



# ARTS2570

ⓂHYfa YX]UHŸ`GdUb]g\`5

HYfa `H\ŸŸ`##`&\$&\$

7ci fgY`Cj Yfj ]Yk

GHJZZ`7cbHJW`8YHJ]`g

7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]m	@cW]h]cb	D\cbY
8f`B UHJ]`U`C fh]n 7YVYf]c	b"cf]h]nVWVYf]c4 i bgk "YXi "Ui	VmUddc]b]h]a Ybh]cb`m	A cfj Yb`6fck b Yj Y`&cZZ]W &&,&	fZ`*%L`\$& - ' , )`%\$*(

GWXcc``7cbHJW`bZcfa U]h]cb

GWXcc``cZ<i a Ub]h]Yg`UbX`@Ub[ i U[ Yg

7ci fgY'8YHJ]`g

7fYX]hDc]bHg`\*`

Gi a a UfmcZh\Y'7ci fgY

K ]h'a cfY'h\Ub" ' 'a ]`cb'GdUb]g\gdYU\_Yfg]b'h\Y'I G5'U`cbYž< ]gdUb]WW`h'fY']g:]bWfYUg]b[ `m

: fca 'h\Y'; i ]XY`bYg'cb'@YUfb]b[ 'h\Uh-ǂZcfa 'HYUW\]b[ 'gh' XYbhg'Wc'a a i b]WUhw' ]bZcfa Uh'cbž]XYUg'UbX  
Uf[ i a Ybhg'Vch'cfU`miUbX' ]b'k f]h]b[ "'H\Ymi[ Uh\Yf'UbX'dfcW'gg']bZcfa Uh'cb'Zc'a 'Uj Uf]YmicZdUdYfž  
Ui X]cj ]gi U`UbX'Y'YWfcb]Wgci fW'g"'H\Ymi gY' #I'YZYW]j Y'mVch'Ug'U'a YUbg'cZWc'a a i b]WUhw' ]bX'Ug'Ub  
U]X'hc'YUfb]b[ 'Ug'k Y`Ug'XYa cbghfUhw'gca Y'UV'] ]miUg'Ub' ]bXYdYbXYbh'YUfbYf"

## 5ggYgga Ybh

H\]g`jg`\*`l`c7`W`i`fgYžYei`j`j`U`Ybhlc`%)`\$`\ci`fg`cZghi`Xnžmci`g\ci`X`a`U`\_`Y`gi`fY`lc`U`cWUHY`hja`Y`Zc`f`h`jg`W`i`fgY`"

Gh`XYbhg`UfY`YI`dYW`YX`lc`W`ca`d`YH`h`Y`fYW`c`f`YX`Y`W`hi`fYgžk` \]W`W`cbUj]bYX`W`ca`di`gc`fm`UbX`[`f`U`X`Y`X`k`c`f`\_`ž`UbX`U`H`Y`b`X`h`h`c`f`]U`g`d`f`Y`d`U`f`Y`X`"D`Y`U`g`Y`W`ca`d`Y`H`h`Y`k`Y`Y`\_`m`U`W`h`j`j`Y`g`V`Y`Z`c`f`Y`Y`W`hi`f`Y`Ub`X`h`Y`U`W`h`j`h`Y`g`V`Y`Z`c`f`Y`h`h`c`f`]U`g`f`G`Y`Y`A`c`c`X`Y`Z`c`f`Z`f`h`Y`f`X`Y`h`j`]g`Ł`"

## 5ggYgga YbhHUg\_g`

5ggYgga YbhHUg_	K`Y`[`\`h`	8`i`Y`8`U`H`Y`	Gh`XYbh`@`Y`U`f`b`]b`[`C`i`h`W`ca`Y`g`5`gg`Y`gg`Y`X`
9!Dcfhžc`]c`	&\$!	k`Y`Y`_`m`U`W`h`j`j`h`Y`g`h`c`V`Y`W`ca`d`Y`H`X`V`Y`Z`c`f`Y`Y`W`hi`f`Y`g`c`f`h`h`c`f`]U`g`	%ž&ž{
C`f`U`	&\$!	K`Y`Y`_`m`U`b`X`K`Y`Y`_%`\$`	&ž`ž`}
&`!`7`U`gg`H`Y`g`h`g`	*`\$!	K`Y`Y`_`)`ž`-`Ub`X`_%`\$`	%ž&ž`ž`{

## 5ggYgga Ybh8YHJ]`g`

5ggYgga Ybh%`9!Dcfhžc`]c`

GhUfhXUHY`Bch5dd`]WUV`Y`

@Yb[`h`.j`Uf]Yg`

8YHJ]`g`.

