



7 ci fgY`Cj Yfj ]Yk

`GHUZZ7cbhUW`i8YHU]`g`

`7cbj Ybcfg`

B Ua Y	9a U]`	5j U]UV]]m	@cWUhcjb	D\cbY
Hcbm@ci [ \`UbX	rcbm`ci [ \`UbX4 i bgk "YXi "Ui			

GW\cc``7cbhUW`i`bZcfa Uh]cb

GW\cc``cZ9Xi WUhcjb

5ftg`UbX`GcW]U`GWYbWg

@Yj Y`%&`>c\b`; ccXgY``6i ]X]b[ `fl &\$Ł

H. `Z`\*`%`f&Ł`-`'` )` `%` ++

9. YXi WUhcjb4 i bgk "YXi "Ui

K . YXi WUhcjb"Uftg"i bgk "YXi "Ui

5HhYbXUbW`F Yei ]fYa Ybhtg

5XX]h]cbU`GW\cc``cZ9Xi WUhcjb`UHhYbXUbW`fYei ]fYa Ybhtg

h]g`YI dYWYX`h`UhUbmghi XYbhYbfc`YX`]b`Ub`98GH`Wci fgY`k`]h`h`Y`GW\cc``cZ9Xi WUhcjb`k`]`a`U`\_`Y`U`  
 Wci a`a`]h`a`Ybhic`h`Y`f`Y`Ufb]b[ `UbX`UHhYbX`U`WUggYg`]b`Z` ``k` \YfY`WcbhYbh]g`XY`]j`YfYX`]b`U`ZUW`!h`!ZUW`  
 a`cXY`YI`W`dh]b`W`fU]b`W`fW`a`ghUbW`g`k` \YfY`UVgYbW`]g`Xi`Y`h`c`]`b`Yggz`a`]gUXj`Ybh`fY`cf`i`bZcFygyYb`  
 W`fW`a`ghUbW`g`VYncbX`h`Y`gh`XYbhg`Wcbf`c`"5`a`]b]a`i`a`UHhYbXUbW`fYei ]fYa YbhicZ, \$i` ]g`fYei ]fYX`Zc`f`  
 YUW`Wci fgY`" `b`W`fU]b`W`fW`a`ghUbW`g`z`U`gh`XYbhia`Uma`]gg`i`d`h`c`&\$i` `cZU`Wci fgY`k`]h`ci`h`Zcfa`U`  
 Udd`]WUhcjb`UbX`i`d`h`c`" `i` `cZU`Wci fgY`k`]h`Zcfa`U`XcW`a`YbhUhcjb`fgYbhj`]U`Ya`U]`h`c`Wci fgY`Wcbj`YbcfŁ`  
 dfcj`]X]b[ `U`h`Y`fYei ]fYa Ybhtg`XYHU]YX`VY`ck`UfY`a`YH`Gh`XYbhtg`bcha`YYh]b[ `h`Y`UHhYbXUbW`  
 fYei ]fYa Ybhtg`ci`h]bYX`UVcj`Y`k`]`VY`Uk`UfYX`Ub`i`bgUhgZUWc`fm: U]`fl` : Ł`Zc`f`h`UhWci fgY`fY[ UfX`Ygg`cZ`  
 h`Y`f`d`Y`f`Zcfa`UbW`]b`h`Y`UggYgga`YbhUg`g`c`f`c`h`Y`f`fYei ]fYa Ybhtg`Zc`f`h`Y`Wci fgY`"

: cf`Z`f`h`Y`f`]b`Zcfa`Uh]cb`cb`9Xi`WUhcjb`Wci`fgY`UHhYbXUbW`fYei ]fYa Ybhtg`z`d`Y`UgY`fY`ZY`f`h`h`Y`fY`gd`Y`W]j`Y`  
 98GH`A`ccX`Y`a`cXi`Y`f`g`Ł`"

