



ARTS2362

5`YbUh]cb`UbX`GcW]U``7 f]h]ei Y

HYfa `Hk c``#`&\$&%

7ci fgY`Cj Yfj]Yk

GhJZ`7cbhJW`8YhJ`g

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B Ua Y	9a U`	5j U]UV]m	@cWjhcb	D\cbY
<Y]_]`=Ä\Y]a c	\"]_U\Y]a c4 i bgk "YXi "Ui	7cbhJW`VmYa U]`Zcf Wtbgj `hJhcb	A cfj Yb`6fck b ' &%	

GWxcc``7cbhJW`bZcfa Uhjcb

GWxcc``cZ<i a Ub]hYg`UbX`@Jb[i U[Yg

@cWjhcb. `GWxcc``C Z]W`žA cfj Yb`6fck b`6i]X]b[ž`@Yj Y``&ž&),

7 ci fgY'8YHJ]`g

7 fYX]hDc]bhtg '*`

Gi a a UfmicZ\hY'7 ci fgY

H\]g`Wci fgY`Ug_g` \ck`U`gcWYfmWU`b`Y[]hja UH`mWf]h]W]gY`]hgY`Z` #iYI Ua]bYg`k` \mi]h]g`h`Uhbc]h]cbg`gi`W`Ug`
ZYYXca` žgY`ZXYH`fa`]bU]cb`UbX`\]g]rcf]WU`d]fc[]fYgg`\Uj`Y`Wca`Y`hc`Uggi`a`Y`U`W`b]fU`d`UW`]b`a`cXYfb`]ZY`
5fY`h`YfY`d`Ui`g]V`Y`k`Um]g`hc`↑`X[]Y`gca`Y`d`Uf]h]W`Uf`XYj`Y`cda`Yb]h]c`ZgcW]U`]ZY`Ug`d]fc[]fYgg]]Y`c`f`
fY[]fYgg]]Y`3`5fY`gca`Y`Z`ca`g`c`ZgcW]U`]ZY`d`U`h`c`c`[]WU`'3`-g`h`Y`d`f]W`c`Za`cXYfb`ZYYXca`U`]YbU]cb`Z`ca`
ci`fgY`j`Yg`UbX`h`Y`bU]h`fU`k`c`f`X3`H`Y`h`Ya`Yg`X]gW`ggYX`]b`h`g`Wci`fgY`a`Um]bW] XY`U`]YbU]cb]X]Yc`c`[]nž`
a`cXYfb]mž`hc`U`]h]f]U]b]ga`ž`dgm`W`c`Ub`U`mg]g`UbX`d`ck`Yf`H`]b`_Yfg`k` \c`a`UmVY`YI`Ua`]bYX`]bW] XY`
F`ci`ggY`Ui`ž`?`Ub]ž`<`Y[]Y`ž`Yi`YfVUW`ž`B`]YmgW`Y`ž`A`Uf]`ž`@`_`W]ž`K`YVYfž`fYi`Xž`<`Y]XY[[]Yfž`5`Xc`fbcž`
<`cf`_\`Y]a`Yfž`5`fYb`X]ž`ci`W]i`h`UbX`c`h`Yf`]b`Zi`Yb]h]U`Z[]i`fYg`]b`W]h]WU`gcW]U`d`]cgcd`m`

