

ARTS2150

H\Y'A U_]b['cZHfi a dfg'5a Yf]WU

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

7 ci fgY`Cj Yfj]Yk

`GHUZZ7cbhUWhi8YHU]`g`

`7cbj Ybcfg`

B Ua Y	9a U]`	5j U]UV]]m	@cWU]hcb	D\cbY
8Ub]Y`': `Ya]b[\U`4 i bgk "YXi "Ui	H65	H65	H65

GWXcc``7cbhUWhi`bZcfa Uh]cb

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

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

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

D\cbY. `Ž*%&`-' ,) `%, %

: U! . `Ž*%&`-' ,) `; , +\$)

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

7ci fgY'8YHJ`g

7fYX]hDc]bfg`*`

Gi a a UfmicZ`h`Y'7ci fgY

Gi V`Y`W`h`U`f`Y`U`.: [efack

H\Y`Y`Y`W`h`c`b`c`Z`8`c`b`U`X`H`f`i`a`d`h`c`h`Y`I`b`]h`X`G`H`U`h`g`d`f`Y`g`X`Y`b`W`h`\`[\`]\`h`g`[`U`d`]b`[`f`]z`g`]b`h`Y`g`c`W`Y`h`m`U`b`X`d`c`]h`W`g`c`Z`h`Y`W`c`b`h`Y`a`d`c`f`U`f`m`l`b`]h`X`G`H`U`h`g`"8`Y`W`X`Y`g`c`Z`]b`W`Y`U`g`]b`[`]b`Y`e`i`U`]m`z`[`c`V`U`]g`U`h`]c`b`U`b`X`W`h`i`f`U`W`c`b`Z`]h`i`V`Y`h`k`Y`Y`b`f`Y`][`]c`i`g`W`c`b`g`Y`f`]U`h`]Y`g`z`]V`Y`f`U`f`]U`b`g`U`b`X`k`\`U`h`5`a`Y`f`]W`b`g`W`U`f`]V`Y`f`U`g`f`\`U`j`Y`Y`Z`h`5`a`Y`f`]W`b`d`c`]h`W`g`U`b`X`g`c`W`Y`h`m`a`c`f`Y`X`]j`]X`Y`X`h`U`b`]h`\`U`g`V`Y`Y`b`Z`c`f`\`U`Z`U`W`b`h`f`m`5`h`h`Y`g`U`a`Y`h`a`Y`z`h`Y`I`b`]h`X`G`H`U`h`g`f`Y`a`U`]b`g`h`Y`k`c`f`X`f`g`[`f`Y`U`h`g`h`d`c`k`Y`f`z`Y`I`Y`f`W`]g`]b`[`U`b`Y`b`c`f`a`c`i`g`g`U`m`]b`[`c`V`U`[`c`]Y`f`b`U`b`W`z`Z`c`a`Y`W`c`b`c`a`]W`g`h`c`h`Y`Y`b`j`]f`c`b`a`Y`b`h`H`\`g`W`c`i`f`g`Y`I`d`c`f`Y`g`_`Y`m`Y`Y`a`Y`b`h`g`]b`h`Y`a`U`_]b`[`c`Z`H`f`i`a`d`f`g`5`a`Y`f`]W`":`c`W`g`]b`[`d`U`f`]W`U`f`m`c`b`h`Y`d`Y`W`]U`f`&\$`h`!`W`b`h`f`m`l`G`\`]g`h`c`f`]Y`g`c`Z`W`U`g`g`z`f`U`V`W`z`f`Y`][`]c`b`U`b`X`

5ggYgga Ybh

5ggYgga YbhHUg_g`

5ggYgga YbhHUg_	K Y][\h	8i Y'8UH	Gh XYbh@YUfb]b[Ci hWta Yg'5ggYggYX
Hi hcf]U`dfYgYbhUhc]cbg`	%)	Bch5dd`]WUV`Y	%ž&ž(
F YgYUfW`YggUm`) \$	\$\$#0%#&\$%- '\$) . \$\$`DA	%ž&ž ž(
5H\ca Y`Z]bU`YI Ua]bUhc]b`	')	: cfa U`9I Ua `DYf]cX	%ž&ž(