5WUXYa ]W`bZcfa Uh]cb`

: cf`YggYbh]U`gh`XYbh]bZcfa Uh]cb`fY`Uh]b[ `h`c`fYei Ygrg`Zc`f`YI`h`bg]cb/fYj`]Yk`cZa`Uf`g`/c`W`W`d`Uh]cbU` \YU`h`  
 UbX`g`UZ`f`m`/YI`Ua`]b`Uh]cb`dfc`W`Xi`fYg`/gd`Y`W]U`Wcbg]XYfUhcjb`]b`h`Y`Yj`YbhicZ`]`b`Ygg`cf`a`]gUXj`Ybh`fY`/  
 gh`XYbhYei ]m`UbX`X`]g`UV]]m`/UbX`c`h`Y`f`YggYbh]U`UWUXYa ]W]bZcfa Uh]cb`z`  
 gYY` \h`rdg`##`k`k`"Uftg"i`bgk`"YXi`"Ui`#W`ffYbh]gh`XYbhtg#UWUXYa ]W]bZcfa Uh]cb#dfc`h`c`W`g`!`[`i`]XY`]b`Yg`#`

7ci fgY'8YHJ]`g

7fYX]hDc]bHg`\*`

Kcf\_`cUX

%)\$`ci fg]bWf X]b[ `WUgg`WcbHWH\ci fgžfYUX]b[ gž`WUgg`dfYdUfUf]cbžUggYgga YbžZc``ck`i d`UWfj ]hYgž  
YHW

Gi a a UfmcZ'h\Y'7ci fgY

5i ghfU`]Ub`DfcZYgg]cbU` ; fUXi UhY`HYUW ]b[ `GHUbXUfXg

GHUbXUfX	8YgW]dhcb
) "%"	8Yj Y`cd`UbX`Udd`mU`Wca dfY\Ybg]j Y`fUb[ Y`cZUggYgga YbhgfUH[ ]Yg`hc`X]U[ bcgY`YUfb]b[ `bYYXgZ`Wca d`mk ]h`W ff]W`i`a`fYei ]fYa Ybhg`UbX`gi ddcfhWc`YU[ i Yg`hc`Yj U`i UhY`hY`YZYW]j YbYgg`cZHAY]f`UddfcUWXYg`hc`UggYgga Ybh`
) "( "	K cf`_k ]h`Wc`YU[ i Yg`hc`i gY`XUH`Zca` ]bhYfbU`UbX`Yi hYfbU`gh`XYbhUggYgga Ybhg`Zcf`Yj U`i Uh]b[ `YUfb]b[ `UbX`hYUW ]b[ ž]XYbh]zh]b[ `]bhYfj Ybh]cbg`UbX`a`cX]zh]b[ `hYUW ]b[ dfUW]W`
* "%"	5bU`ngY`hY`5i ghfU`]Ub`DfcZYgg]cbU`GHUbXUfXg`Zcf`HYUWXYfg`hc`d`Ub`dYfgcbU`dfcZYgg]cbU`XYj Y`cda Ybh[ cU`gZgi ddcfhWc`YU[ i Yg`hc`]XYbh]ZmUbX`UW ]Yj Y`dYfgcbU`XYj Y`cda Ybh[ cU`g`UbX`dfY!gYfj ]W`hYUWXYfg`hc`]a`dfcj Y`WUggfcc`a`dfUW]W`
* " " "	h]UH`UbX`Yb[ U[ Y`]b`dfcZYgg]cbU`X]gW`gg]cbg`k ]h`Wc`YU[ i Yg`]b`U`fUb[ Y`cZc`fi`a`g`hc`Yj U`i UhY`dfUW]W`X]fYW]X`Uh]a`dfcj ]b[ `dfcZYgg]cbU`_bck`YX[ Y`UbX`dfUW]W`ž`UbX`hY`YXi W]h]cbU`ci`h`ca`Yg`cZgh`XYbhg`
* "( "	9b[ U[ Y`k ]h`Wc`YU[ i Yg`hc`Yj U`i UhY`hY`YZYW]j YbYgg`cZHAYUWYf`dfcZYgg]cbU`YUfb]b[ UW]j ]h]Yg`hc`UXXFYgg`gh`XYbh`YUfb]b[ `bYYXg`
+ "&"	Gi ddcfhWc`YU[ i Yg`hc`fYj ]Yk`UbX`]bhYdfYh`Y[ ]g`Uhj`Yž`UXa`]b]ghfUhj`Yž`UbX`cf[ ]b]gUh]cbU`fYei ]fYa Ybhg`ž`dc`]W]Yg`UbX`dfcW]ggYg`

