



ARTS2458

5`cb['h\Y`G]`_F cUX. `7 cbei Yfcfgž`HfUXYfg`UbX`9I d`cfYfg

Gi a a Yf`##`&\$%-



7ci fgY`Cj Yfj]Yk

`GHUZZ`7cbhUW`i8YHU]`g`

`7cbj Ybcfg`

B Ua Y	9a U]`	5j U]`UV]`]m	@cWU]hcb	D\cbY
5m Ya `9`]	U"Y`]4 i bgk "YXi "Ui		A 6&(&	Ž *%f&Ł`-' ,) - \$) -

`@YW`i fYfg`

B Ua Y	9a U]`	5j U]`UV]`]m	@cWU]hcb	D\cbY
5m Ya `9`]	U"Y`]4 i bgk "YXi "Ui		A 6&(&	Ž *%f&Ł`-' ,) - \$) -

`Hi hcfg`

B Ua Y	9a U]`	5j U]`UV]`]m	@cWU]hcb	D\cbY
5m Ya `9`]	U"Y`]4 i bgk "YXi "Ui		A 6&(&	- ' ,) - \$) -

GWXcc``7cbhUW`i`bZcfa Uhjcb

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

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

CdYb]b[`<ci fg. `A cbXUm! : f]XUmž`- Ua `!`) da

D\cbY. `Ž *%&`-' ,) `*% , %

: U! . `Ž *%&`-' ,) ; +\$)

9a U]`. [\U`4 i bgk "YXi "Ui](#)

7 ci fgY'8YHJ]`g

7 fYX]hDc]bqg '*`

Gi a a UfmicZh\Y'7 ci fgY

Gi V'YWh5fYU.'5Z[WēWE fgV[Mē

H\]g'Wēi fgY'WJb'U'gc'VY'gh X]YX'Jb'h\Y'Zc`ck]b['gdYW]U'gUh]cb.'3e[S` E fgV[Mē

H\Y'G]_F cUXg'UFY'cZYb'Wēbg]XYfYX'fc'VY'h\Y'k cfX'g'[fYUHYghbYfk cf_cZhfci [\k Umg'h\Uhi]b_YX
7\]bU'fc'h\Y'A YX]ffUUbYUb'k cfX'cj Yf'UbX'UbX'gYU"H\Y'\]gfcf]WU'XYj Y`cda YbhcZ7\]bYgY'W'hi fY'UbX
Wj]]nU]cb'WJbbchVY'gWfi h]b]nYX'k]h\ci hU'fYZYW]j Y i bXYfgfUbX]b['cZh\Y'7\]bYgY'9a d]fY'g'XmbUa]W

ck b`X]gW]d`]bUfmg_]`g`UbX`]bHfYghg`VmVXccg]b[`hcd]Wg`mci `k]g\`h`k`cf_`cb`UbX`Vmi`g]b[`a`Yh`cXg`mci
UfY`ZJa`]Uf`k`]h."

5ggYgga Ybh

@YWñi fY'8UHg'UbX'<ci fg.'

A cbXUm&%>Ubi Ufm!': f]XUm&) '>Ubi Ufm

A cfb]b[. '%\$. \$\$!%&.\$\$

5ZŸfbccb. '%\$\$!' . '\$\$'

K YV!Ybfc''YX'ghi XYbtg'Xc'bcbbYXX'hc'd\mg]WU''mUñYbX'ñY''YWñi fYg''<ck Yj Yfžmci 'UfY'fYei]fYX'hc'']ghYb
hc']hcb'ñY'gUa Y'XUmñUññY''YWñi fYg'UfY'XY'j] YfYX''Gñ XYbtg'Ybfc''YX'j]b'ñY'ZUW!hc!ZUW'WUgg'a i gh
UñYbX'Uñ'YUghi, \$i 'cZñY''YWñi fYg''

Hi hc]U'XUHg'UbX'\ci fg

Hk c!\ci f'ñ hc]U'. '&, 'cf'&- '>Ubi Ufm

ñ'ñ.g'ñi hc]U'gYgg]cbžmci f'[fci d'k]''VY'dfYgYb]b['ñY'[fci d'k cf_'ñUñmci '\Uj Y'dfYdUfYX'cb'ñY
Ugg][bYX'hc]W'5 [U]bž5 @@'ghi XYbtgž]bWñ X]b['k YV!Ybfc''YX'ghi XYbtgž'a i ghUñYbX'ñ.g'&!\ci f'gYgg]cb
d\mg]WU''m'

5ggYgga YbhHUg_g'

5ggYgga YbhHUg_	K Y][\h	8i Y'8UHŸ	Gñ XYbñi@YUfb]b[Ci hWca Yg'5ggYggYX
; fci d'dfYgYbñU]cb'	&)	Bch5dd']WUVY	%ž ž(
C b]bY'ñYghi	')	\$. #&#&\$%- '\$(. \$\$'DA	&ž ž)

5 hYbXUbW`F Yei]fYa YbHg

Gh XYbHg`UFY`gHfcb[`mYbWci fU[YX`hc`UhhYbX`U`WUggYg`UbX`fYj]Yk ``YWih fY`fYWc`fX]b[g"

