



ARTS2212

Gci ħYUgh5g]U

HYfa `H\fYY`##`&\$&\$

7 ci fgY`Cj Yfj]Yk

GHJZZ`7 cbhJW`8YhU]`g

7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]m	@cW]hcb	D\cbY
A]bU`F cWg	a "fcWg4 i bgk "YXi "Ui	W`b]W`a Y`j]U Ya U]`	A cfj Yb`6fck b ') -	

GWcc``7cbhJW`bZcfa Uh]cb

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

@cW]hcb. `GWcc``C Z]W`ZA cfj Yb`6fck b`6i]X]b[ž`@Yj Y``&ž&),

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

D\cbY. `Ž`*%&`-`' ,)`:`%*, %

: Ul. `Ž`*%&`-`' ,)` ; , +\$)

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

7ci fgY'8YHJ`g

7fYX]hDc]bHg`*`

Gi a a UfmicZhY'7ci fgY

H\Y`Wci fgY`ZcW`gYg`cb`a`cXYfb`Gci hYUgh5g]U`g]bW`hY`YbX`cZhY`Wc`cb]U`dYf]cX`i`bh`hY`dfYgYbhXUm`
`bgh`UX`cZhY`fUX]h]cbU`]bhYfdYfU]h]cbz`k` \]W`gYg`U`fYbX`rc`k`UfXg`Ui`h`cf]hUf]Ub]ga`zk`Y`g`U`fYUX`
`\]g`fmiUbX`dc`]h]Vg`]b`Wc`bH`a`dcfUfmGci hYUgh5g]U`Ug`Ub`i`bFYgc`j`YX`Wc`bZ]W`hVYk`YYb`tk`c`Wc`a`dYh]b[
`gm]h`a`g`!!`X]W`U`h`fg`d`UbX`XYa`c`W`U`W`i`h`Y`U`i`h`c`f]hUf]Ub`fY[]a`Yg`cZA`U`f`Wc`g`z`Gi` \U`f`r`c`f]b`W`i`X]b[`h`Y`
`%-`*)`_]`b[`g`]b` `X`cb`Yg]U`z`A`U` \U`h`]f`z`@`Y`Y`?`i`Ub`M`Y`k`z`h`Y`?` \a`Y`f`F`ci` [`Y`z`6`i`fa`U`#`n`U`ba`U`f`z`h`Y`a`cb`U`f`W`m`
`UbX`a`]`]hUfm]b`H` \U]`UbX`z`UbX`J`]Y`h`Ua` `g]b`V`W`%`-`-`k`]`d`f`c`j`]X`Y`g`ca`Y`W`U`g`Y`g`h`i`X]Y`g`h`f`c`i` [` \ `k` \]W` `h`c`
`UbU`mgY`Gci hYUgh5g]Ub`dc`]h]W`X`mb`Ua`]V`g`z`]b`W`i`X]b[`Wc`ff`i`d`h]c`b`z`b`Y`d`c`h]ga`z`gc`W`U`a`c`j`Ya`Y`b`h`g`z`h`Y`
]a`d`U`W`h`c`Z`h`Y` `b`h`f`b`Y`h`UbX` :`U`W`V`cc`_`f`c` ``g`c`b`Y`Y`W`]c`b`g`z`h`Y`f]gY`c`Z`d`c`d`i` `]g`h`Y`U`X`Y`f`g`z`UbX`h`Y` ``]b`_`g`
`V`Y`k`Y`Y`b`f`Y`][`cb`UbX`dc`]h]Vg`" `b`U`X`X]h]cb`z`m`c`i` `k`]`Y`U`f`b`U`V`c`i`h`Wc`b`H`a`dcfUfm]g`gi`Y`g`gi`W` `U`g`a`][`f`U`h]c`b`z`
`h`Y`f]gY`c`Z`h`Y`a`]X`X`%`W`U`gg`Y`g`z`h`Y`a`U`b`m`Z`U`W`g`c`Z`h`c`i`f]ga`z`UbX`Y`h`b]W`a`]b`c`f]h]Y`g`gi`W` `U`g`h`Y`F`c` \]b[`n`U`
`W`]g]g`]b`A`n`U`ba`U`f`

