



ARTS3570

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7ci fgY`Cj Yfj]Yk

`GHUZZ7cbhUW`i8YHU]`g`

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H\]g`Wci fgY'dfcj]XYg'UXj UbVWX`Yj Y`]bghfi W]cb`]b`GdUb]g\`Ub[i U[Y`ghi XmZca 'U`Wca a i b]W]hj Y`UbX
hUg_!VUgYX'UddfcUW\''Mci `k]`XYj Y`cd'mci f`]ghYb]b['UbX'gdYU_]b['g_]`g`h`fci [\`U`bi a VYf'cZX]ZYfYbh
UW]j]hYgžUg`k Y`Ug`mci f`fYUX]b['UbX`k f]h]b['g_]`g`]b`GdUb]g\`J cWUVi `UfmUbX[fUa a Uh]W]`ghfi W]h fYg
UfY'dfYgYbhX`]b`hY`WcbhYI hcZW`h fU`mfY`Yj Ubh]ggi Yg"5i X]c!j]gi U`k YV`VUgYX'a UHf]U`]g`i gYX`Ug`Ub
]bfcXi W]cb`hc`j cWUVi `Ufmž[fUa a Uf'ghfi W]h fYg`UbX`W`h fU`mfY`Yj Ubh]cd]Wg`"Hcd]Wg`a Um]bW] XY

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D`YUgY'gYY`A ccX`Y`Zc`f`XYHJ`YX`]bZcfa UH}cb

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Hi fb]hjb`gYHjb[.`H\]g`jg`bchU`Hi fb]hjb`Ugg][ba Ybh

5ggYgga Ybh(. `5i X]cj]gi U`UW]j]h]Yg

GHUfhXUHY. `Bch5dd`]WV`Y

@Yb[h. `j Uf]Yg

8YHU]`g. `DfY`WUgg`Ui X]c!j]gi U`UW]j]h]Yg`fbY`ZUWY`ggE`tc`VY`W`a d`YH`X`k`YY`_`n!`@Yb[h. `UbX`fUg_g`j`Ufm`fei]nnYg`z`Z`c`f`i`a`g`z`f`Y`UX]b[`W`a`d`f`Y`\`Y`bg]cb`z`U`i`X]cg`z`j`]X`Y`cg`"E`6`Y`k`Y`Y`b`%`\$`U`b`X`&`\$`a`]bi`h`Y`g`tc`W`a`d`Y`H``]b`m`c`i`f`i`c`k`b`h`a`Y`X`Y`j`Y`c`d]b[``]g`h`b]b[`g_]`g`z`k`f]h`b[`c`f`f`Y`UX]b[" :`Y`Y`X`V`U`W`_`c`b`]b`Y`z`]b`X`j`]X`i`U`W`a`a`Y`b`h`g`z`U`b`X`]b!`W`U`g`g`X]g`W`gg]cb"

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

H\YmUfY`k`YY`_`m`i`c`b`]b`Y`U`W]j]h]Yg`tc`W`a`d`Y`H`V`Y`Z`c`f`Y`Y`W`h`f`Y`g`f`%`\$`i`E`U`b`X`(`5`i`X]j]gi U`fUg_g`f`&`\$`i`E`tc`W`a`d`Y`H`]b`k`YY`_`%`z` `z` `U`b`X`+"

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5 hYbXUbW F Yei]fYa Ybhg

Gh XYbhg UfY gfhcb [mYbWci fU [YX hc UhhYbX U WUggYg UbX fYj]Yk YWfi fY fYWcfX]b [g"

