



7ci fgY`Cj Yfj ]Yk

GHJZ7cbHJW`8YHU]`g

7cbj Ybcfg

B Ua Y	9a U]`	5j U]UV]`]m	@cW]h]cb	D\cbY
>c\b`7Uff	^c\b"WUff4 i bgk "YXi "Ui	H\i fgXUmž ) .\$\$DA !* .\$\$DA UbX`VmUddc]b]a Ybh	A cfj Yb`6fck b ' *'	- ' , ) & ' %

@YW`i fYfg

B Ua Y	9a U]`	5j U]UV]`]m	@cW]h]cb	D\cbY
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# 5ggYgga Ybh

## 5ggYgga YbhHUg\_g`

5ggYgga YbhHUg_	K Y][ \h	8i Y'8UHŸ	Gh XYbh@YUfb]b[ Ci hŤa Yg'5ggYggYX
C b`]bY'8]gW gg]cb': cfi a`	) \$i	%+#/%#&\$&\$'\$(. \$\$'DA	%ž ž(
: ]bU`Dfc ŸW#9ggUmi	) \$i	&( #/%#&\$&\$'\$(. \$\$'DA	%ž&ž ž)

## 5ggYgga Ybh8YHU]`g

5ggYgga Ybh%`C b`]bY'8]gW gg]cb': cfi a

GHUfhXUHŸ. &&#&\$- #&\$&\$'\$(. \$\$'DA

@Yb[ h. %& \$\$

8YHU]`g.

C b`]bY'X]gW gg]cb'Zcfi a`-h]g]cb`]bY'Zcfi a`k ]`VY'U'fYdcg]hcfmicZ%&h]a Yg'U'k YY\_'HUg\_g'hc'dfYdUFY  
gh XYbhg'Zcf'YW#i fY'UbX'h hc]U`H\YgY'HUg\_g'k ]`]bW#i XY'k YY\_'mifYUX]b[ 'fYZYW]cbgž'fYUX]b[ 'ei ]nnYgž  
X]gW gg]cb'ei Yg]cbgž'UbX'ga U`dfc ŸW#i hc'dfYdUFY'gh XYbhg'Zcf'hY'Z]bU`UggYgga Ybh'5`HUg\_g'Yei U`m  
k Y][ \hYX'UbX'a Uf\_YX'i g]b[ 'U'ghUbXUFX]nYX'fi Vf]W'HcHU`h'fci [ \ci h'hY'hYfa`1`%ž) \$\$'k cfXg`

Gh XYbhg'dfcj ]YX'ZYXVUW\_`j ]U'fi Vf]Wa Uf\_g'UbX'Ťa a Ybhg'k \YfY'Uddfcdf]UHŸ'h'fci [ \Hi fb]h]b"

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

Gi Va ]hj ]U'A ccX'Y'YUW'k YY\_'cb'hY'XUmcZ'hY'cb!W]a di g'WUgg'VY'ZcfY'hY'ghUf'hcZ'WUggž'Ťa a YbW]b[  
cb'k YY\_'%": cf'a cfY'XYHU]gž'd'YUgY'fY'Zf'hc'hY`"5ggYgga Ybh-#ghfi W]cbg`"XcW a YbhdcghYX'cb'ci f  
Ťci fgY'A ccX'Y'g]hŸ

Hi fb]h]b'gYH]b[ . H\]g'Ugg][ ba Ybh]g'gi Va ]hYX'h'fci [ \Hi fb]h]b'UbX'gh XYbhg'Xc'bchgYY'Hi fb]h]b

5 HfYbXUbW F Yei JfYa YbHg

Gh XYbHg UfY gHfcb [ mYbWci fU[ YX hc UHfYbX U WUggYg UbX fYj ]Yk YWfi fY fYWcfX]b[ g"

7 ci fgY GWYXi Y

[J Yk WUgg Hja YHUV Y](#)

