



## ARTS3065

GWYYb '9a ch]cbg. '5 ZYWiUbX '7 ]bYa U

HYfa 'Cby''##'&\$&\$

7 ci fgY`Cj Yfj ]Yk

`GHUZZ`7 cbhUW`i8YHU]`g`

`7 cbj Ybcfg`

B Ua Y	9a U]`	5j U]`UV]`]m	@cWU]hcb	D\cbY
8f`>cX]`6fcc_g	^Vfcc_g4 i bgk "YXi "Ui	K YXbYgXUmg`%#d%& UbX`c`h`Yf`h`a Yg`Vm Uddc]bha Ybh	&' %< `F cVYfh K YVghYf 6i ]X]b[	- ' , , ) * ' )

GWXcc`7 cbhUW`i`bZcfa U]hcb

Fcca "`%&Z`Yj Y`` `F cVYfhK YVghYf`6i ]X]b[

D\cbY.`f\$&L`- ' , ) ` ( , ) \*

9a U]: [gUa 4 i bgk "YXi "Ui](#)

K YVg]hY: [\hfdg.#gUa "Ufng"i bgk "YXi "Ui](#)

H\Y`GWXcc`cZ`h`Y`5fng`UbX`A`YX]U`k`ci`X`\_]`Y`h`c`F`YgdYWZ`m5W\_bck`YX[`Y`h`Y`HfUX]hcbU`7`i`g`h`X]Ubgz`h`Y`6YXY[`U`f`P`Ybg]b[`h`c`b`W`l`a`d`i`g`L`Z`;`UX][`U`f`7`]m`UbX`5`f`h`i`8`Yg][`b`7`Ua`d`i`g`Y`g`U`b`X`h`Y`B`[`i`b`b`U`k`U`d`Y`c`d`Y`f`B`i`g`h`f`U`]U`b`8`Y`Z`b`W`V`:`c`f`W`5`W`U`X`Y`a`m]b`7`U`b`V`Y`f`f`U`L`c`Z`h`Y`U`b`X`g`k`Y`f`Y`Y`U`W`W`l`a`d`i`g`c`Z`I`B`G`K`i`j`g`c`W`U`h`Y`X`"

7ci fgY'8YHJ`g

7fYX]hDc]bHg '\*`

Gi a a UfmicZ`h`Y'7ci fgY

: cf'a i W`cZ]hg` \]g`hcfmž`W]bYa U` \Ug`VYYb`Vch` `cj`YX`UbX`fYj`]YX`Zc`f`]hg`UV`]hmi`c`a`cj`Y`Ui`X]YbW`g`UbX`  
a`U`\_Y`i`g`“ZY`”`“`h`]g`W`i`fgYž`mci`k`]`YI`d`c`f`Y`ci`f`W`a`d`Y`i`]bj`Yg`h`a`Yb`hg`]b`W]bYa`U`g`UZZY`W]j`Y`W`d`U`W]h`Y`g`  
A`cj`]b[`U`W`c`gg`j`Uf`]ci`g`[`Yb`f`Y`g`UbX`Zc`fa`g`—`Zc`f`YI`Ua`d`Y`g`]Yb`h`Z`a`a`Y`c`X`f`Ua`Ug`ž`cb[`Zc`fa`h`Y`j`]g`cb`  
X`f`Ua`U`ž`W`c`gg`j`Y`f`Z`a`g`ž`X`c`W`a`Yb`h`U`f`m`ž`ei`Y`Y`f`W]bYa`U`UbX`]b`X`Y`d`Y`b`X`Y`b`h`W]bYa`U`—`mci`k`]`YI`Ua`]b`Y`g`ca`Y`  
c`Z`h`Y`k`U`mg`]b`k` \]W`U`ZZY`W]h`UbX`Ya`c`h`cb`U`f`Y`gi`a`a`cb`Y`X`UbX`Y`b`U`W`h`X`]b`g`W`Y`Y`b`a`Y`X`]U`H`f`ci`[` \`U`W`c`g`Y`  
gh`X`m`c`Z`\_Y`m`W`c`b`W`d`hg`UbX`X`Y`V`U`h`g`]b`h`Y`X`]g`W`d`]b`Y`UbX`g`W`Y`Y`b`h`i`hg`ž`mci`k`]`[`U]b`Ub`i`b`X`Y`f`h`UbX`]b[`c`Z`  
\`ck`UbX`k` \`mci`Y`g`h`cb`g`U`V`ci`hg`W`Y`Y`b`f`]b[`E`Ya`c`h`cb`g`W`c`b`h`bi`Y`h`c`V`Y`g`c`]a`d`c`f`h`Ub`h`c`X`U`m`

