

EDST5114

Ⓜj Ygh[Uh]b['Ⓜgi Yg']b'7 i ff]W`i a `UbX'5ggYgga Ybh

GYa YghYf'C.bY`##`&\$%

7 ci fgY`Cj Yfj JYk

'GHUZZ'7 cbhUW`i8YHU]`g`

'7 cbj Ybcfg`

B Ua Y	9a Uj`	5j Uj`UV]`]m	@cWUhc`b	D\cbY
7 Ufc`HUmcf	YXi WUhc`b4 i bgk "YXi "Ui	H67	GYgg]cbU`	D`YUgY`i gY Ya Uj`Ug UVcj Y

GWXcc`7 cbhUW`i`bZcfa Uh]cb

GWXcc`cZ9Xi WUhc`b

5 fng`UbX`GcWU`G`WYbWg

@Yj Y`%ž>c\`b`; ccXgY`oi]`X]b[`fi &\$Ł

H. Ž`*`%f&Ł`-` ,)` %` ++

9. YXi WUhc`b4 i bgk "YXi "Ui

K . YXi WUhc`b"Ufngi bgk "YXi "Ui

5 hYbXUbW`F Yei]fYa Ybfg

5XX]hc`bU`GWXcc`cZ9Xi WUhc`b`UhYbXUbW`fYei]fYa Ybfg

h]g`YI dYWYX`hUhUbmghi XYbhYbfc`YX`]b`Ub`98GH`Wci fgY`k]h`hY`GWXcc`cZ9Xi WUhc`b`k]`a`U_Y`U`
 Wci a]ha`Ybhic`hY]f`YUfb]b[`UbX`UhYbX`U`WUggYg`]b`Z`k`YfY`WcbhYbh]g`XY`]j`YfYX`]b`U`ZUW`!h`!ZUW`
 a`cXY`YI`Wdh]b`Wfhu]b`WfW`a`ghUbW`g`k`YfY`UVgYbW`]g`Xi`Y`h`c`]`bYggž`a`]gUXj`Ybh`fY`cf`i`bZcfYgYYb`
 WfW`a`ghUbW`g`VYncbX`hY`ghi`XYbfg`Wcbfc`"5`a`]b]a`i`a`UhYbXUbW`fYei]fYa YbhicZ, \$i`]g`fYei]fYX`Zcf`
 YUW`Wci`fgY`"b`Wfhu]b`WfW`a`ghUbW`gž`U`ghi`XYbhia`Uma`]gg`i`d`h`&\$i`cZU`Wci`fgY`k`]h`ci`hZcfa`U`
 Udd`]WUhc`b`UbX`i`d`h`"i`cZU`Wci`fgY`k`]h`Zcfa`U`XcW`a`YbUhc`b`fgYbhj`]U`Ya`Uj`h`c`Wci`fgY`Wcbj`YbcfŁ`
 dfcj`]X]b[`U`h`Y`fYei]fYa Ybfg`XYHU]YX`VY`ck`UfY`a`Yh`Gh`XYbfg`bcha`YYh]b[`h`Y`UhYbXUbW`
 fYei]fYa Ybfg`ci`h]bYX`UVcj`Y`k`]`VY`Uk`UfYX`Ub`i`bgUhc`ZUW`c`fm: Uj`fl`: Ł`Zcf`hUhWci`fgY`fY`UfX`Ygg`cZ`
 hY]f`dYfZcfa`UbW`]b`hY`UggYgga`YbhUg`g`cf`chYf`fYei]fYa Ybfg`Zcf`hY`Wci`fgY"

: cfZ`fYf`]bZcfa`Uh]cb`cb`9Xi`WUhc`b`Wci`fgY`UhYbXUbW`fYei]fYa Ybfgž`d`YUgY`fYZf`h`h`Y`fYgdYW]j`Y`98GH`A`ccX`Y`a`cXi`YfgŁ`

5 WUXYa]W`bZcfa Uh]cb`

5`gh`XYbfg`a`i`gha`U_Y`Uj`U]X`UhY`a`dhUhU`UggYgga`Ybfg`]b`cfXYf`h`dUgg`h`Y`Wci`fgY"