# 5ggYgga Ybh

## 5ggYgga YbhHUg\_g`

5ggYgga YbhHUg_	K Y][ \h	Gh XYbh@YUfb]b[ Ci hWta Yg 5ggYggYX	5 #HG@DfcZYgg]cbU` ; fUXi UHY HYUW ]b[ `GHUbXUfXg`5ggYggYX	8i Y 8UHY
5bbchUHYX DcfhZ`]c`	( \$i	&Z	*"% " Z* " " Z* "( "	\$- #-\$- #& \$% \$) . \$\$ DA
A Ybhcf]b[ `F Ydcfh	* \$i	%z&	) "% " Z) "( " Z* "% " Z* " " Z* "( " Z+ "&"	& , #/\$#& \$% \$) . \$\$ DA

D`YUgY`fYZf`hc`3gefD`[S` BdaXWee[a` S`^E fS` VSdVe XadFWSUZWde`cb`hAY`dfYj`]ci`g`dU[ Y

## 5ggYgga Ybh8YHU]`g

5ggYgga Ybh%`5bbchUHYX`DcfhZ`]c`

GHUfhXUHY.`

8YHU]`g. `5ggYgga YbhHUg\_`%5bbchUHYX`DcfhZ`]c`&\$\$ \$!&) \$\$`k cfXgK f]hYb`ZYXVUW\_`" %\$`Vi`g]bYgg`XUmg  
UZfYf`gi`Va`]gg]cb"

5XX]h]cbU`XYHU]`g.

%"; YbYfUHY`tk`c`Yj`]XYbWV`gYhg`cZmci`f`a`Ybhcf]b[ `dfUW]WV`hUhXYa`cbghfUHY`a`Ybhcf]b[ `UhihAY`d`Ubb]b[ `Z  
hYUW ]b[ `UbX`UggYgga`YbhghU[ `Yg`cZ`hAY`hYUW ]b[ `!`YUfb]b[ `WVWY`ZY`["Z`mci`a`Um\Uj`Y`Ub`UbbchUHYX`Yggcb  
d`Ub`cf`i`b]hcZk`cf`z`Ub`cVgYfj`Uhcb`ZYXVUW\_`g\YYhUbX`UbbchUHYX`k`cf`\_`gUa`d`Yg`Ug`cbY`Yj`]XYbWV`gYh  
&"`5bbchUHY`hYgY`Yj`]XYbWV`gYhg`i`g]b[ `hAY`Uddfcdf]UHY`dfcZYgg]cbU`ghUbXUfXg`Zcf`mci`f`ck`b`a`Ybhcf]b[  
dfUW]WV`"6Y`gi`fY`hc`]bW`i`XY`hAY`bYi`hghYdg`hUhmci`k`ci`X`hU`Y`]b`hAY`a`Ybhcf]b[ `dfcWV`gg"

Hi`fb]h]b`gYh]b[ .`H\]g`Ugg][`ba`Ybh]g`gi`Va`]hYX`h`fci`[`\`Hi`fb]h]b`UbX`ghi`XYbth`WUb`gY`Y`Hi`fb]h]b`g]a`]Uf]m  
fYdcfng"

5ggYgga Ybh&`A`Ybhcf]b[ `F`Ydcfh

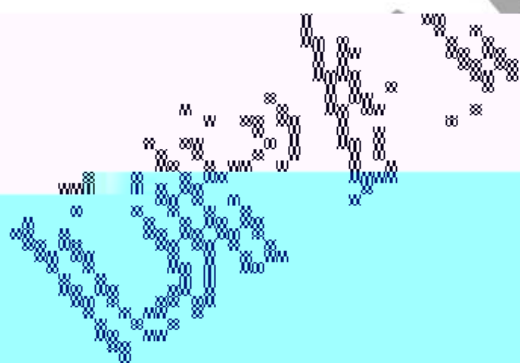
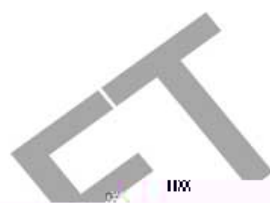
GHUfhXUHY.`

8YHU]`g. `5ggYgga YbhHUg\_`&A`Ybhcf]b[ `F`Ydcfh`\$\$\$!` ) \$\$`k cfXgK f]hYb`ZYXVUW\_`" %\$`Vi`g]bYgg`XUmg  
UZfYf`gi`Va`]gg]cb"

5XX]h]cbU`XYHU]`g.