5ggYgga Ybh8YHU]`g

5ggYgga Ybh%`Hi hcf]U`dfYgYbhUhc]cbg

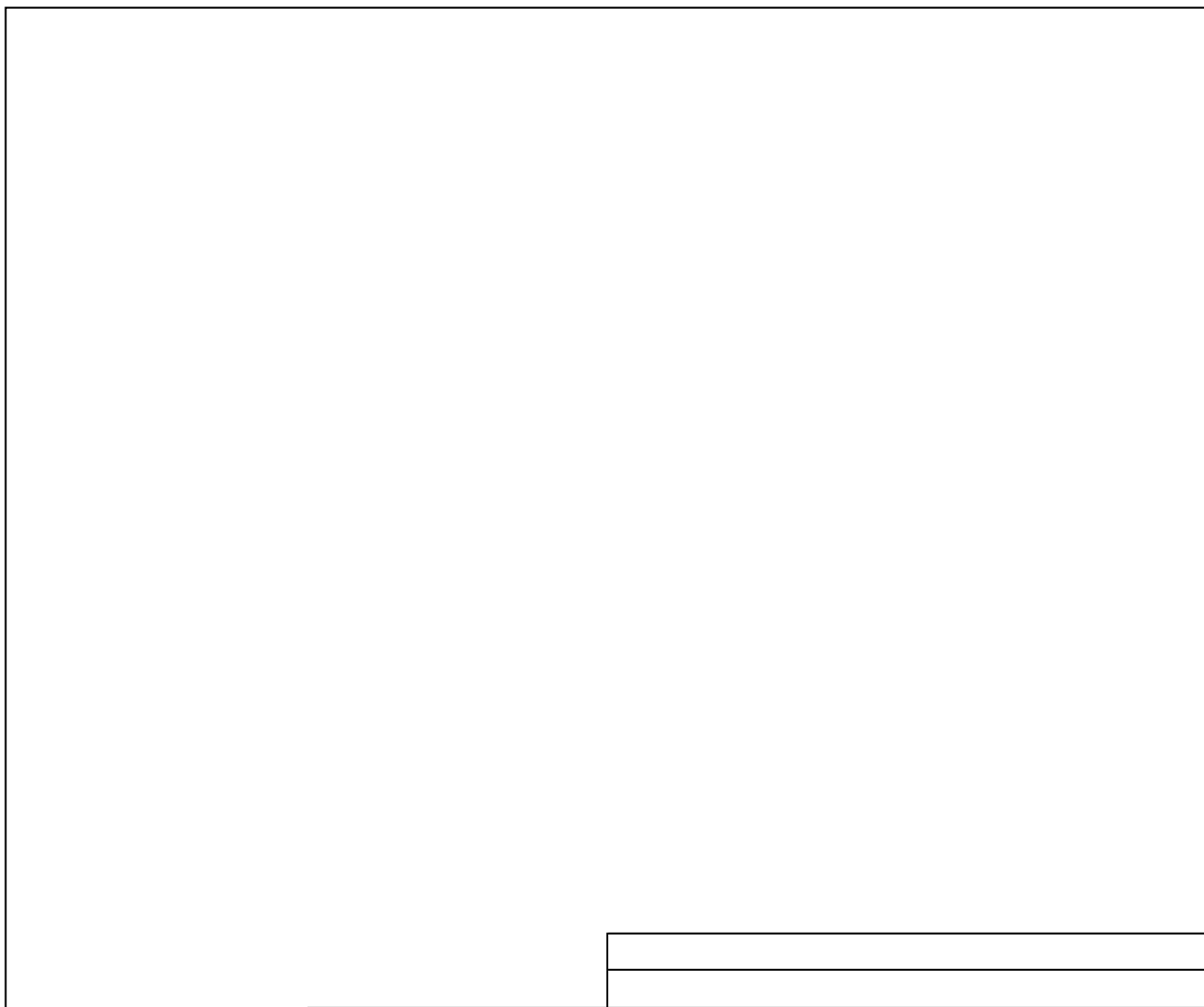
GHUfhXUH. `Bch5dd`]WUV`Y

@Yb[h.) `a]bi hYg

8YHU]`g.) `!a]bi h`dfYgYbhUhc]cbgžUVci h` `gh XYbhg`dfYgYbh]b[`df`h hcf]U`fKYdYbX]b[`cb`hY`g]nY`cZ
h hcf]U`E`5` `]ghcZdcgg]V`Y`hd]Wg`VUgYX`cb`dYfgcbU`]hYgžYj Ybhgžcf`dc`]WYg`k`]`VY`dfcj]XYX`Zcf`hY
gh XYbhg`h`gY`W`UbX`gdYU`_UVci h`H`Y`gh XYbhg`k`]`dfYgYbh]`g]b[`Dck YfDc]bh]a U[Yg#g`]XYg`UbX`cbY

GhUfhXUHY. : cfa U`9I Ua `DYf]cX

8YhU]g. %\$\$\$'k cfXg"Gh XYbtrg'k]`Ubgk Yf'cbY`hYghei Ygh]cb'hUhk]`VY`VUgYX'cb'hY'cbY'cZhY'a U]b
hYa Yg'cZhY'Wti fgY'hUhi\Ug`VYYb`UbU'mgYX'jb'fYUX]b[gzh' hcf]U'g'UbX`YVWi fYg"Gh XYbtrg'k]`fYVW]j Y`U
a Uf`UbX`ZYXVUW`VUgYX'cb'hY'fi Vf]WZca`Hi fb]hb" `H\Y'fi Vf]Wk]`ci h]bY'hY'ghUbXUfXg'cZUggYgga Ybh
VUgYX'cb. i bXYfg]UbX]b[`cZhY'hcd]W'i gY'cZ`]g]hcf]c[fUd\m'i gY'cZYj]XYbWV/g]fYb[h'cZUf[i a Ybh/
k f]hYb`YI dfYgg]cb/fYZfYbW]b[/UbX'dfYgYb]h]cb"



F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

H\]g:k]`VY`a UXY`Uj U]`UV`Y`cb`A ccX`Y

F YWca a YbXYX`F Ygci fWg

H\]g:k]`VY`a UXY`Uj U]`UV`Y`cb`A ccX`Y

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