: cfYggYbh]U`gh`XYbh]bZcfa`Uh]cb`fY`Uh]b[`h`c`fYei`Ygfg`Zcf`YI`hYbg]cb/fYj`JYk`cZa`Uf_g/cWW`dUh]cbU`YU`h`
 UbX`gUZf`m`YI`Ua`]bUh]cb`dfcW`Xi`fYg/gdYWU`Wcbg]XYfUh]cb`]b`h`Y`Yj`YbhicZ`]b`Ygg`cf`a`]gUXj`Ybh`fY`/
 ghi`XYbhYei`]m`UbX`X]gUV]`]m`UbX`chYf`YggYbh]U`UWUXYa`]W]bZcfa`Uh]cbž`
 gYY`[\fhdg.#k.k"Ufng"i`bgk`"YXi`"Ui`#W`ffYbhghi`XYbfg`#UWUXYa`\]W\]bZcfa`Uh\]cb#dfc`h`W`g!`\[i`\]XY`\]bYg#](#)

7 ci fgY'8YHJ]`g

7 fYX]h'Dc]bhg '* '

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

h'h]g`Vci fgYžm

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

GHUbXUfX	8YgW]dhcb
%"&"(@YUX`dfcW]ggYg`hc`Yj`U`i`UhY`hY`YZZW]j`YbYgg`cZ`hYUW]b[`dfc[fUa`g`i`g]b[`fYgYUfW]UbX`k`cf_d`UW]_bck`YX[Y`UVci`h`ck`gh`XYbhg`YUfb
%) ""	9j`U`i`UhY`YUfb]b[`UbX`hYUW]b[`dfc[fUa`g`i`g]b[`gh`XYbhUggYgga`YbhXUfUz`h`UhUfY`X]ZY`fYbh]UhY`X`Zc`f`h`Y`gdYW]Z]W`YUfb]b[`bYYXg`cZ`gh`XYbhg`UW`cgg`h`Y`Z`""`fUb[Y`cZ`UV]]]hYg"
*"&"&	DUfh]W]dUhY`]b`YUfb]b[`hc`i`dXUhY`_bck`YX[Y`UbX`dfUW]W`z`hUf[YhY`X`hc`dfcZYgg]cbU`bYYXg`UbX`gW]cc`UbX`#`cf`gmghY`a`df]cf]]hYg"
*"" ""	h]h]UhY`UbX`Yb[U[Y`]b`dfcZYgg]cbU`X]gW`gg]cbg`k`]h`Wc`YU[i`Yg]b`U`fUb[Y`cZ`Zc`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`z`UbX`h`Y`YXi`W]hcbU`ci`h`Wc`a`Yg`cZ`gh`XYbhg"

5ggYgga Ybh

5ggYgga YbhHUg_g

5ggYgga YbhHUg_g	K Y][\h	Gh XYbh@YUfb]b[Ci hWca Yg 5ggYggYX	5 #HG@DfcZYgg]cbU"; fUXi UHY HYUW]b['GHUbXUfXg'5ggYggYX	8i Y 8UHY
F YZYW]cb'dUdYf'	(\$i	%Z	%&"(Z%) "" Z* "&"&Z "" ""	&' # \$' #& \$% \$) . \$\$ DA
5bU`m]W]dUdYf UbX'dfYgYbhU]cb'	* \$i	%Z&Z	%&"(Z%) "" Z* "&"&Z "" ""	\$+ # \$ & # & \$% \$) . \$\$ DA

D`YUgY`fYZf`h`c`3gef`S`[S` B`da`W`ee`[a` S`^E`fS` V`Sd`Ve` X`ad`F`W`SUZ`W`e`c`b`h`Y`d`f`Y`j`]`c`i`g`d`U`[`Y`

5ggYgga Ybh8YHU]`g

5ggYgga Ybh% F YZYW]cb'dUdYf

GHUfhXUHY. Bch5dd`]WV`Y

8YHU]`g. `HUg_`%`!`K` f]hY`b`fYZYW]cb`cb`hY`UW]b[`Yi`dYf]YbW`]b`W`cbY`a`dcfUfmYXi`WU]cb`W`cbY`I`hg`" `@Yb[`h`.
&\$\$`\$`k`cfXg`E`i`U`]hU]j`Y`UbX`ei`Ubh]hU]j`Y`ZYXVUW`_`k`]h`]b`%\$`XUm]cZgi`Va`]gg]cb"