%"; YbYfUHY`tk`c`Yj`]XYbWV`gYhg`cZmci`f`a`Ybhcf]b[ `dfUW]WV`hUhXYa`cbghfUHY`a`Ybhcf]b[ `UhihAY`d`Ubb]b[ `Z  
&"`5bbchUHY`hYgY`Yj`]XYbWV`gYhg`i`g]b[ `hAY`Uddfcdf]UHY`dfcZYgg]cbU`ghUbXUfXg`Zcf`mci`f`ck`b`a`Ybhcf]b[  
dfUW]WV`"6Y`gi`fY`hc`]bW`i`XY`hAY`bYi`hghYdg`hUhmci`k`ci`X`hU`Y`]b`hAY`a`Ybhcf]b[ `dfcWV`gg"





@YWh fYf

F YWta a YbXYX. ' ' ' #&\$'fl @DG'7F'8B'<8E'

k Y][ \h]b[ ' : '&\$i

'B 6. 'h]g'h]W\_g]b'hY'j Uf]ci g'Vcl Yg'UbX'XYg][ bYX'hc'dfcj ]XY'ZYXVUW'hc'ghi XYbHg/hYmiUFY' bch[ ]j Yb  
Yei U'k Y][ \h]b'XYHfa ]b]b[ 'hY'fYWta a YbXYX' [ fUXY"8YdYbX]b[ 'cb'hY'bUhi fY'cZ'hY'UggYgga YbhtUg\_ž  
'YWh fYfg'a UmU'gc'WtbhYI hi U'jnY'UbX#cf'Ua YbX'hYgY'gdYWZWWW]Hrf]U" : H\Y'fYWta a YbXYX' [ fUXY' ]g  
hYbHUhj Y'cb'mžgi Va 'YWh'hc'ghUbXUfX]gUh]cb'dfcWYggYg'UbX'Uddfcj U'Vm'hY'GW'cc`cZ9Xi WUh]cb  
@YUfb]b[ 'UbX'HYUW]b[ '7ca a ]hY"Y"





@YWhi fYf

F YWca a YbXYX. ' ' #&\$'fl @DG'7F'8B'<8E'

k Y][ \hj]b[ ' :&\$i

Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

Gh XYbng`UfY`YI dYW`X`hc`di h`h`Y]f`bUa Yg`UbX`gh XYbhbi a VYfg`cb`Yj YfmdU[ Y`cZ`h`Y]f`Ugg][ ba Ybng"

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

- K cf\_`gi Va ]hYX`%\$`hc`%-`XUmg`UZhYf`h\Y`gh]di``UhYX`XYUX`]bY



- i bXYfghUbx'mci f'f][ \hg'UbX'fYgdcbg]V] ]hYg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[ ]Uf]ga ž'Wcdmf][ \hžI BGK 'Gh XYbh7cXY'cZ7cbXi W'Ubx'5Ww'dhUV'Y'I gY'cZ I BGK '⇒H'F Ygci fW'g'Dc`]Wn
- VY'Uk UfY'cZh'Y'ghUbxUfXg'cZVY\Uj ]ci f'YI dYW'X'cZYj Yfmcby' ]b'h'Y'I BGK 'Wca a i b]m
- `cWJh'gYfj ]Wg'UbX' ]bZcfa Uhcb'UVci hl BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZh'YgY'UfYUg'k ]`VY'ZJa ]]Uf'hc'mci ž'ch'Yfg'k ]`VY'byk "; U]b]b[ 'U'gc`X'i bXYfghUbx]b[ 'cZU`h'Y fY'UH'X'UgdYW'g'cZ9@G9'k ]`Y'd'mci 'a U\_Y'h'Y'a cghcZmci f'gh X]Yg'Uhl BGK "

[f\hd.#gi.VYWfi \]XYg" \]VfUfmi bkg "YXi "Ui #'\]gY#UVci h' \]gYt](#)







Zcfa Uhj Y UggYgga YbhXi f]b[ 'hY'Wci fgY'UbX'Zcfa U'Wci fgY'Yj U'i Uhcb'h\fcj [ \ 'A m9l dYf]YbW"

⇒ U[ Y'7 fYX]h

GmbYf[ ]Yg'j'b'Gci bX'&\$%\*

7F ⇒ CG

7F ⇒ CG'Dfcj ]XYf'7cXY.'\$\$\$-, ;