H\]g:]g`h`Y`Z]fgh]a Y`h`g`Wci fgY`]g`h]i [\h`UbX`=k Y`Wca Y`mci f`Z`Y`X`V`U`W`_`j]U`A m9I dYf]YbW`"

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

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

≠mci`YbWci bHYf`U`dfcV`Ya`k`Yb`U`HYa`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`f`l`*)`XUmg`U`mY`Uf`l`"≠mci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`YbhXi`Y`hc`U`ZU`i`hik`]h`Hi`fb]h]b`mci`i`a`Um`Udd`mi`Zc`f`Ub`YI`HYbg]cb`z`Vi`hmc`i`
a`i`gh`f`Y`h]b`mci`f`h]W`Y`hbi`a`VYf`Z`ca`9I`HYfbU`Gi`ddcfh`f`U`cb[`k`]h`Ubmc`h`Y`f`f`Y`j`Ubh`Xc`W`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]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 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`UbchYf`g]XYUg`cf`k cfXg`k]h`ci hW`YX]hU`bX`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'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'UH'X'UgdY'W'g'cZ9@-G9'k]''\Y'd'mci 'a U_Y'h'Y'a cgh'cZ'mci f'gh X]Yg'Uhl BGK ""

[\h'hd.##gi V'Y'W'i \]X'Yg" \]VfUfm'i bgk "YXi "Ui #' \]gY#UVci h' \]gY](#)

5 WUXYa]WbZcfa Uhcb`

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

- fYei Ygh`ZcfYI hYbg]cb/
-