Dcfhžc`]c`c`Z`k`Y`Y`\_`m`c`b`]b`Y`U`W`h`j`j`h`Y`g`ž`&\$!`&`)`a`]b`g`d`Y`f`k`Y`Y`\_`"

:`Y`Y`X`V`U`W`\_`d`f`c`j`]X`Y`X`c`b`]b`Y`

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

Dcfhžc`]c`c`Z`k`Y`Y`\_`m`c`b`]b`Y`U`W`h`j`j`h`Y`g`ž`&\$!`&`)`a`]b`g`d`Y`f`k`Y`Y`\_`"J`U`f`]Y`g`"7`c`a`d`i`gc`f`m`k`c`f`\_`X`c`b`Y`]b`m`c`i`f`8`]`]`h`U`6`C`C`?`J`]`h`U`a`]b`U`6`%`

@UHY`gi`Va`]gg]c`b`g`Ub`X`Y`I`H`Y`b`g]c`b`g`U`f`Y`b`c`h`U`j`U`]U`V`Y`Z`c`f`9!Dcfhžc`]c`U`W`h`j`j`h`Y`g`"

Hi`fb`]h`b`g`Y`H`h`]b`[`.H\]g`jg`b`c`h`U`Hi`fb`]h`b`U`gg`]`ba`Y`bh`

5ggYgga Ybh&.`C`f`U`

GhUfhXUHY`.k`Y`Y`\_`"