Hi`fb]h]b`g`YH]b[. `H\]g`Ugg][`ba`Ybh]g`gi`Va`]hY`X`h`fci`[`\`Hi`fb]h]b`UbX`gh`XYbtg`Xc`bchgY`Y`Hi`fb]h]b`
g]a`]Uf]mifYdcf]g"

5ggYgga Ybh&. 5bU`m]W]dUdYf`UbX`dfYgYbhU]cb

GHUfhXUHY. Bch5dd`]WV`Y

8YHU]`g. `HUg_`&`!`K` f]hY`b`UbU`mg]g`UbX`dfYgYbhU]cb`cZU`g][`b]Z]W]bh]g]gi`Y`fY`UHY`X`h`c`W`ff]W`i`a`Z`UbX`#`f`
UggYgga`Ybh`Z`UbX`#`f`fYdcf]b[`h`U]h]g`cZ]bhY`fYgh`c`mci`@Yb[`h`. `(`\$\$`\$`k`cfXg`fk`f]hY`b`dUdYf]h]a`Y.`) `a`]bi`hYg`
fdYgYbhU]cb]E`i`U`]hU]j`Y`UbX`ei`Ubh]hU]j`Y`ZYXVUW`_`k`]h`]b`%\$`XUm]cZgi`Va`]gg]cb"

Hi`fb]h]b`g`YH]b[. `H\]g`Ugg][`ba`Ybh]g`gi`Va`]hY`X`h`fci`[`\`Hi`fb]h]b`UbX`gh`XYbtg`Xc`bchgY`Y`Hi`fb]h]b`
g]a`]Uf]mifYdcf]g"

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 Ybhg"

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

≠mci`YbWci bhYf`U`dfcV`Ya`k`Yb`U`h`Ya`dh]b[`hc`gi Va]hmcif`Ugg][ba Ybh`h`fci [\`Hi`fb]h]b`z`d`YUgY
h`Y`d`cb`Y`9I`h`fb`U`Gi`ddcfh`cb`-`'`,`)`''`'`%cf`Ya`U]`h`Ya`cb`[YI`h`fb`U`h`h`gi`ddcfh`i`bgk`"YXi`"Ui`"Gi`ddcfh](#)

f`G][b]Z]W]b]h]m]U]Z]Y]W]h]m]i] f`d`Y`f`Z`c`f`a` U`b`W` `]b`U`g`g`Y`g`g`U`V`Y`k` c`f`_`z`V`Y` `]h`U`Z`c`f`a` U`Y`b`X`!`c`Z`g`Y`a` Y`g`h`f`Y`I` U`a`]b`U`h`c`b`z`U`
W`U`g`g`h`Y`g`h`z`U`U`V`c`f`U`h`c`f`m`h`Y`g`h`z`U`g`Y`a`]b`U`f`d`f`Y`g`Y`b`h`U`h`c`b`c`f`U`b`m`c`h`Y`f`Z`c`f`a` `c`Z`U`g`g`Y`g`g`a` Y`b`h`

:`c`f`Z` f`h`Y`f`X`Y`h`U`]`g`]`b`f`Y`U`h`c`b`h`c`G`d`Y`W`U`7`c`b`g`]`X`Y`f`U`h`c`b`]`b`W`i` X`]`b`[`K` \`Y`b`h`c`5`d`d`m`z`<`c`k`h`c`5`d`d`m`U`b`X`
"G`i`d`d`c`f`h`]`b`[`8`c`W`a` Y`b`h`U`h`c`b`"d`Y`U`g`Y`f`Y`Z`f`h`c`h`Y`G`d`Y`W`U`7`c`b`g`]`X`Y`f`U`h`c`b`k`Y`V`g`h`Y`.

[\`h`d`g`#`g`h`X`Y`b`h`i`b`g`k`"Y`X`i`"U`i`#`g`d`Y`W`U`!`W`c`b`g`\]`X`Y`f`U`h`c`b`](#)

5 WUXYa]W<c bYghmUbX 'D`U[]Uf]ga

D`U[]Uf]ga]g'i g]b['hY`k cfXg'cf]XYUg'cZchYfg'UbX'dfYgYbh]b['hYa`Ug'mci f'ck b" #WUb`hU_Y'a Ubm Zcfa gž Zca`XY]VYfUHy`WXYU]b['hc`UWV]XYbU`mWc`dm]b[Zca`U`gci fW`k]hCi hUW_bck`YX[Ya`Ybh'

I BGK`[fci dg'd`U[]Uf]ga`]bhc`hY`Zc`ck]b[`WUHy`[cf]Yg.