7 ci fgY`GWXYXi `Y

[J \]Yk`WUgg`hja`YhUV`Y](#)

H]a`YhUV`Y`

8UhY	HmdY	7cbhYbh
K YY_+.`&%>Ubi`Ufm!`&+>Ubi`Ufm	@YWih`fY	A`cb``&%>Ub``%\$.\$\$`!`%&\$. \$\$` 5`[`YbYfU``]bHfcXi`W]cb`hc`hY`G]`_`F`cUX

		<p>5 'BYk 'G]_ 'F cUX'</p> <ul style="list-style-type: none"> H\Y 'fYj]j U'`cZH\Y`WcbWdhcZ'G]_ 'F cUX']b h\Y '&%gh'Wbhi frž Z'ca ' [Yc!dc`]'hWU`UbX YWt'bc a]WdYfgdYWj] Yg
Gh X]c		<p>: f]" '%8YW%) .%) !%) .(\$</p> <p>9I dYf]YbW]b['Di fY '@UbX' 'f]7]bYa UžI BGK W]a di gŁ! 'GYgg]cb'Hk c</p> <ul style="list-style-type: none"> Mci '\Uj Y'h\Y'cdh]cbg'fc'YI dYf]YbW' 'Di fY

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

5`a UXY`Uj U]UV`Y`cb`A ccX`Y

F YWca a YbXYX`F Ygci fWg

5`a UXY`Uj U]UV`Y`cb`A ccX`Y

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

H\]g`Wci fgY`]g`Zcfa U`mYj U`i UhYX`h\fcj [\`A m9I dYf]YbW`": i fh\Yf`XYj Y`cda YbhUbX`UX↑gha YbhUfY`a UXY
UWwcfX]b[`hc`ghi XYbhZYXVUW`UbX`YUfb]b[`YI dYf]YbW`"

Gi Va]gg]cb'cZ5ggYgga YbhHUg_g

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

Ʒmci YbWci bhYf'U'dfcV'Ya 'k \Yb'UHYa dh]b['hc'gi Va]hrci f'Ugg][ba YbhHfci [\ 'Hi fb]h]bzd'YUgY
HY'Yd\cbY'9I HYfbU'Gi ddcfhcb'-',) ' ' ' %cf'Ya U]'hYa 'cb' [YI HYfbU'HY'fji ddcfh4 i bgk "YXi "Ui."](#) Gi ddcfh
\ci fg'UfY', .\$\$Ua '-'%. \$\$da 'cb'k YY_XUmg'UbX'-. \$\$Ua '-'). \$\$da 'cb'k YY_YbXg'f1 *) 'XUmg'U'mYUfL' Ʒmci
UfY'i bUVY'hc'gi Va]hrci f'Ugg][ba YbhXi Y'hc'U'ZU' 'hk]h'Hi fb]h]b'mci 'a UmiUdd'miZcf'Ub'YI HYbg]cbZ'Vi hrci
a i ghfYhU]b'mci f'h]W_Yhbi a VYf'Z'ca '9I HYfbU'Gi ddcfhfU'cb['k]h'UbmchYf'fY'Yj UbhXcW a YbhgE'hc
]bWi XY'Ug'Yj]XYbW'hc'gi ddcfhrci f'YI HYbg]cb'Udd']W]h]cb" Ʒmci 'Ya U]'9I HYfbU'Gi ddcfhrci 'k]`
Ui hca Uh]W]m'fYW]j Y'U'h]W_Yhbi a VYfZ'Vi h]Zmci 'HY'Yd\cbY'mci 'k]`bYYX'hc'gdYW]Z]W]m'Ug_'Zcf'cbY"
Hi fb]h]b'U'gc'dfcj]XYg'i dXUH'g'cb'hY]f'gmg'hYa 'ghU]h'g'cb'Hk]hYf"

; YbYfU'm'UggYgga YbhHUg_g'a i ghVY'gi Va]hYX'Y'YWfcb]W]m'j]U'Y]h'Yf'Hi fb]h]b'cf'U'A ccX'Y
Ugg][ba Ybh'f']bg]h]b]W]g'k \YfY'h.]g']g' bchidcgg]V'Yz'hk]`VY'g]hYX'cb'mci f'Wci fgY'g'A ccX'Y'g]h'k]h
U'hYfbU]j Y'gi Va]gg]cb'XYhU]g"

: cf']bZ'fa Uh]cb'cb'\ck 'hc'gi Va]hUgg][ba Ybh'g'cb']bY'j]U'A ccX'Y.