7ci fgY`@YUfb]b[`Ci hWc`a`Yg

%`5`b`U`mgY`_`Y`m`Y`]`Y`b`h`g`z`]X`Y`U`g`z`d`Y`c`d`Y`U`b`X`f`Y`b`X`g`W`c`j`Y`f`Y`X`V`m`h`Y`W`c`i`fgY`"
`&`" `A`U`_`Y`g`W`X`c`U`f`m`U`f`[`i`a`Y`b`h`g`i`g]b[`]b`X`Y`d`Y`b`X`Y`b`h`m`i`c`W`U`h`X`U`b`X`W`f`Y`X]V`Y`Y`j`]X`Y`b`W`
`'`" `7`c`b`X`i`W`h]b`X`Y`d`Y`b`X`Y`b`h`g`W`X`c`U`f`m`f`Y`g`U`f`W`X`

5ggYgga Ybh

H\Y'a Uf_]b['fi Vf]WZc'f'h\Y'9ggUm\Ug'VYYb'i d'cUXYX'j]bfc 'h\Y'A ccX'Y'g]h''

fYgYUfWk 'dfc YW' 'Gh XYbthg 'g\ci 'X'gi Va]hU'*\$ \$k cfX'UbU'mg]g'UbX'U'cbY'dU[Y'UbbcbUfX'V]V]c[fUd\m
cb'hY'Xi Y'XUH"

Hi fb]hb'gYH]b[. H\]g'Ugg][ba Ybh]g'gi Va]hY'X'h'fci [\ 'Hi fb]hb'UbX'gh XYbthg'WJb'gYY'Hi fb]hb'g)a]'Uf]m
fYdcfthg"

5ggYgga Ybh&. F YgYUfWk '9ggUm

GHUfhXUH. '&#/\$- #&\$&\$' \$) . \$ \$' DA

@Yb[h. 'W \$ \$ \$' k cfXg

8YHJ]`g.

F YgYUfWk '9ggUmVfc_Yb'Xck b']bhc—V]V]c[fUd\mž'UVghfUW'h'UbX'Z]bU'YggUmGh XYbthg'k f]h'Ub'YggUmfWJ"
' \$ \$ \$' k cfXg]b'fYgdcbgY'hc'cbY'cZ'hY'ei Ygh]cbg'i g]b['gWkc'Ufg\]d']b'Gci h'YUgh5g]Ub'gh'X]Yg": YYXVUW_
]g'h'fci [\]bX]]Xi U'W'ca a Ybthg'UbX'fi Vf]W'H\]g']g'hY'Z]bU'UggYgga YbhZ'f'U'h'Y'bXUbW' 'di fdcgYg"

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

D'YUgY'c[']bhc'hY'A ccX'Y'G]h'Z'f'hY'W'ei fgY'UbX'UW'W'gg'hY'Z]Y'Ybh]hYX' "9ggUmHcd]W]g'UbX
6]V]c[fUd\]Yg""

Hi fb]hb'gYH]b[. H\]g'Ugg][ba Ybh]g'gi Va]hY'X'h'fci [\ 'Hi fb]hb'UbX'gh XYbthg'WJb'gYY'Hi fb]hb'g)a]'Uf]m
fYdcfthg"

5ggYgga Ybh' . F YgdcbgYg'hc'fYUX]b[g

GHUfhXUH. : fca '%(#/\$- #&\$

@Yb[h. ') \$ \$! * \$ \$ ' k cfXg

8YHJ]`g.