7 ci fgY`@YUfb]b[`Ci`hWca`Yg

- %`9j`U`i`UH`h`Y`a`Yf]h]g`UbX`]a`]h]h]cbg`c`Z`_Ym]Udd]fc`UW`Yg`hc`h`Y`d`]cgcd`]WU`d]fc`V`Ya`c`Za`cXYfb]m`
UbX`gcW]U`d`]cgcd`m`
- &`5ggYgg`X]g]h]bW]d]cg]h]cbg`k`]h`fY[]UfX`hc`U`]YbU]cb]ž`ZYYXca`UbX`gcW]U`W]h]ei`Y`]b`_Ymk`cf`_g`]b`
K`YghYfb`d`]cgcd`m`
- '`7f]h]WU`m]Udd]fU]gY`h`Y`fY`Yj`UbW`c`Z`_Ym]Udd]fc`UW`Yg`hc`U`]YbU]cb]ž`ZYYXca`UbX`gcW]U`W]h]ei`Y`]b`
a`cXYfb`d`]cgcd`m]hc`W`b]h`Y`a`d`c`fUfmg`cW]Yfm`
- (`8Yj`Y`cd`UbX`Yb`UbW`g`_`g`UggcW]U`h`X`k`]h`d`]cgcd`]WU`]bei`]mž`gi`W`Ug`W]h]WU`UbU`mg]gž`
h]i`h`U`]b]h]fd]fY]h]cb]ž`Uf[]i`a`Yb]h]UbX`k`f]h]b`YI`d]fYgg]cb`

HYUW`]b[`G]hFUH[]Yg`

H`Y`Wci`fgY`k`]`bcfa`U`m]VY`h]i` []h]k`]h`U`h`c`!` \ci`f`k`YY`_`m`YW]h`fYž`UbX`U`cbY`!` \ci`f`X]gW`gg]cb`!`VUgYX`
h`hc`f]U`]@YW]h`fYg`k`]`VY`]b]h]fUW]h]]Yž`UbX`gh`XYb]h]d]Uf]h]W]d]U]h]cb`]g`YbWci`fU[]YX`]@YW]h`fYg`k`]`Wci`Yf`_Ym`
h`Ya`Yg`UbX`gd]YW]Z]W]h]i`h]g`]b`a`cXYfb`d`]cgcd`mž`Ug`k`Y`Ug`VUW`[]fci`bX`\]g]rcf]WU`]ggi`Yg`H`h`fci` []U`
gY`YW]h]cb`c`Z`fYUX]b[]gž`YI`Yf]h]gYgž`UbX`ga`U`]fci`d`X]gW`gg]cbgž`h`Y`Wci`fgY`k`]`XYj`Y`cd`gh`XYb]h]f]U]]m]hc`
fYUXž`UbU`mgYž`W]h]W]gYž`X]gW`ggž`UbX`]b]h]fd]fY]h]d`]cgcd`]WU`h]YI`h]g`H`Y`fYgYUfW`d`c`f]ž`c`ž`k` \]W`]g`
XYg]]bYX`hc`YbWci`fU[]Y`gh`XYb]h]g`hc`Yb[]U[]Y`h`c`fci` []\`mk`]h`h`Y`d`fYgW]VYX`k`YY`_`m]fYUX]b[]g`T`W`a`d`W`W`U`gg`
UbX`hc`d`fYd]UfY`ei`Yg]h]cbg`Z`c`f`h`Y`h`hc`f]U`ž`]g`U`Wci`fY`Y`Ya`Yb]h]c`Z`h`Y`h`Y`UW`]b[]g]h]fU]h[]mic`Z`h`Y`Wci`fgY`K`Y`
YI`d]YW]h]gh`XYb]h]g`hc`d`Uf]h]W]d]U]h]]b`h`g`Wci`fgY`V`m]U]h]Y`b]X]b[]`YW]h`fYgž`Yb[]U[]b[]k`]h`c`h`Yfg`]b`h`hc`f]U`g`UbX`
cb`]bY`X]gW`gg]cbg`f`k` \YfY`Udd`]W]V`Y`ž`UbX`hc`Wca`d`Y`h`h`Y`fYei`]fYX`fYUX]b[]b`d`fYd]Uf]h]cb`Z`c`f`h`hc`f]U`g`
UbX`YW]h`fYg`h`i`hc`f]U`g`k`]`U`gc`X]gW`gg`fYgYUfW`g`_`g`UbX`k`f]h]b[]g`_`g`

5ggYgga Ybh

5ggYgga YbhHUg_g

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Hi fb]hb'gYHb[. H\]g'Ugg][ba Ybh]g'gi Va]hX'h'fci [\ 'Hi fb]hb'UbX'gh XYbhg'Xc'bcHgYY'Hi fb]hb
g]a]Uf]mfYdcfrg"

5ggYgga Ybh' . '9ggUm

8YHJ]`g.