7ci fgY`@YUfb]b[ `Ci hW`a`Yg

%`7`f`h`W]`m`Y`b`[`U`[`Y`k`]`h`X`Y`V`U`h`g`UbX`]b`h`Y`Y`W`h`U`d`U`f`U`X`[`a`g`]b`Z`a`g`h`i`X`]Y`g`  
&`@`c`W`U`h`ž`c`f`[`U`b`]g`Y`ž`UbX`U`gg`Y`gg`]b`Zc`fa`U`h`cb`f`Y`Y`j`Ub`h`c`h`Y`g`h`i`X`m`c`Z`g`W`Y`Y`b`a`Y`X`]U`  
'`" `7`ca`a`i`b`]W`U`h`h`Y`ci`h`W`a`Y`g`c`Z`mci`f`f`Y`g`Y`U`f`W`]b`V`c`h`g`W`c`U`f`m`UbX`b`c`b`!`g`d`Y`W]U`]g`h`Ub`[`i`U`[`Y`  
(`" `8`Ya`c`b`g`h`U`h`W`]h`W`g`\_`]`g`]b`d`f`c`V`Ya`g`c`j`]b[`UbX`g`Y`Z`X`]f`Y`W`h`X`Y`U`f`b`]b[`"

HYUW`X`]b[ `G`h`f`U`h`[ `]Y`g`

G`W`U`Z`c`X`Y`X`Y`U`f`b`]b[ `]g`W`b`h`f`U`h`c`h`Y`h`Y`U`W`X`]b[ `g`h`f`U`h`[ `]Y`g`X`Y`d`c`m`Y`X`]b`h`]g`W`c`i`fg`Y`" `5`g`U`W`U`d`g`h`c`b`Y`W`c`i`fg`Y`  
5`F`H`G`\$`\*)`d`f`c`f`]h`g`Y`g`Zc`fa`U`h`]`Y`ei`Y`g`h`cb`]b[`ž`cb`[`c`]b[`X`]U`c`[`i`Y`UbX`d`Y`Y`f`h`c`!`d`Y`Y`f`Y`U`f`b`]b[`UbX`h`Y`U`W`X`]b[`ž`  
Y`U`W`X`c`Z`k` \]W`d`U`m`U`\_Y`m`d`U`f`h`]b`h`Y`k`Y`Y`\_`m`g`Ya`]b`U`f`g`" `7`ci`fg`Y`a`U`h`f`]U`g`UbX`W`U`gg`X`]g`W`gg`]c`b`g`U`f`Y`  
X`Y`g`[`b`Y`X`h`c`W`U`Y`b`[`Y`g`h`i`X`Y`b`hg`h`f`ci`[` \`X`Y`Y`d`Y`f`Y`U`f`b`]b[`UbX`X`]g`W`gg`]c`b`UbX`h`c`Y`b`U`V`Y`g`h`i`X`Y`b`hg`h`c`a`cj`Y`  
V`Y`m`c`b`X`h`Y`]f`W`f`f`Y`b`hg`\_`]`UbX`\_`b`c`k`Y`X`[`Y`Y`j`Y`g`" `h`]g`W`c`i`fg`Y`U`gg`Y`g`g`a`Y`b`h`i`U`g`\_`g`UbX`h`Y`U`W`X`]b[ `g`h`f`U`h`[ `]Y`g`  
U`f`Y`X`Y`Y`d`m`]b`h`f`h`k`]b`Y`X`ž`k`]h`g`h`i`X`Y`b`hg` \`U`j`]b[ `h`Y`c`d`d`c`f`h`b`]h`m`i`c`X`Y`j`Y`c`d`UbX`k`c`f`\_`g` \`c`d`h`Y`]f`]X`Y`U`g`UbX`  
d`f`c`Y`W`g`h`f`ci`[` \`g`W`U`Z`c`X`Y`X`Zc`fa`U`h`]`Y`UbX`g`i`a`a`U`h`]`Y`U`gg`Y`g`g`a`Y`b`h`i`U`g`\_`g`"

