



# ARTS3661

5Xj UbWX' c fYUb'6

HYfa 'H\ fYY'##'&\$&\$





k \]W\ 'mci 'UfY 'dfcj ]XYX 'ja a YX]UH\ 'ZYXVUW\_"

H\Y 'Wci fgY 'i gYg 'U 'fUb [ Y 'cZHYUW\ ]b [ 'ghfUH\ [ ]Ygž ]bW\ X]b [ 'hUg\_!cf]YbHYX 'UW\j ]hYg 'b 'dU]fg 'UbX '[ fci dgž  
UbX 'WUgg 'UbX 'ga U'' [ fci d 'X]gW gg]cbg" "b 'h\]g 'dfcW\ggžmci 'k ]''VY 'UV 'Y 'hc 'Wca a i b]WUH\ 'Zcf' ]bZcfa U\]cbž  
]XYUg 'UbX 'Uf [ i a Yb\g 'Vc\ 'cfU''mUbX ' ]b 'k f]h]b [ " 'Mci 'k ]'' [ UH\Yf 'UbX 'cf [ Ub]gY ' ]bZcfa U\]cb 'Zca 'H\Y  
HYI H\cc\_ 'UbX 'U'k ]XY 'fUb [ Y 'cZ 'k f]hYb 'a UHYf]U'gžUi X]c!j ]gi U''fB J 8žJ ]XYcžYH\ 'UbX 'Y 'YWfcb]Wf]bHYfbYhž  
YH\ 'gci fW\g "H\]g 'dfcW\gg'k ]''U'gc 'YbUV 'Y 'mci 'hc 'i gY 'H'f? cfYUb 'k cfX 'dfcW\ggcfž? cfYUb 'k YV'' ]b\_gž  
YH\ 'Y ZYW\j Y 'miUg 'U 'a YUbg 'cZVca a i b]WUH\]cb 'UbX 'Ug 'Ub 'U]X 'hc 'Ub [ i U [ Y''YUfb]b [ 'Ug 'k Y''Ug ' ]bXYdYbXYbh  
'YUfb]b [ "



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@Yb[ h\.' '\$'ei Ygh]cbg`YUW

8YhU]`g.



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K YY_%.%* Bcj Ya VYf! &\$'Bcj Ya VYf	@YWh fY	F Yj ]g]cb'fl b]hg', !%ž, !' ž-!%/ '-!(Ł"J cWUV'ei ]n', cb'l b]h-!( "
	5ggYgga Ybh	K f]hYb' hYgh&



F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

- McbgY]?cfYUb`6cc\_(`f(!&ŁVmiMcbgY]!`b]j`Yfg]m?cfYUb`@Ub[ i U[ Y`bgh]h hřžMcbgY]!`b]j`Yfg]m  
DfYggž&\$\$,`cf`hY`U`ghYX]h]cb"

F YWca a YbXYX`F Ygci fWg

Gi Va ]gg]cb`cZ5ggYgga YbhiHUg\_g

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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`Ug`Y`  
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`\_X`Umg`U`bX`-`.`.\$`\$Ua`-`,`)`.`.\$`\$`da`icb`k`YY`\_Y`bX`g`f`l`\*)`X`Umg`U`m`Y`U`f`l`"Ʒmci`  
UfY`i`b`UV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`Xi`Y`hc`U`Z`Ji`h`k`]h`Hi`fb]h]b`mci`a`Um`Udd`m`Z`c`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`Yj`U`b`h`X`c`W`a`Y`b`h`g`L`hc`  
]b`Wi`XY`U`g`Y`j`]X`Y`b`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`U`g`\_`Z`c`f`cb`Y`"  
Hi`fb]h]b`U`gc`d`fc`j`]X`Y`g`i`d`X`U`h`Y`g`cb`h`Y`]f`g`m`g`h`Ya`g`h`U`h`g`cb`H`k`]h`Y`f`"

;`Yb`Y`f`U`m`z`U`gg`Y`gga`Y`b`h`i`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`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`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`"

:`c`f`]b`Z`c`fa`U`h]cb`cb`l`ck`hc`gi`Va`]h`U`gg][`ba`Y`b`h`i`cb`]b`Y`j`]U`A`cc`X`Y`.\`h`d`g`#`g`h`X`Y`b`h`i`bgk`"YXi`"Ui`#`ck`!  
gi`Va`]h`U`gg][`ba`Y`b`h`i`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'5W'W'dhUV'Y'I gY'cZ I BGK '⇒H'F'Ygci f'W'g'Dc`]W'h
- VY'Uk UfY'cZ'Y'ghUbxUfXg'cZVY\Uj ]ci f'YI dY'W'X'cZYj Yfmcby']b'h'Y'I BGK 'W'a a i b]m
- 'cW'W'h'gYfj ]W'g'UbX' ]bZ'fa U]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'U'Y'X'UgdY'W'g'cZ9@-G9'k ]''\Y'd'mci 'a U\_Y'h'Y'a cghcZmci f'gh X]Yg'Uhl BGK ""

[\h'hd.##ji V'Y'W'i \]X'Y'g"\]VfUfm'i bgk "Y'X'i "U'i #' \]gY#\]V'ci h' \]gY](#)

5 WUXYa ]W=Zcfa Uh]cb