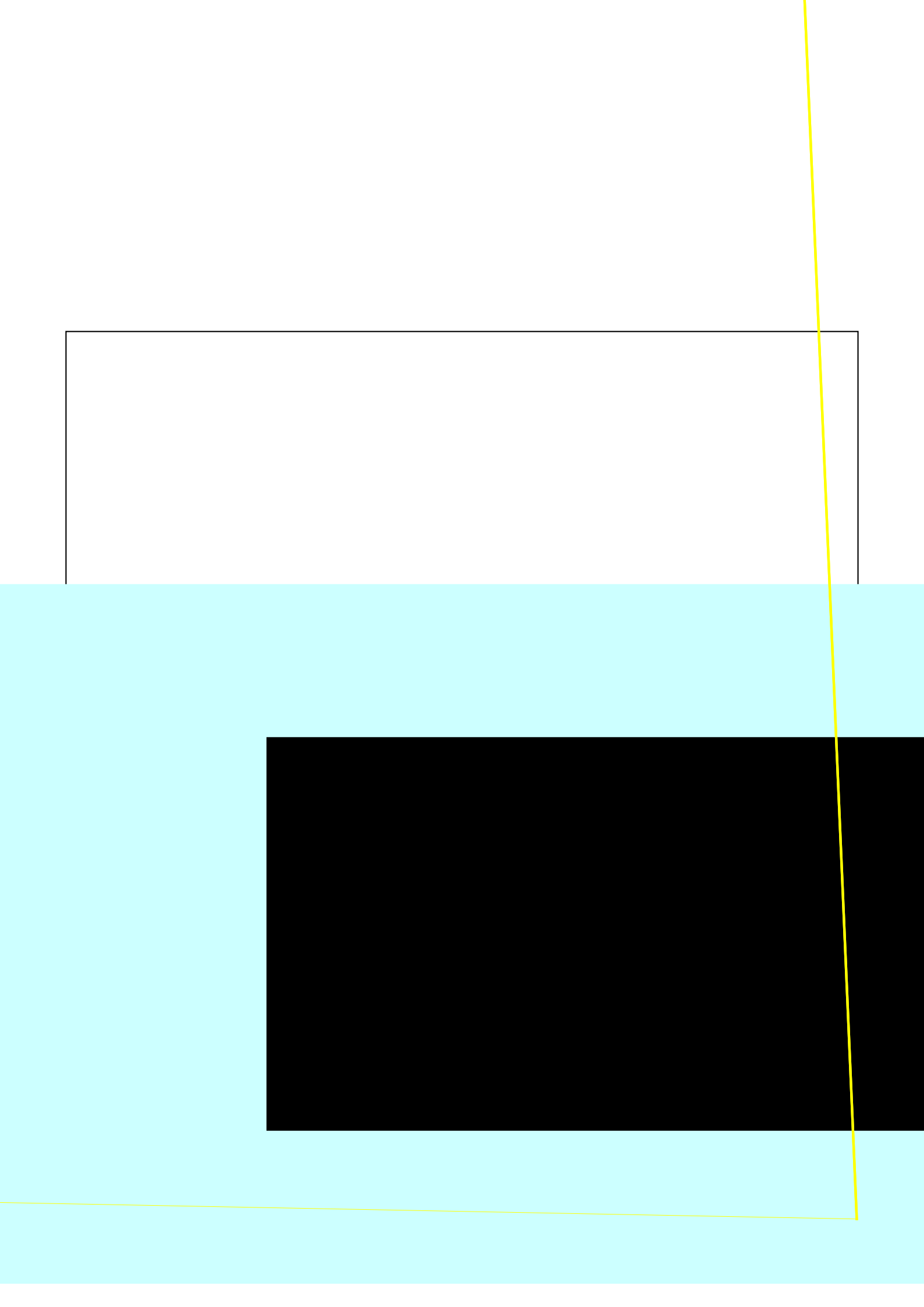
@Yb[ h. j Uf]Yg

8YhU]`g.

C b[ c]b[ `UbX`ZbU`f%\$!%) `a ]bi hYgŁ`VmUddc]bha Ybñ

C fU`ZYXVUW`UbX`a Uf\_g`dfcj ]XYX"

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



<p>K YY_%. %* 'Bcj Ya VYf! &amp;\$ 'Bcj Ya VYf</p>	<p>Hi hcf]U'</p>	<p>@YWh fY 'XYX]WUHX'hc '[ YbYfU`'fyj ]g]cb'cZWci fgY WcbhYbh]b 'dfYdUfUhc]b'Zcf'k f]hYb 'YI Ua "'H9GH Xi f]b[ 'hi hcf]U'"5WYgg'A ccX'Y'Zcf'Z fh\Yf ]bZcfa Uh]cb 'UbX'hc 'dfYdUfY'Zcf'hY'hYgh</p> <p>HYgh&amp;''</p> <p>DUfh%; fUa a Uf'f% ) i t</p> <p>CF5@9L5A 'Xi f]b[ 'hY'h hcf]U'</p>
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F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

9LD97H98`H9LHG. J #H5A #B5`6%`

Mci f`9DC F H: C @C žk YY\_`mk cf\_žUbX`fYgci fWg`UFY`]b`mci f`hYI hUbX`YI YfW]gY`Vcc\_gž`hYfYžcfY`mci  
bYYX`hYgY`Vcc\_g`cb`XUmcbY`k YY\_`%"