# 5ggYgga Ybh

8YHU]YX]bZcfa U]cb'UVci hYUWX 'UggYgga YbhiUg\_]g'Uj U]UV'Y'cb'hY'Wci fgY'A ccX'Y"

## 5ggYgga YbhiUg\_]g'

5ggYgga YbhiUg_]g'	K Y][ \h	8i Y'8UH'	Gh XYbh@YUfb]b[ Ci hWca Yg'5ggYggYX
K f]h]b[ 'YI YfW]gYg'	&)	]b'WUgg'UW]j ]mk YY_' ' h'fcf]U'g	' ž(
F YgYUfW' DcfhZ`]c'	' )	&- # \$ #&\$&\$ '%%) ) 'DA	%ž&
F YgYUfW' Dfc'YW'i	( \$	&, # \$( #&\$&\$ '%%\$\$ 'DA	%ž&ž(

## 5ggYgga Ybh8YHU]`g

5ggYgga Ybh% 'K f]h]b[ 'YI YfW]gYg

GHUfhXUH'.'

@Yb[ h. '&l ' ' ) \$'k cfXg

8YHU]`g. 'G\cfh]b!WUgg'k f]h]b[ 'hUg\_]g'Wcbg]gh]b[ 'cZtk c' ' ) \$'k cfX'fYZYW]cbg'cb'Wci fgY'a UHf]U'g'Ug gdYW]ZYX'K f]h]b'ZYXVUW'cb'k f]h]b[ 'hUg\_]U'bi a Yf]W]'[ fUXY'j ]U'Wci fgY '@A G"

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

H\Y'ZfghUggYgga YbhiUg\_]g'k c'g\cfhk f]h]b'd]YW'gž'Wca d'YH'X' ]b'WUggž'VUgYX'cb'Wci fgY'a UHf]U'g' ffYUX]b[ g'UbX'gWYYb]b[ gk'k YY\_g'% ( "'8YHU]YX]bZcfa U]cb'UVci h'hY' hUg\_]bWi X]b[ 'gUa d'Y'ei Ygh]cbg UbX'a Uf\_]b[ 'W]h]f]Užk ]'VY'Uj U]UV'Y'cb'A ccX'Y"

Gi Va ]gg]cb'bcH'g. 7 ca d'YH'X' ]b!WUgg

Hi fb]h]b'gYH]b[ . H\]g' ]g'bchU'Hi fb]h]b'Ugg][ ba Ybh

5ggYgga Ybh&. 'F YgYUfW' DcfhZ`]c'

GHUfhXUH'.'

@Yb[ h. . , !%\$'dU[ Yg

8YHU]`g. . !%\$'dU[ Y'fYgYUfW' dcfhZ`]c' Wcbg]gh]b[ 'cZW]h]W]'fYZYW]cbg'cb'fYUX]b[ g'UbX'gWYYb]b[ gž UbbchUH'X'V]V]c[ fUd\mž' dcf'YW'bcH'gž'fYgYUfW' d'Ub'UbX'XfUž'ei Ygh]cb'Zc'f'hY'fYgYUfW' dcf'YW'

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

GY'Y' A ccX'Y'Zc'f'XYHU]YX]bZcfa U]cb'UVci h'hY'F YgYUfW' DcfhZ`]c"

Hi fb]h]b'gYH]b[ . H\]g'Ugg][ ba Ybh]g'gi Va ]h'X'h'fci [ \ 'Hi fb]h]b'UbX'gh XYb]g'Xc'bcHgYY'Hi fb]h]b

g]a ]Uf]mfYdcftg"

5ggYgga Ybh' . 'F YgYUfWk 'Dfc YWk

GHUfhXUHY . '