7 ci fgY GWXYXi Y

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Hja YhUV Y

8 UhY	HmdY	7 cbhYbh
K YY_% % : YVfi Ufm! &(: YVfi Ufm	Hcd]W	DfYgYbhUW]i b XY W fgc Y]bfcXi W]i b U W]bY" fA]fU A ccX Y dUfU]bZcfa UW]i b XYHU UXU XY Ug UW]j]XUXYg XY YghU gYa UbU F YW YfXU dUfh]W]dUf Yb Y Zcfc YghU gYa UbU UbhYg XY]f U U YWfi fU 9ghU gYa UbU bc \ Umhi hc fEUg 5i X]cj]gi U %Wca d YHU UbhYg XY U dfi I]a U hi hc fEU .
K YY_&.&) : YVfi Ufm! " A UfW	Hcd]W	fA]fU A ccX Y dUfU]bZcfa UW]i b XYHU UXU XY Ug UW]j]XUXYg XY YghU gYa UbU mdUfU Wca d YHUf dfYdUfUW]i b YWfi fU Hi hc fEU. '9 @UVYf]bhc XY": Ui bc mYgWbU XY U gYa UbU 7ca YbhJa cg j cW]Vi Uf]cZ YI dfYg]cbYgZ W hi fU" .
K YY_" : (A UfW ! "%\$ A UfW	Hcd]W	fA]fU A ccX Y dUfU]bZcfa UW]i b XYHU UXU XY Ug UW]j]XUXYg XY YghU gYa UbU mdUfU Wca d YHUf dfYdUfUW]i b YWfi fU Hi hc fEU. '9 @UVYf]bhc XY": Ui bc YgWbU" hi hc fEU" 7ca YbhJa cg j cW]Vi Uf]cZ YI dfYg]cbYgZ W hi fU" 5i X]cj]gi U & fiWca d YHU UbhYg XY U dfi I]a U hi hc fEU .

		<p>9ghU'gYa UbU'Ya d]YnUb'Ug'gYg]cbYg'XY'cb`]bY WcUVX]b["8YVYg Wca d'YHf') 'gYg]cbYg'dUfU dUgUf'YghY Wca dcbYbhY'XY'W fgc</p>
K YY_(. :%%A UfW ! :%+ A UfW	Hcd]W	<p>7 ca d'YH'UW]j]XUXYg'UbH'g'XY''U''YWh fU''fA]fU A ccX'Y'dUfU']bZ:fa UW]i b'XYH''UXU'XY''Ug UW]j]XUXYg'XY'YghU'gYa UbU'k</p> <p>Hi hcfEU.</p> <p>9''UVYf]bhc'XY'': Ui bc'YgWbU'(' .Wca YbhJa cg j cWUvi 'Uf]cZ'YI dfYg]cbYgZ'W 'h fU"</p>
K YY_(. :% 'A UfW ! :&(A UfW	Hcd]W	<p>7 ca d'YH'UW]j]XUXYg'UbH'g'XY''U''YWh fU''fA]fU A ccX'Y'dUfU']bZ:fa UW]i b'XYH''UXU'XY''Ug UW]j]XUXYg'XY'YghU'gYa UbU'k</p> <p>Hi hcfEU.</p> <p>E i]n'%Yb'h hcfEU</p> <p>9''UVYf]bhc'XY'': Ui bc'YgWbU'XY''U'gYa UbU Wca YbhJa cg'j cWUvi 'Uf]cZ'YI dfYg]cbYgZ'W 'h fU"</p> <p>5i X]cj]gi U'' Wca d'YH'U'UbH'g'XY''U'df' I]a U hi hcfEU</p>
K YY_*. :&) 'A UfW ! :% A UfW	Hcd]W	<p>7 ca d'YH'UW]j]XUXYg'UbH'g'XY''U''YWh fU''fA]fU A ccX'Y'dUfU']bZ:fa UW]i b'XYH''UXU'XY''Ug UW]j]XUXYg'XY'YghU'gYa UbU'k</p> <p>Hi hcfEU.</p> <p>9''UVYf]bhc'XY'': Ui bc'YgWbU'XY''U'gYa UbU'''' 7 ca YbhJa cg'j cWUvi 'Uf]cZ'YI dfYg]cbYgZ'W 'h fU"</p>
K YY_+. :%5df]'!' +5df]'	Hcd]W	<p>7 ca d'YH'UW]j]XUXYg'UbH'g'XY''U''YWh fU''fA]fU A ccX'Y'dUfU']bZ:fa UW]i b'XYH''UXU'XY''Ug UW]j]XUXYg'XY'YghU'gYa UbU'k</p> <p>Hi hcfEU.</p> <ul style="list-style-type: none"> • 9gWbU',