Gh XYbthg'gi Va]hU'fYgdcbgY'fWJ") \$ \$! * \$ \$ ' k cfXg]hc'gY'hei Ygh]cbg'cb'k YY_mfYUX]b[g'VYZ'fY'k c
h'hc'f]Ug"" : YYXVUW_]g'Vm]bX]j]Xi U'W'ca a Ybthg'UbX']b!WUgg'X]gW'gg]cb"

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

GYY'hY'Z]Y' "Hi hc'f]U'F YUX]b[g'UbX'E i Ygh]cbg'Z'f'8]gW'gg]cb""]b'hY'A ccX'Y'g]h'hc'Z]bX'hY'fY'Yj Ubh
ei Ygh]cbg'Z'f'hY'ei fbU'g'Xi Y'Uh'h'hc'f]U'g']b'k YY_g'&'UbX' ("'F YUX]b[g'UfY'U'X][]hgYX'UbX'UW'W'gg]V'Y'hc
gh XYbthg'j]U'hY' [fYb'@Y [Ubhc ""MfUfm""]b_]b'hY'A ccX'Y'g]h'Z'f'h']g'W'ei fgY"

Hi fb]hb'gYH]b[. H\]g'Ugg][ba Ybh]g'gi Va]hY'X'h'fci [\ 'Hi fb]hb'UbX'gh XYbthg'WJb'gYY'Hi fb]hb'g)a]'Uf]m
fYdcfthg"

5ggYgga Ybh(. HYgh

GhUfhXUHY. %* #/%#&\$&\$ %&.\$\$.DA

8YhU]`g.

Gh XYbthg`Wta d`Yh`U`h`ghfWJ"&`\ci fgL`Ubgk Yf]b[`ei Ygh]cbg`VUgYX`cb`h`Y`YW`fYg"

Hi fb]h]b`gYh]b[. H\]g`Ugg][ba Ybh]g`gi Va]hYX`h`fci [\ `Hi fb]h]b`UbX`gh XYbthg`Xc`bchgYY`Hi fb]h]b`g]a]Uf]hmfYdcfthg"

K YY_-'-' Bcj Ya VYf! % 'Bcj Ya VYf	@YWh fY	7 `Ugg`HYgh
	Hi hc f]U`	⊖X]j]Xi U`9I YfW]gY`8]gW gg]cbg`W⊖b]bi YX
		8 cW a YbHfmc b`hY`H\U]?]b[`
K YY_`%\$.`%* Bcj Ya VYf! &\$`Bcj Ya VYf	@YWh fY	HYgh
	Hi hc f]U`	⊖X]j]Xi U`9I YfW]gY`8]gW gg]cbg`W⊖b]bi YX
	C b`]bY`5W]j]hm	8]gW gg]cb`6cUfX`UW]j]hYg`Ug`k Y``Ug`J]Yk]b[`UbX W⊖a a Yb]b[`cb`YUW`c hYff⊖`⊖X]j]Xi U`9I YfW]gY YI \]V]hg`]b`hY`DUX`Yh`

F Ygci fWg

DfYgWf]VYX F Ygci fWg

H\YfY'UfY'bc'hI h\cc_g'fYei]fYX'Zcf'h\]g'Wci fgY"

D'YUgY''c[']bhc'hY'A ccX'Y'G]h'Zcf'hY'7ci fgY"5''fYUX]b[g'Zcf'hY'h hc]U'g'\Uj Y'VYYb'X][]hgYX'Zcf
ghi XYbtg'UbX'UfY'UWYgg]V'Y'j]U'hY'[fYYb'@Y[Ubhc''b_'hc'hY'']VfUfmYbh'hYX!! F Yei]fYX'fYUX]b[g'Zcf
h hc]U'g""D'YUgY''c[']bhc'hY'A ccX'Y'g]h'Zcf'hY'Z'Y'cb'Hi hc]U'F YUX]b[g'UbX'E i Ygh]cbg'Zcf'8]gW gg]cb"