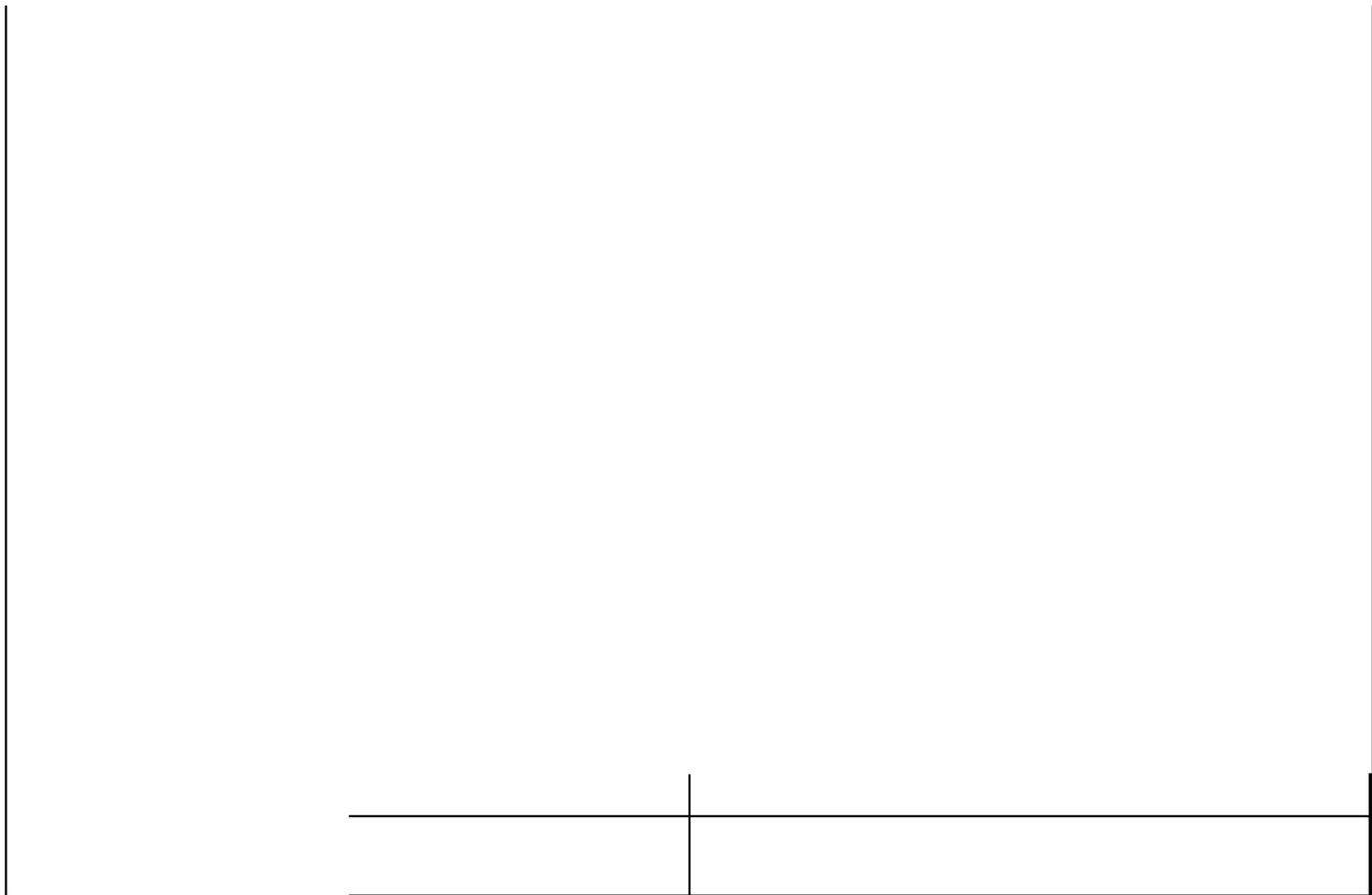
@Yb[ h\ . '&\$\$\$'k cfXgžd'i g'V]V'c[ fUd\m

8YHU]`g. '&\$\$\$'k cfX'YggUmf'a ]I YX'a YX]U'k cf\_'k ]h' UWW'a dUbm]b[ 'k f]HYb'W'a a YbUfmcZ) \$\$'k cfXg  
hUhYI d'cfYg'U'ei Ygh]cbžW'cbWdhcf'XYVUH'YI Ua ]bYX' ]b'hY'W'ei fgY"K f]HYb'ZYXVUW'UbX'bi a Yf]WU'  
[ fUXY'j ]U'W'ei fgY '@A GH\]g' ]g'hY'Z]bU'UggYgga YbhUg\_'Zcf'hY'W'ei fgY"

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

H\]g' ]g'mci f'Z]bU'UggYgga YbhUg\_'Zcf'h]g'W'ei fgY"'Mci f'fYUfWk 'dfc YWk ]''YI d'cfY'U'ei Ygh]cbžW'cbWdhcf  
XYVUH'YI Ua ]bYX' ]b'hY'W'ei fgY'h'fci [ \ 'hY'W'cgY'UbU'mg]g'cZU'Z'a 'cf'hY'Yj ]g]cb'hYI h'fY'Yj Ubh'hc'hY