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K YY_ - . % '5df]'!'&% 5df]`	Hcd]W	@YWh fU" : f]XUm]g`U`di V]WŁc`]XUnžHi hcf]U`g`\Uj Y`VYYb fYYgWXYxi `YX`Zcf`K YY_`%K YX`%`.\$\$`!`%`.\$\$`UbX K YX`%`.\$\$`""%+.\$\$.
K YY_ %\$. &&'5df]'!'& 5df]`	Hcd]W	A cbXUmUbX`H\i fgXUmUfY`di V]WŁc`]XUmž`YWh fY

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Cb`]bY`7cUW]b[.`di fWUg]b[`UbX`fY[]ghYf]b[`h\fc [\`@]b[i Ua YYh]b[`k YVg]hY

%`; c`hc` [\`hdg`##k`k`"\]b\[i Ua YYh\]b\["Wca`#Y\[\]ghfc"d\`d](#)

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gY`YWhi`mci`f`dUma`Ybhcd]cb.

`"7`lccgY`mci`f`gYgg]cb`Z`ca`h`Y`Uj`U]UV`Y`gYgg]cb`h`a`Yg`"Mci`f`gYgg]cb`k`]`VY`cb`h`Y`gUa`Y`XUm]UbX`
Uh`h`Y`gUa`Y`h`a`Y`i`b`Ygg`mci`W`Ub[`Y`]h`

(`"5`h`h`Y`YbX`c`Z`h`Y`fY[]ghfUh]cb`d`fc`W`ggž`mci`k`]`f`Y`W`]Y`U`W`b`Z]fa`Uh]cb`Ya`U`]`k`]h`mci`f`W`U`W]b[`
gYgg]cb`U[`YbXU`"Mci`W`b`g`Uj`Y`h`Y`U[`YbXU`Ug`U`Xc`W`a`Ybhcb`mci`f`XYg`_`h`c`d`"D`Y`UgY`W`X`Y`W`_`U`"h`Y`

]bZ`c`c[`]b`mci`f`Gh`XYbh]DcftU`h`c`c`.[`c`hc` [\`hdg`##k`k`"\]b\[i Ua YYh\]b\["Wca`](#)

UbX`W]W`_`cb`"Gh`XYbh`h`c`c[`]b`"f`5`bmi]ggi`Yž`h`Y`gh`XYbh]g\ci`X`W`b`h`U`W`h` [gi`ddcfh4`"\]b\[i Ua YYh\]b\["Wca`](#)

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

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≠mci`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]h]b`z`d`YUgY`
HY`Yd`cbY`9I`HYfbU`Gi`ddcfhcb`-`,`),`'`,`'`,`%cf`Ya`U]`h`Ya`cb`YI`HYfbU`HY`hgi`ddcfh4`i`bgk`"YXi`"Ui`"Gi`ddcfh`
`ci`fg`UfY`,`.\$\$Ua`-`%\$.\$\$da`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`,`).\$\$da`cb`k`YY`YbXg`fI`*)`XUmg`U`mY`UfL`≠mci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`YbhXi`Y`hc`U`ZU`hik`]h`Hi`fb]h]b`mci`a`Um`Udd`mi`Zc`f`Ub`YI`HYbg]cb`z`Vi`hmc`i`
a`i`ghfY`hU]b`mci`f`h]W`Yhbi`a`VYf`Zca`9I`HYfbU`Gi`ddcfhfU`cb[`k`]h`Ubmc`h`Yf`fY`Yj`UbhXcW`a`Yb`hg`L`hc`
]bWi`XY`Ug`Yj`]XYbW`hc`gi`ddcfhmc`i`f`YI`HYbg]cb`Udd`]W]h]cb`≠mci`Ya`U]`9I`HYfbU`Gi`ddcfhmc`i`k`]`