Hja YHUV Y

8 UHf	HmdY	7 cbHfYbh
K YY_% % (GYdHfYa VYf! % GYdHfYa VYf	@YWh fY	7ci fgY ]bfrcXi W]cb. Gfhi Whi fU`9I d`UbUh]cbg Zcf`GcWU` / `9bj ]fcb a YbHU`7 \ Ub[ Y
	C b`]bY`5W]j ]lm	H\ fci [ \ci hHfY`Hf a žgh XYbHg`k ]``\Uj Y`cb`]bY `YUfb]b[ žfYZYW]cbžUbX`[ fci dk cf_
K YY_&`&%GYdHfYa VYf! &) `GYdHfYa VYf	@YWh fY	8]gW fg]j Y#XYc`c[ ]WU`9I d`UbUh]cbg`Zcf`GcWU` / 9bj ]fcb a YbHU`7 \ Ub[ Y
	C b`]bY`5W]j ]lm	H\ fci [ \ci hHfY`Hf a žgh XYbHg`k ]``\Uj Y`cb`]bY `YUfb]b[ žfYZYW]cbžUbX`[ fci dk cf_
K YY_` .`&`GYdHfYa VYf! &`C WcVYf	@YWh fY	7`Ugg]Wdc`h]WU` ``]VYfU`]ga `UbX`Wc`bj Ybh]cbU` Uddf cUW`Yg`hc`UXj cWUWhUbX`dc`]Wm hfUbgZcfa Uh]cb
	C b`]bY`5W]j ]lm	H\ fci [ \ci hHfY`Hf a žgh XYbHg`k ]``\Uj Y`cb`]bY `YUfb]b[ žfYZYW]cbžUbX`[ fci dk cf_
K YY_(`.)`C WcVYf!`- C WcVYf	@YWh fY	7c`YW]j Y`UW]cb`UbX`]bhYfbU`fYg]ghUbwW
	C b`]bY`5W]j ]lm	H\ fci [ \ci hHfY`Hf a žgh XYbHg`k ]``\Uj Y`cb`]bY `YUfb]b[ žfYZYW]cbžUbX`[ fci dk cf_
K YY_)` .`%&`C WcVYf!`!`* C WcVYf	@YWh fY	Bcbj ]c`YbhifYg]ghUbwW`UbX`X]fYWhiUW]cb
	C b`]bY`5W]j ]lm	H\ fci [ \ci hHfY`Hf a žgh XYbHg`k ]``\Uj Y`cb`]bY `YUfb]b[ žfYZYW]cbžUbX`[ fci dk cf_
K YY_`*` .`%`C WcVYf!`& C WcVYf	F YUX]b[	H\]g`k ]``VY`Hf Y`fYUX]b[ `k YY_`Zcf`Hf Y`Hf a "
K YY_`+` .`%&`C WcVYf!`!` \$ C WcVYf	@YWh fY	9WcW`hi fU`7 \ Ub[ Y`UbX`8]gfi dh]cb
	C b`]bY`5W]j ]lm	H\ fci [ \ci hHfY`Hf a žgh XYbHg`k ]``\Uj Y`cb`]bY `YUfb]b[ žfYZYW]cbžUbX`[ fci dk cf_
K YY_`,` .`&`Bcj Ya VYf!`* Bcj Ya VYf	@YWh fY	I`hcd]Ub`9WcW`hi fU`Dfc`YWg
	C b`]bY`5W]j ]lm	H\ fci [ \ci hHfY`Hf a žgh XYbHg`k ]``\Uj Y`cb`]bY `YUfb]b[ žfYZYW]cbžUbX`[ fci dk cf_
K YY_`-` .`-`Bcj Ya VYf! %`Bcj Ya VYf	@YWh fY	J ]c`YbhX]fYWhiUW]cb`UbX`F Yg]ghUbwW
	C b`]bY`5W]j ]lm	H\ fci [ \ci hHfY`Hf a žgh XYbHg`k ]``\Uj Y`cb`]bY `YUfb]b[ žfYZYW]cbžUbX`[ fci dk cf_
K YY_`%\$` .`%&`Bcj Ya VYf! &\$`Bcj Ya VYf	@YWh fY	7cbWi`g]cb` `DUbY`. @]j ]b[ `Ug`Ub`Ybj ]fcb a YbHU` VXUb[ Y`a U_Yf
	C b`]bY`5W]j ]lm	H\ fci [ \ci hHfY`Hf a žgh XYbHg`k ]``\Uj Y`cb`]bY `YUfb]b[ žfYZYW]cbžUbX`[ fci dk cf_

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

Mci f`\_YmfYUX]b[ g`UbX`chYfa Uhf]U`g`k ]`VY`Uj U]UV`Y`j ]U`mci f`A ccX`Y`g]h`"

F YWca a YbXYX`F Ygci fWg

Mci `UFY`YI dYWX`hc`a U`\_Y`[ ccX`i gY`cZ`hY`fYUX]b[ g`dfcj ]XYX`Zc`f`hY`Wci fgYz`UbX`hc`fYUX`VYmc`bX`h`cgY`  
a Uhf]U`g`Zc`f`mci f`Ugg][ ba Ybhg`" :`bXYdYbXYbhfYgYUfW` ]g`YI dYVWX`"

7ci fgY`9j U`i Uh]cb`UbX`8Yj Y`cda Ybh

DUghYI dYf]YbW`UbX`ghi XYbhZYXVUW`\_cb`hY`I` B`G`K`\_`cb`]bY`gi fj Ymfc`a` m`9I`dYf]YbW`\_]bX]WUhg`hY`  
]a`dcft`UbW`\_cZ`gh`XYbhg`Xc]b[ `WcgY`UbX`WUfYZ`\_`fYUX]b[ `cZ`hY`k`YY`\_`mUgg][ bYX`fYUX]b[ g`z`cZYb[ U[ YX`  
gh`XYbhidUfh]WdUh]cb`]b`WUgg`X]gW`gg]cbg`z`UbX`cZ`gh`XYbh]bXYdYbXYbhfYgYUfW`"