## F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

9ggYbh]U`fYUX]b[ g

H\YfY`]g`bc`hYI hVcc\_`Zcf`h]g`Wci fgY`!!`hY`YggYbh]U`fYUX]b[ g`Zcf`YUWX`k`YY`\_`k`]`VY`Uj`U]UV`Y`cb`A`ccX`Y`  
h`fci` [ \ `@Y[`Ubtc`"H\YgY`fYUX]b[ g`UfY`YggYbh]U`Zcf`hY`gi`WY`ggZ` `Wca`d`Yh]cb`cZ`hY`Wci`fgY`UbX`mci`UfY`  
YI`dY`WYX`tc`\_`YYd`i`d`tc`XU`h`k`]h`U`fYUX]b[ g"

9ggYbh]U`a`YX]U`hYI`hg`fZ]`a`g`UbX`hY`Yj`]g]cb`gYf]Ygk`k`]`VY`gWY`YbYX`]b`WUgg`Xi`f]b[ `hY`  
gWY`YXi`YX`gWY`Yb]b[ #gh`X]c`h]a`Y`g`ch`

## F YWca a YbXYX`F Ygci fWg

F YWca a YbXYX`gi`dd`Ya`YbhUfm]fYUX]b[ gZ]V]V]c[ fUd\]Yg`UbX`ch`Yf`fYgYUfW`a`U`h]f]U`g`k`]`VY`Uj`U]UV`Y`  
h`fci` [ \ `hY`Wci`fgY`A`ccX`Y"

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

Gh`XYbhZYXVUW\_]g[`U`hYfYX`cb`h]g`Wci`fgY`YUWX`mYUf`Vch`h`fci` [ \ `Zcfa`U`a`YUbg`gi`W`Ug`  
A`m9I`dYf]YbW`UbX`h`fci` [ \ `fY[`i`Uf`WUgg`X]gW`gg]cbg`"Hcd]Mg`h`Uhgh`XYbhg`VY`Yb`dUf]W`Ufmi]bhY`fYghYX`]b`  
YI`d`cf]b[`Z]bW`X]b[`gWY`Yb`a`Y`cXfUa`U`UbX`XYVUhYg`Ufci`bX`gWY`Yb`j`]c`YbW`UbX`hY`"bYk`YI`hYa`]ga`""]b`  
W]bYa`U`Uj`Y`VY`Yb`[`j`Yb`U`\_`Ymid`UW`UbX`fc`Y`]b`h]g`Wci`fgY"

Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

Hi fb]hb`Gi Va ]gg]cb

Ʒmci`YbWci`bhYf`U`dfcV`Ya`k`Yb`U`H`Ya`dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybh`h`fci`[`\`Hi`fb]hb`z`d`YUgY`  
H`Y`d`l`cb`Y`9I`H`f`b`U`Gi`ddcfh`cb`-`,`)``%`cf`Ya`U`H`Ya`cb`YI`H`f`b`U`H`f`gi`ddcfh`4`i`bgk`"YXi`"Ui`"Gi`ddcfh`  
`l`ci`fg`UfY`,`.\$\$Ua`-`%\$.\$\$da`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`cb`k`YY`YbXg`f`l`\*)`XUmg`U`m`Y`Uf`l`"Ʒmci`  
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybh`Xi`Y`hc`U`Z`U`h`k`]h`Hi`fb]hb`mci`a`Um`Udd`m`Z`f`Ub`YI`H`f`bg]cb`z`Vi`hmc`i`  
a`i`gh`f`Y`h]b`mci`f`h]W`Y`h`bi`a`VY`f`Z`ca`9I`H`f`b`U`Gi`ddcfh`f`U`cb[`k`]h`Ub`m`c`h`Y`f`f`Y`j`Ub`h`X`c`W`a`Y`b`h`g`l`hc`  
]b`W`i`X`Y`U`g`Y`j`]X`Y`b`W`hc`gi`ddcfh`mci`f`YI`H`f`bg]cb`Udd`]W`h]cb"Ʒmci`Ya`U`9I`H`f`b`U`Gi`ddcfh`mci`k`]`  
Ui`h`ca`U`h]W`m`f`Y`W`j`Y`U`h]W`Y`h`bi`a`VY`f`z`Vi`h]Z`mci`H`Y`d`l`cb`Y`mci`k`]`b`Y`Y`X`hc`gd`Y`W`Z`W`m`U`g`\_`Z`f`cb`Y`  
Hi`fb]hb`U`gc`d`fc`j`]X`Y`g`i`d`X`U`H`Y`g`i`cb`h`Y`j`f`g`m`g`h`Ya`g`h`U`h`g`i`cb`H`k`]h`Y`f`"