5 WUXYa]W<c bYghmiUbX`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" `hWUb`hU`Y`a Ubm
Zcfa gZ`Zca `XY`]VYfUHY`WXYU]b[`hc`UWV]XYbhU`mW`dm]b[`Zca `U`gci fW`k]h`ci hUW_bck`YX[Ya Ybh`

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

7 cdm]b[.`i g]b[`hY`gUa Y`cf`j Yfmg]a]Uf`k cfXg`hc`hY`cf][]bU`hYI hcf]XYU`k]h`ci 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[YgZ`UfhUbX`XYg][b`dfc`YWgZ`Ug`k Y`Ug
dfYgYbhU]cbg`k \YfY`gca YcbY`dfYgYbh]`Ubc`hYf`g`]XYUg`cf`k cfXg`k]h`ci hW`YX]h`

hUddfcdf]UHY`dUfUd`fUg]b[.`7`U`b[]b[`U`ZYk`k cfXg`UbX`d`fUgYg`k`Y`a cghmiFYhU]b]b[`hY`cf][]bU`
ghfi W`i fY`UbX`#`f`dfc[fYgg]cb`cZ]XYUg`cZ`hY`cf][]bU`Z`UbX`]bZcfa U]cb`k]h`ci hUW_bck`YX[Ya Ybh`H\]g`U`gc
Udd`]Yg`]b`dfYgYbhU]cbg`k \YfY`gca YcbY`dUfUd`fUgYg`Ubc`hYf`g`]XYUg`cf`k cfXg`k]h`ci hW`YX]hU`bX`hc
d]YW]b[`hc[Y`hYf`ei chYg`UbX`dUfUd`fUgYg`]bhc`U`bYk`k \c`Y`Z`k]h`ci hUddfcdf]UHY`fYZYfYbW]b["

7 c`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_]7 c`i g]cb`U`gc
]bWi XYg`dfcj]X]b[`mci f`k cf_]hc`Ubc`hYf`gh`XYbhVYZc`fY`hY`Xi Y`XUHY`Zc`f`Zc`hY`di fdcgY`cZ`hY`a

- 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 ""

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

5 WUXYa]WbZcfa Uhcb`

: cfYggYbhU`ghi XYbh]bZcfa Uhcb`fY`Uh]b[`hc.

- fYei Yghg`ZcfYI hYbg]cb/
- `UhY`gi Va]gg]cbg`[i]XY`]bYg/
- fYj]Yk`cZa Uf_g/
- I B GK `<YU`h`UbX`GUZYfmidc`]WYg/
- YI Ua]bUh]cb`dfcVWXi fYg/
- gdYWU`Vc]bg]XYfUh]cb`]b`hY`Yj YbhcZ]`bYgg`cf`a]gUXj Ybhi fY/
- ghi XYbhYei]hmUbX`X]gUV`]`]m/
- UbX`chYfYggYbh]U`UWUXYa]W]bZcfa Uh]cbZgYY

[\fhdg.##k k k "Ufmg"i bgk "YXi "Ui #W ffYb\]h\]ghi XYbh\]bZcfa Uh\]cb`#dfchVc`g`\[i \]XY`\]bYg#](#)

⇒ U[Y`7 fYX]h

A]b]ghYf]c`XY`9Xi WUW] bZ7i `hi fU`m8YdcfY`"B`Dc.`\$`\$!%&!&, *!)

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; YbYfU`]bZcfa Uh]cb` : [fYW fgcg"YXi WU\]h\] cg4 a YW"Yg](#)

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[7 fYU\]h\] Y`7 ca a cbg`5hf\]Vi h\]cb\]Bcb7 ca a YfWU!G\UfY5`\] Y` "\\$`! bdcfYXff YWc\]bcW\]a \]Ybhc\]Bc7 ca YfWU!](#)
7ca dUfh]f`[i U`f]f 7`6MB 7!G5` "\$Lz

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