ'I "G"'W]h]Ygž'gYhh]b['h\Y'ghU[Y'Zcf'gYf]ci g'X]gW'gg]cbg

## H\Y`@cWU``7f]a Y`GbUdg\ch

Ugg]ghUbWY"`5bmcbY`k]h\`]bZcfaUh]cb`]g`YbWcifU[YX`hc`fYUW\`cih hc`; D8`XYhYWh]jYg`Uh`')&!-))!%,%,"`:cf`h\cgY`k]g\]b[`hc`fYaU]b Ubcbmacigž`h]dg`WUb`VY`giVa]hHYX`hc`5`UW\iU`7cibhm`7f]aY GhcddYfg`Uh`')&!'+&!+,\*+`cf`cb`]bY`Uh`kkk"ghcdWf]aY"hj" Cb'U'`][\hYf'bchYž'; U]bYgj]``Y'\Ug'U'f]W\'hUdYghfm'cZ'Wcaaib]hm `]ZY'h\Uh'cZhYb'cjYfg\UXckg'h\YgY'[f]a'ghUh]gh]Wg'''<ckYjYfž'k]h\ U'hchU``cZ'(%&'fY[]ghYfYX'gYI'cZZYbXYfg'UbX'U'`Uk'YbZcfWYaYbh hYUa'Wcadf]gYX'cZ''%%'Zi``!h]aY'Yad`cmYYgž']bWiX]b['&&)'dc`]WY cZZ]WYfgž'h\Y'X]gWigg]cb'cZ'gUZYhm'fYaU]bg'Uh'h\Y'ZcfYZfcbh''

5g'h\Y`]bjYgh][Uh]cb`]bhc`h\Y`fYWYbh'U[[fUjUhYX`VUhhYfm!\ca]W]XY UhhYadh'i bZc`Xgž'h\Y`Wcaaib]hm`]g`fYa]bXYX`cbWY`U[U]b.`]h`hU\_Yg U```\UbXg`cb`XYW\_`hc`aU\_Y`U`bY][\Vcf\ccX`U`gUZYf`d`UWY`hc``]jY" =Z`mci`\UjY`]bZcfaUh]cbž'Xcbh`\Yg]hUhY`hc`gdYU\_`id"`9UW\`d]YWY cZ`]bZcfaUh]cb`WUb`\Y`d`WfUW\_`h\Y`WUgY`UbX`ZcghYf`U`gYbgY`cZ gYWf]hm`h\Uh`YjYfmcbY`XYgYfjYg"

8YhU]`g	
Cfh	&\$\$`V`cW_`cZ`G9`%(h\`GhfYYhž`;U]bYgj]``Yž':@ž
	I G5
EiY``Yb	<ul> <li>k k k "a U]bghfYYhXU]`mbYk g"Wca</li> </ul>
	<ul> <li>k k k "W]hm! X U hU "Wc a</li> </ul>
	• k k k "bY][∖Vcf∖ccXgWcih"Wca

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