7cdm]b[.`i g]b['hY`gUa`Y`cf`j`Yfmg]a`]Uf`k`cfXg`hc`hY`cf][]bU`hY`hcf`]XYU`k`]hCi hUW_bck`YX[]b['hY`gci fW`cf`i`g]b[`ei`chU]cb`a`Uf`g`"H`]g`U`gc`Udd`]Yg`hc`]a`U[Ygž`Ufh`UbX`XYg][`b`dfc`YWgž`Ug`k`Y`"Ug`dfYgYbU]h]cbg`k`YfY`gca`YcbY`dfYgYbh]g`Ubc`h`Y`f`g`]XYUg`cf`k`cfXg`k`]hCi hWYX]h'

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7c`i`g]cb.`k`cf_]b[`k`]h`chYfg`Vi`hdUgg]b[`cZ`hY`k`cf`_`Ug`U`dYfgcb`g`]bX]j`]Xi`U`k`cf`_"7c`i`g]cb`U`gc`]bWi`XYg`dfcj`]X]b[`mci`f`k`cf`_`hc`Ubc`h`Yf`gh`XYbhVYZc`fY`hY`Xi`Y`XUHy`ž`cf`Zc`f`hY`di`fdcgY`cZ`h`Ya`d`U[]Uf]g]b[`Uh`Ubmi]ja`Yž`dUm]b[`Ubc`h`Yf`dYfgcb`hc`dYfZcfa`Ub`UWUXYa`]W]Ug`ž`ghU`]b[`cf`UW`ei`]f]b[`Ubc`h`Yf`dYfgcb`g`UWUXYa`]Wk`cf`_`UbX`Wc`dm]b[`]ž`c`ZYf]b[`hc`Wc`a`d`YHy`Ubc`h`Yf`dYfgcb`g`k`cf`_`cf`gYY_]b[`dUma`YbhZc`f`Wc`a`d`Y]b[`UWUXYa`]Wk`cf`_"