H\]g'ig'hY'ZbU`UggYgga YbhUg_`Zcf'UthYbXUbW`di fdcgYg": YYXVUW_]g'k f]hYb'Wca a Ybhg'UbX'cf'U
a Uf_]b[`g\YYh

A U`cf'YggUmcb'U`_YmZ[i fY'cf'hYa Y`]b'hY'Wci fgY"

&&\$ \$'k cfXg

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

9ggUmihYa Yg'k]`VY'X]gW ggYX'jb'hY'hi hcf]U`g'UbX']bghfi W]cbg'k]`UddYUf'cb'A ccX'Y"

Hi fb]hb'gYHb[. H\]g'Ugg][ba Ybh]g'gi Va]hX'h'fci [\ 'Hi fb]hb'UbX'gh XYbhg'Xc'bcHgYY'Hi fb]hb
g]a]Uf]mfYdcfrg"

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

H\Y`k YY_`mfYUX]b[`g`k]`VY`UWf]gg]V`Y`h`fci [\ `A ccX`Y"

F YWca a YbXYX`F Ygci fWg

5 ``]ghcZz f\Yf`fYUX]b[`k]`VY`Uj U]UV`Y`cb`A ccX`Y"

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

Gh XYbhZYXVUW_`]g`Wc``YWf]X`h`fci [\ `fA m9l dYf]YbWf]UbX`h`Y`F YgYUfW`DcfhZ`]cZ`UbX`i gYX`Zc`f`Z`h`fY

Gi Va]gg]cb 'cZ5ggYgga YbhiHUg_g

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

Ẓmci 'YbWci bHYf'U'dfcV'Ya 'k \Yb'UHfYa dh]b['hc'gi Va]hmc i f'Ugg][ba YbhiHfci [\ 'Hi fb]h]bž'd'YUgY
HY'Yd\cbY'9I HYfbU'Gi ddcfhcb'-',) " ' ' %cf'Ya U] 'HfYa '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'mYUfI" Ẓmci
UfY'i bUV'Y'hc'gi Va]hmc i f'Ugg][ba YbhiXi Y'hc'U'Zi 'hk]H'Hi fb]h]b'mci 'a UmiUdd'mZcf'Ub'YI HYbg]cbž'Vi hmc i
a i ghfYH]b'mci f'h]W_Yhbi a VYf'Z'ca '9I HYfbU'Gi ddcfhfU'cb['k]H'UbmichYf'fY'Yj UbhXcW a YbfgL'hc
]bWi XY'Ug'Yj]XYbVW'hc'gi ddcfhmc i f'YI HYbg]cb'Udd'jW]h]cb" Ẓmci 'Ya U] '9I HYfbU'Gi ddcfhmc i 'k]`
Ui 'hca UH]W]`mfYW]j; Y'U'h]W_Yhbi a VYfž'Vi h]Zmci 'HY'Yd\cbY'mci 'k]`bYYX'hc'gdYW]Z]W]`mUg_ž'f'cbY"
Hi fb]h]b'U'gc'dfcj]XYg'i dXUH'g'cb'HfY]f'gmghYa 'ghU'g'cb'Hk]HYf"

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']hYg'Ug'U'gh XYbhUhl BGK
-

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`GUZY`mdc`]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]m]UbX`X]gUV`]m/
- UbX`chYf`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#dfchW`g!\[i \]XY`\]bYg#](#)

⇒ U[Y`7 fYX]h

5`fentU`m]ZY`d]W]i fY`Zca `k k k "d] UVUm`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`ghcX]Ubg`cZ`hY`UbXg`cb`k `]W`I BGK
? Ybg]b[`rcb`W`a di g`]g`cW]hYX"