Gi Va ]gg]cb`cZ5ggYgga YbhiHUg\_g

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

Ʒmci`YbWci bHYf`U`dfcV`Ya`k` \Yb`UH`Ya` dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`h`fci`[`\`Hi`fb]h]b`z`d`Y`UgY`  
HY`Yd`l`cb`Y`9I`HY`fb`U`Gi`ddc`fh`cb`-`,`,)`````%cf`Ya`Uj`h`Ya`icb`YI`HY`fb`U`HY`hgi`ddc`fh`4`i`bgk`"YXi`"Ui`""`Gi`ddc`fh`  
l`ci`fg`UfY`,`.\$\$Ua`-`-%\$.\$\$da`icb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`icb`k`YY`YbXg`fI`\*)`XUmg`U`mY`UfI`"Ʒmci`  
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`Xi`Y`hc`U`Zi`h`k`]h`Hi`fb]h]b`mci`a`Um`Udd`m`Zc`f`Ub`YI`HY`bg]cb`z`Vi`hmc`i`  
a`i`gh`fY`h]b`mci`f`h]W`Y`hbi`a`VY`f`Z`ca`9I`HY`fb`U`Gi`ddc`fh`f`U`cb[`k`]h`Ub`mci`h`Y`f`fY`Yj`Ub`h`Xc`W`a`Y`b`hg`L`hc`  
]b`Wi`XY`Ug`Yj`]X`Y`b`V`W`hc`gi`ddc`fh`mci`f`YI`HY`bg]cb`Udd`]W`h]cb`"Ʒmci`Ya`Uj`9I`HY`fb`U`Gi`ddc`fh`mci`k`j`  
Ui`hc`a`U`h]W`U`m`f`Y`W`j`Y`U`h]W`Y`hbi`a`VY`f`z`Vi`h]Z`mci`HY`Yd`l`cb`Y`mci`k`j`b`Y`Y`X`hc`gd`Y`W`Z`W`U`m`Ug`\_`Zc`f`cb`Y`"  
Hi`fb]h]b`U`gc`d`fcj`]X`Y`gi`d`X`U`h`Y`g`cb`h`Y]f`g`mg`h`Ya`g`h`U`h`g`cb`Hk`]h`Y`f`"

;`Yb`Y`f`U`m`z`Ugg`Y`gga`Yb`hi`U`g`\_`g`a`i`gh`V`Y`gi`Va`]h`Y`X`Y`Y`W`f`cb]W`U`m`j`]U`Y`]h`Y`f`Hi`fb]h]b`cf`U`A`cc`X`Y`  
Ugg][`ba`Yb`h`i`h`]b`g`h`U`b`V`W`g`k` \Y`f`Y`h`l`g`]g`b`ch`id`c`gg]V`Y`z`]h`k`j`V`Y`g`h`U`h`Y`X`cb`mci`f`W`ci`fg`Y`g`A`cc`X`Y`g`]h`k`]h`  
U`h`Y`fb`U`h]`Y`gi`Va`]gg]cb`X`Y`h]g`"

:`cf`]b`Z`c`fa`U`h]cb`cb`l`ck`hc`gi`Va`]h`Ugg][`ba`Yb`hg`cb`]b`Y`j`]U`A`cc`X`Y`.\`h`d`g`#`gh`XY`b`h`i`bgk`"YXi`"Ui`#`ck`!  
gi`Va`]h`Ugg][`ba`Yb`h`a`cc`X`Y`"

## 5 WUXYa ]W< cbYgmiUbX`D`U[ ]Uf]ga

D`U[ ]Uf]ga `]g`i`g]b[ `h`Y`k`c`f`X`g`c`f`]X`Y`U`g`c`Z`c`h`Y`f`g`i`U`b`X`d`f`Y`g`Y`b`h]b[ `h`Y`a` `U`g`m`c`i`f`c`k`b`" `#`W`U`b`h`U`\_`Y`a` `U`b`m`  
Z`c`f`a`g`Z`Z`c`a` `X`Y`]V`Y`f`U`h`Y` `W`X`Y`U`h]b[ `h`c` `U`W`W`Y`X`Y`b`h`U` `m`i`W`c`d`m]b[ `Z`c`a` `U`g`c`i`f`W` `k` ]h`c`i`h`U`W`\_`b`c`k` `Y`X[ `Y`a` `Y`b`h`

I`B`G`K` `[`f`c`i`d`g`d`U[ ]Uf]ga `]b`h`c` `h`Y` `Z`c` `c`k` ]b[ `W`U`h`Y`[`c`f`]Y`g.



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

[\hd. #gj V'YWf i \]XYg" \]VfUfm'i bgk "YXi "Ui #` \]gY#JVci h' \]gY](#)