Gi Va ]gg]cb`cZ5ggYgga YbhiHUg\_g

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

≠mci`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`Ug`Y`  
HY`Yd`cb`Y`9I`HY`fb`U`Gi`ddc`fh`cb`-`,`)`"``"``%`cf`Ya`U]`h`Ya`i`cb`YI`HY`fb`U`HY`hgi`ddc`fh`4`i`bgk`"YXi`"Ui`""Gi`ddc`fh`  
`l`ci`fg`UfY`,`.\$\$Ua`-`-%\$.\$\$da`i`cb`k`YY`XUmg`U`bX`-`.\$\$Ua`-`).\$\$da`i`cb`k`YY`YbXg`f`l`\*)`XUmg`U`m`Y`Uf`l`"≠mci`  
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`Xi`Y`hc`U`Z`Ji`h`k`]h`Hi`fb]h]b`mci`i`a`Um`Udd`m`Z`f`U`b`YI`HY`bg]cb`z`Vi`hmc`i`  
a`i`gh`f`Y`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`U`b`m`c`h`Y`f`f`Y`Y`U`b`h`X`c`W`a`Y`b`h`g`k`h`c`  
]b`Wi`XY`U`g`Y`j`]X`Y`b`W`h`c`gi`ddc`fh`mci`f`YI`HY`bg]cb`Udd`]W`h]cb`"≠mci`Ya`U]`9I`HY`fb`U`Gi`ddc`fh`mci`k`]`  
Ui`h`ca`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`cb`Y`mci`k`]`b`Y`Y`X`h`c`g`d`Y`W`Z]W`U`m`U`g`\_`Z`f`c`b`Y`"  
Hi`fb]h]b`U`gc`d`fc`j`]X`Y`g`i`d`X`U`h`Y`g`c`b`h`Y`]f`g`m`g`h`Y`a`i`g`h`U`h`g`c`b`H`k`]h`Y`f`"

;`Yb`Y`f`U`m`z`U`gg`Y`g`g`a`i`gh`V`Y`gi`Va`]h`Y`X`Y`Y`W`f`c`b]W`U`m`j`]U`Y`]h`Y`f`Hi`fb]h]b`c`f`U`A`cc`X`Y`  
U`gg][`ba`Y`b`h`i`h`]b`g`h`U`b`W`g`k` \Y`f`Y`h`l`g`]g`b`c`h`d`c`g`g]V`Y`z`]h`k`]`V`Y`g`h`U`h`X`c`b`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`"

:`c`f`]b`Z`c`fa`U`h]c`b`c`b`l`c`k`hc`gi`Va`]h]Ugg][`ba`Y`b`h`g`c`b`]b`Y`j`]U`A`cc`X`Y`.`h`h`d`g`#`g`h`X`Y`b`h`i`bgk`"YXi`"Ui`#`c`k`!  
gi`Va`]h]Ugg][`ba`Y`b`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'Wc'dmf][ \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`]b'h'Y'I BGK 'Wc'a a i b]m
- `cWJh'gYfj ]W'g'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 ""

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

## 5 WUXYa ]WbZcfa Uh]cb

: cfYggYbh]U`gh XYbh]bZcfa Uh]cb fY`Uh]b[ `rc.

- fYei Yghg`Zcf`YI H`bg]cb/
- `UhY`gi Va ]gg]cbg`[ i ]XY`]bYg/
- fYj ]Yk `cZa Uf\_g/
- I BGK `<YU`h`UbX`GUZYmidc`]WYg/
- YI Ua ]bUh]cb`dfcW`Xi fYg/
- gdYW]U`W`bg]XYfUh]cb`]b`hY`Yj YbhcZ]`bYgg`cf`a ]gUXj Ybh fY/
- gh XYbhYei ]mUbX`X]gUV`]m/
- UbX`c`hYf`YggYbh]U`UWUXYa ]W]bZcfa Uh]cbz`gYY

[\ftdg.#k k k "Uftg"i bgk "YXi "Ui #W ffYbh\]gh XYbh\]UWUXYa \]W\]bZcfa Uh\]cb#dfch`W`g`\[ i \]XY`\]bYg#](#)

⇒ U[ Y`7fYX]h

dYI Y`g"W`a

7F ⇒ CG

7F ⇒ CG`Dfcj ]XYf`7cXY.`\$\$\$- ;

5W\_bck `YX[ Ya YbhcZ7ci bhfm

K Y`UW\_bck `YX[ Y`hY`6YXY[ U`dYcd`Y`k `c`UfY`hY`fUX]h]cbU`W`gh`X]Ubg`cZ`hY`UbXg`cb`k `]W`I BGK  
? Ybg]b[ `rcb`W`a`di`g`]g`c`W]hYX"