;`Yb`Y`f`U`m`z`Ugg`Y`gga`Y`bh`h`U`g`\_`g`a`i`gh`V`Y`gi`Va`]h`Y`X`Y`Y`W`f`cb]W`m`j`]U`Y`]h`Y`f`Hi`fb]hb`cf`U`A`cc`X`Y`  
Ugg][`ba`Y`b`h`h`b`]b`g`h`U`b`W`g`k`Y`f`Y`h`l`g`]g`b`c`h`i`d`c`g`g]V`Y`z`]h`k`]`V`Y`g`h`U`H`X`i`cb`mci`f`W`ci`fg`Y`g`A`cc`X`Y`g`]h`k`]h`  
U`h`f`b`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`Y`b`h`g`i`cb`]b`Y`j`]U`A`cc`X`Y`.\`h`td`g`#`g`h`X`Y`b`h`i`bgk`"YXi`"Ui`#`ack`!  
gi`Va`]h`Ugg][`ba`Y`b`h`a`cc`X`Y`"

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

D`U[ ]Uf]ga `]g`i g]b[ `h`Y`k cfXg`cf]XYUg`cZchYfg`UbX`dfYgYbh]b[ `h`Ya `Ug`mci f`ck b" `h`WUb`hU`Y`a Ubm  
Zcfa gž`Zca `XY`]VYfUh`W`YU]b[ `h`UW]XYbhU`miW`dm]b[ `Zca `U`gci fW`k ]h`ci hUW\_bck `YX[ Ya Ybh`

I BGK `[ fci dg`d`U[ ]Uf]ga `]b`h`Y`Zc`ck ]b[ `W]hY[ cf]Yg.

7cdm]b[ .`i g]b[ `h`Y`gUa Y`cf`j Yfmg]a ]Uf`k cfXg`h`h`Y`cf][ ]bU`hI hcf]XYU`k ]h`ci hUW\_bck `YX[ ]b[ `h`Y

- 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'5W'WdhUV'Y'I gY'cZ I BGK '⇒H'F Ygci f'Wg'Dc`]Wm
- VY'Uk UfY'cZ'Y'ghUbxUfXg'cZVY\Uj ]ci f'YI dY'W'X'cZYj Yfmcby`]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'cZ'Y'gY'UfY'Ug'k ]`VY'ZJa ]]Uf'hc'mci ž'c'h'Y'fg'k ]`VY'bYk " "; U]b]b[ 'U'gc`]X'i bXYfghUbx]b[ 'cZU`'h'Y fY'UH'X'UgdY'W'g'cZ9@-G9'k ]`'Y'd'mci 'a U\_Y'h'Y'a cghcZmci f'gh X]Yg'Uhl BGK ""

[\hhd.##ji V'Y'W'i \]X'Yg" \]VfUfm'i bgk "YXi "Ui #' \]gY#\]Vci h' \]gY](#)

## 5 WUXYa ]W]bZcfa Uh]cb`

: cf`YggYbh]U`ghi XYbh]bZcfa Uh]cb`fY`Uh]b[ `hc.

- fYei Yghg`Zcf`YI h`bg]cb/
- `Uh`gi Va ]gg]cbg`[ i ]XY`]bYg/
- fYj ]Yk `cZa Uf\_g/
- I B GK `< YU`h`UbX`GUZY`midc`]WYg/
- YI Ua ]bUh]cb`dfcVWXi fYg/
- gdYW]U`Vc]bg]XYfUh]cb`]b`h`Y`Yj Ybhcz]`bYgg`cf`a ]gUXj Ybh`fY/
- gh`XYbhYei ]m]UbX`X]gUV`]m/
- UbX`ch`Yf`YggYbh]U`UWUXYa ]W]bZcfa Uh]cb`gYY