[\h\]dg.#gh XYbhi bgk "YXi "Ui #ck !gi Va \]hUgg\]\[ba Ybh'a ccX'Y](#)

@UH'5ggYgga YbhDYbU'h]Yg'

Gh XYbh]UfY'fYgdcbg]V'Y'Zcf'hY'gi Va]gg]cb'cZUggYgga YbhHUg_g'Vmi'hY'f'Yei]fYX'XUH'g'UbX'h]a Yg"
8YdYbX]b['cZ'hY'YI HYbh'cZXY'Um]b'hY'gi Va]gg]cb'cZUb'UggYgga YbhHUg_g'dUgh'hY'Xi Y'XUH'UbX'h]a Yz
cbY'cZ'hY'Zc'ck]b['UH'dYbU'h]Yg'k]`Udd'mi b'Ygg'gdYW]U'W'cbg]XYfU]h]cb'cf'U'V'Ub_YhYI HYbg]cb'Xi Y'hc'U
hVXb]W]ci hU]Y']g[fUb'hYX": cf'hY'di fdcgY'cZ'UH'dYbU'm'W]W'Uh]cbZ'U'XUm']g'XYYa YX'hc'VY'YUWX

hY'k cf_]g'U'Wta di `gcfmWti fgY'Wta dcbYbhflni fX'Y'fYei]fYa YbhZ'U'ghi XYbhk]`VY'XYYa YX'hc'\Uj'Y'a Yh
hUhfYei]fYa Ybh'

K cf_]gi Va]hYX'&\$'cf'a cfY'XUmg'UZhf'hY'gh]di `UH'X'XYUX']bY'k]`bchVY'UWVdh'X'Zcf'UggYgga Ybh
UbX'k]`fYW'j Y'bc'ZYXVUW'za Uf_'cf'[fUXY'"Z'hY'UggYgga YbhUg_]g'U'Wta di `gcfmWta dcbYbhicZ'hY'
Wti fgY'U'ghi XYbhk]`fYW'j Y'Ub'l bgUhgZUWcfmi: U]'fl : E'[fUXY'Ug'U'fYgi `hcZi bgUhgZUWcfmidYfZ'fa UbW'
]b'Ub'YggYbh]U'Wta dcbYbhicZ'hY'Wti fgY"

H\]g']bZ'fa Uh'cb']g'U'gc'Uj U]UV'Y'Uh' [\hfdg.#k k k "Ufng"i bgk "YXi "Ui #W ffYbhghi XYbhg#JWJXYa \]W
\]bZ'fa Uh'cb#dfch'W'g!\[i \]XY' \]bYg#](#)

Gi dd`Ya YbhUfmUggYgga Ybhg`

H\Y'Z'fa `cZ'hY'gi dd`Ya YbhUfmUggYgga YbhYXX' bchVY']XYbh]W'`hc'hY'cf][]bU'UggYgga YbhVi h]ha i gh

f`DfYj Ybhmc i`Zca`Wca d`Yh]b[`U`Wci fgY`fYe i`JfYa Ybłż

f`?YYd`mci`Zca`UHYbX]b[`Ub`UggYggUV`Y`UW]j`]mż

f`Ghd`mci`gi`Va`]h]b[`UggYggUV`Y`k`cf`_`Zcf`U`Wci`fgYż

f`G][`b]Z]W]b]h]m]U]Z]Y]W]h]m]i`f`d`Y`f`Z`c`f`a`U`b`W`W`]`b`U`g`g`Y`g`g`U`V`Y`k`c`f`_`Z`V`Y`]`h`U`Z`c`f`a`U`Y`b`X`!`c`Z`h`f`a`Y`I`U`a`]`b`U`h`c`b`ż`U`W`U`g`g`h`Y`g`h`ż`U`U`V`c`f`U`h`c`f`m`h`Y`g`h`ż`U`g`Y`a`]`b`U`f`d`f`Y`g`Y`b`h`U`h`c`b`c`f`U`b`m`c`h`Y`f`Z`c`f`a`c`Z`U`g`g`Y`g`g`a`Y`b`h`

:`c`f`Z`f`h`Y`f`X`Y`h`U`]`g`]`b`f`Y`U`h`c`b`h`c`G`d`Y`W`U`7`c`b`g`]`X`Y`f`U`h`c`b`]`b`W`i`X`]`b`[`K`Y`b`h`c`5`d`d`m`ż`<`c`k`h`c`5`d`d`m`U`b`X`G`i`d`d`c`f`h`]`b`[`8`c`W`a`Y`b`h`U`h`c`b`d`Y`U`g`Y`f`Y`Z`f`h`c`h`Y`G`d`Y`W`U`7`c`b`g`]`X`Y`f`U`h`c`b`k`Y`V`g`]`h`.

[\hhdg.#gh.XYbłi.bgk.YXi.Ui.#gdYWU!Wcbg\]XYfUhcb](#)

5 WUXYa]W<c bYghmUbX`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]g`UbchYf`g`]XYUg`cf`k cfXg`k]h`ci hW`YX]h`

hUddfcdf]UHY`dUfUd`fUg]b[.`7`Ub[]b[`U`ZYk `k cfXg`UbX`d`fUgYg`k \]Y`a cghmifYU]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`UbchYf`g`]XYUg`cf`k cfXg`k]h`ci hW`YX]h`UbX`hc
d]YW]b[`hc[YhYf`ei chYg`UbX`dUfUd`fUgYg`]bhc`U`bYk `k \c`Yz`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`UbchYf`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][\hžI 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]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](#)