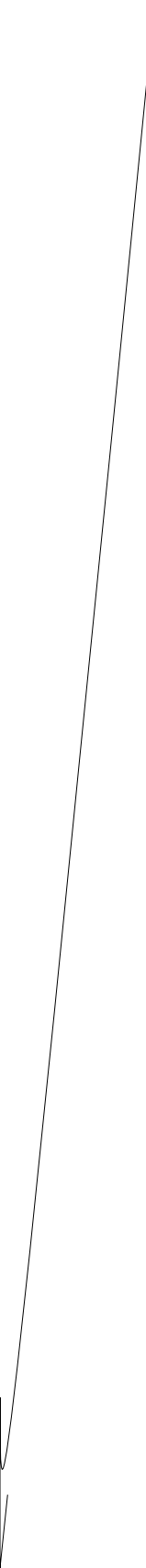
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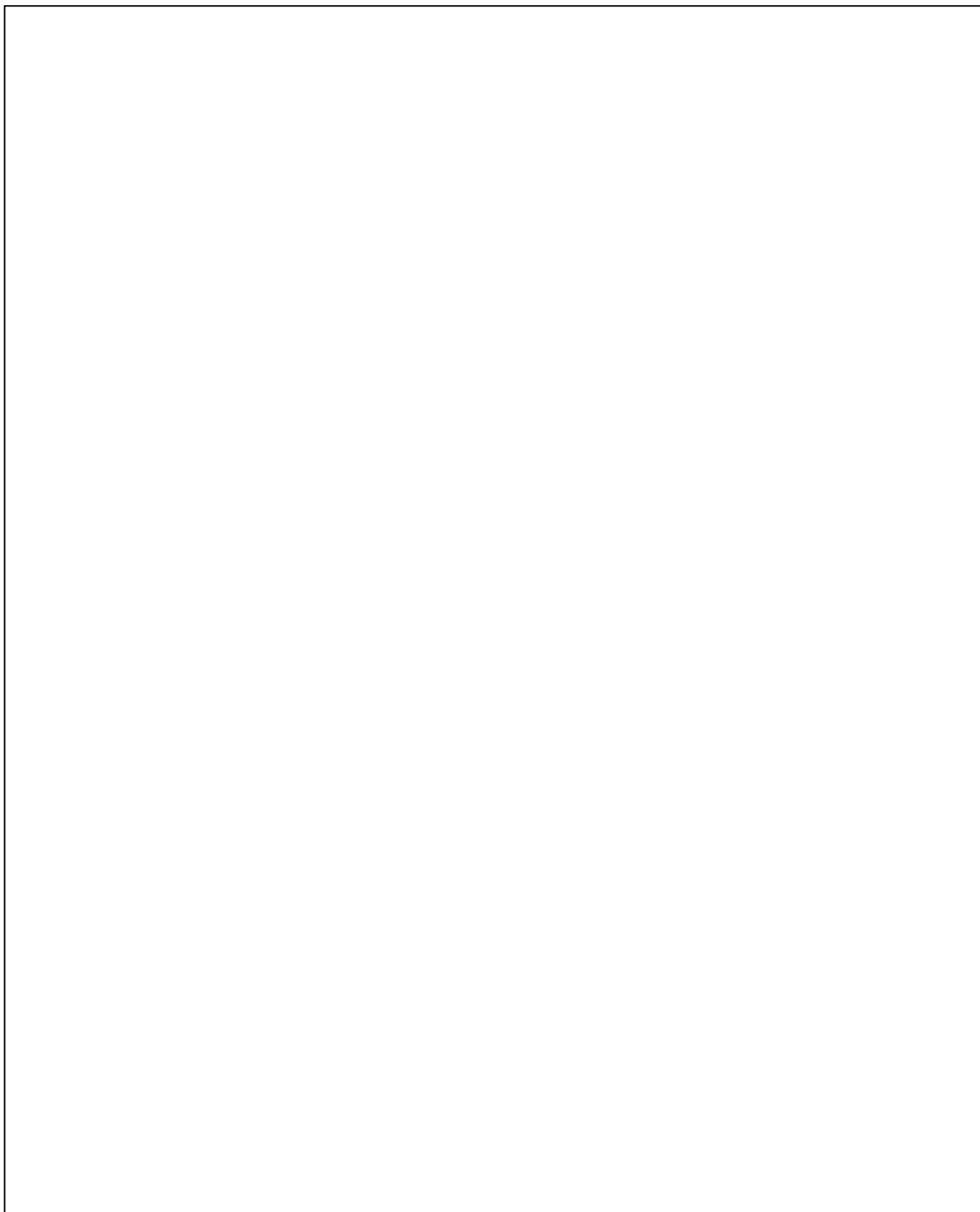
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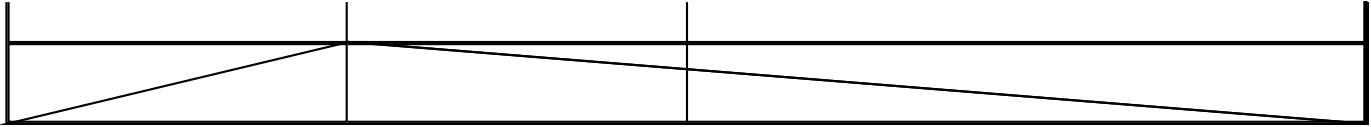
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- DUFUd`fUg]b[žgi`a`a`Uf]g]b[žYggUmk`f]h]b[`UbX`h]a`Y`a`UbU[Ya`Ybh`
-

- VYhYf'a UbU[Y'mci f'hja Y
- i bXYfgHUbX'mci f'f][\hg'UbX'fYgdcbg]V]hYg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'W'dmf][\hž' BGK 'Gh XYbh7cXY'cZ7cbXi WñUbX'5WwdfUV'Y'l gY'cZ
I BGK '⇒H'F Ygci fW'g'Dc`]Wñ







F Ygci fWg

DfYgW]VYX`F Ygci fWg`

D`YUgY`gYY`A ccX`Y

F YWca a YbXYX`F Ygci fWg

D`YUgY`gYY`A ccX`Y

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