F YWca a YbXYX F Ygci fWg

D'YUgY''c[']bhc'hY'A ccX'Y'G]h'Zcf'hY'Wci fgY'UbX'W]W'cb'hY'Z'Y''9ggUmE i Ygh]cbg'UbX'6]V']c[fUd\]Yg"
k \]W'\Ug'hY'']ghcZYggUmei Ygh]cbg'UbX'fYWca a YbXYX'fYUX]b[g'Zcf'YUW'hcd]W

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

G %o %o %o

Gi Va]gg]cb`cZ5ggYgga YbhiHUg_g

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

≠mci`YbWci`bHYf`U`dfcV`Ya`k` \Yb`UHYa`dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`h`fci`[`\`Hi`fb]h]b`z`d`YUgY`
HY`Yd`l`cbY`9I`HYfbU`Gi`ddcfhcb`-`,`)`"``"``%cf`Ya`Uj`h`Ya`icb`YI`HYfbU`HY`hgi`ddcfh4`i`bgk`"YXi`"Ui`""Gi`ddcfh`
l`ci`fg`UfY`,`.\$\$Ua`-`-%\$.\$\$da`icb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`icb`k`YY`YbXg`f1`*)`XUmg`U`mY`Uf2`≠mci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`Xi`Y`hc`U`Zi`h`k`]h`Hi`fb]h]b`mci`a`UmUdd`m`Zc`f`Ub`YI`HYbg]cb`z`Vi`hmc`i`
a`i`ghf`Yh]b`mci`f`h]W`Yhbi`a`VYf`Z`ca`9I`HYfbU`Gi`ddcfh`f`U`cb[`k`]h`Ubmc`h`Yf`fY`Yj`Ubh`Xc`W`a`Yb`hg`L`hc`
]b`Wi`XY`Ug`Yj`]XYb`V`hc`gi`ddcfhmc`i`f`YI`HYbg]cb`Udd`]W]h]cb`≠mci`Ya`Uj`9I`HYfbU`Gi`ddcfhmc`i`k`]`
Ui`hc`a`U]W]m`f`Y`W]j`Y`U`h]W`Yhbi`a`VYf`z`Vi`h]Z`mci`HY`Yd`l`cbY`mci`k`]`b`YYX`hc`gd`Y`W]Z]W]m`Ug`_`Zc`f`cbY`
Hi`fb]h]b`U`gc`d`fcj`]XYg`i`d`XU`HY`g`cb`h`Y]f`gm`gh`Ya`ig`h`U`h`g`cb`Hk`]h`Y`f`"

;`YbYfU`mz`UggYgga`YbhiUg_g`a`i`gh`VY`gi`Va`]h`Y`X`Y`Y`W`f`cb]W]m`j`]U`Y`]h`Y`f`Hi`fb]h]b`cf`U`A`cc`X`Y`
Ugg][`ba`Yb`h`-`b]b`gh`U`b`W`g`k` \Y`fY`h`l`g`]g`b`ch`d`c`gg]V`Y`z`]h`k`]`VY`g`h`U`HY`X`cb`mci`f`W`ci`fg`Y`g`A`cc`X`Y`g`]h`k`]h`
U`HY`fb`U`h]`Y`gi`Va`]gg]cb`X`Y`h]g`"

:`cf`]b`Z`fa`U`h]cb`cb`l`ck`hc`gi`Va`]h`Ugg][`ba`Yb`hg`cb`]b`Y`j`]U`A`cc`X`Y`.`h`hdg`#`gh`XYb`h`i`bgk`"YXi`"Ui`#`ck`!
gi`Va`]h`Ugg][`ba`Yb`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'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#J'Vci h' \]gY](#)

5 WUXYa]W=Zcfa Uh]cb

: cf`YggYbh]U`ghi XYbh]bZcfa Uh]cb`fY`Uh]b[`tc.

- fYei Ygth`Zc`YI H`bg]cb/
- `Uh`gi Va]gg]cbg`[i]XY`]bYg/