

# ARTS1510

=blfcXiWcfm; YfaUb'5

GW.cc`cZ<iaUb]Myg`UbX`@Ub[iU[iV] \*\*\*\*BGK`IBGK`5fhgžBYg][bY'VM fY

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

# 7 ci fgY<sup>·</sup>Cj Yfj ]Yk

### GHJZZ7cbHJWh78YHJ]`g

#### 7cbj Ybcfg

BUa Y	9a U]`	5j U]`UV]`]m	@cWUh]cb	D∖cbY
8 Y b ]gY `< UbhY`	X"\UbhY`4 i bgk "YXi "Ui	VmUddc]bha Ybh	A cfj Yb 6fck b &' (	\$&`- \$*) &\$, \$

#### Hi hcfg

BUa Y	9a U]`	5j U]`UV]`]m	@cWUhjcb	D∖cbY
GUV]bU <sup>.</sup> Ni `cj ]W	g"ni`cj]W4 i bgk "YXi "Ui			
B]Wkc`Ug`9bf][\h	b]Wkc`Ug"Ybf][ \h4 i bgk "YXi "Ui			

#### GWXcc``7cbHJWhi=bZcfaUhjcb

GWkcc``cZ<iaUb]h]Yg'UbX'@Ub[iU[Yg

@cWUhjcb. `GW&cc``C ZJWYžA cfj Yb`6fck b`6i ]`X]b[ ž@Yj Y``&ž&),

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

D\cbY. Ž\*%&'-',) %\*, %

: UI . Ž\*%&'-' , ) , +\$)

9a U]`. <u>\U`4 i bgk "YXi "Ui</u>

# 7ci fgY<sup>·</sup>8YHJ]`g

#### 7 fYX]hDc]bhg<sup>·</sup>\*<sup>·</sup>

#### Gi a a UfmcZh\Y'7ci fgY

Zmci 'UfY']bhYfYghYX']b''YUfb]b[ 'h\Y'a cghWea a cb'mgdc\_Yb'2]fgh`Ub[i U[Y']b'9i fcdY'UbX'\Uj Y'bc'df]cf \_bck `YX[Y'cZh\Y'; Yfa Ub''Ub[i U[Yžh\Yb';` fdaVgUfack 9 Wd\_S` 3']g'h\Yf][ \hWei fgY'Zcf'mci "'6UgYX'cb'U Wea a i b]WUhj] Y'UbX'HUg\_!VUgYX'UddfcUV&ž'h\]g'Wei fgY']g'XYg][ bYX'hc `\Y`d'mci 'ei ]W\_`mXYj Y`cd'mci f dfc2]W]YbWn]b'VUg]WcfU`'UbX'k f]hYb'; Yfa Ub''J cWUVi `UfmUbX'VUg]W; Yfa Ub'[ fUa a Uf'UfY'dfYgYbhYX']b WebhYI hg'h\UhUfY'fY'Yj UbhZcf'Yj YfmXUm`Ub[ i U[Y'i gY''=Zmci 'UfY'U'2]fghh]a Y'`Ub[ i U[Y''YUfbYfžk Y'k]` Yei ]d'mci 'k]h\`VUg]W`Ub[ i U[Y'`YUfb]b[ 'ghfUhY[ ]Yg'hc'a U\_Y'mci f'`YUfb]b[ 'dfcWYgg'a cfY'YZYWf] Y'''H\Y Wei fgY']bhfcXi Wfg'mci 'hc']a dcfhUbhZJWYhg'cZ; Yfa Ub'gcW]Yh]Yg'UbX'W `hi fY'UbXž']b'h\]g'k Umž'[ ]j Y'mci 'U VYhYf'i bXYfghUbX]b[ 'cZ']ZY']b'; Yfa Ub!gdYU\_]b[ 'Wei bhf]Yg"

H\]gʻWcifgY`]gʻUʻVY[]bbYfg!`YjY```Ub[iU[YʻWcifgY"`5```gh XYbhgʻk\c`\UjY`\UX`gcaY`YIdYf]YbWY`k]h\ʻh\Y `Ub[iU[YžY]h\Yf`UgʻUʻ\Yf]hU[Y``Ub[iU[Y`cf`h\fci[\`dfYj]cig`]bghfiWf]cbžaighZ]```]b`h\Y`d`UWYaYbh eiYgh]cbbU]fY`UjU]`UV`Y`Uh<u>\hhdg.##\U``Ufhgʻibgk "YXi"Ui#ghiXYbhg#VcifgYg#Ub[iU[Y!d`UWYaYbhg</u>"`Mci`k]`` bchVY`dYfa]hhYX`hc`Ybfc``]b`U``Ub[iU[Y`WcifgY`h\Uh]gʻhcc`YUgmiZcf`mci"`=Zh\]gʻcWW fgž`mci`k]``VY fYeiYghYX`hc`W\Ub[Y`mcifYbfc`aYbh'

#### 7cifgY`@YUfb]b[`CihWcaYg

- %" I\_gY`U`j YfmVUg]WfUb[Y`cZj cWUVi `UfmUbX`d\fUgYg`]b`; Yfa Ub`UbX`Udd`mU`ZYk `g]a d`Y`fi `Yg`cZ [fUa a Uf"
- &" Î bXYfgHJbX'UbX'i gY'H\Y'; Yfa Ub``Ub[i U[Y']b`g\cfh']bHYfUWf]cbg`]b`ZJa ]`]Uf'Yj YfmXUmg]h UH]cbg" ' " I gY'j YfmVUg]WgHfUHY[]Yg'hc`a U]bHJ]b'Wca a i b]WUH]cb"
- (" =XYbhJZmigca Y`ZYUhi fYg`cZ`]b[i]ghJWUbX`W``hi fU``X]j Yfg]hmž`]bWi X]b[`h\Y`j Uf]YX`bUhi fY`cZh\Y ; Yfa Ub!gdYU\_]b[`k cf`X"
- ) "FYZYWicb``YUfb]b[`dfcWgg`UbX``YUfb]b[`glfUhY[]Yg"

#### HYUWX]b[ GhfUhY[]Yg

H\Y'HYUW\]b['gHUHY[]Yg'cZci f; Yfa Ub'WUggYg'UfY'VUgYX'cb'h\Y'Wca a i b]WUh] Y'UbX'HUg\_!VUgYX UddfcUW\%zk \]W\'U]a 'Uh[]j ]b['gh XYbhg'cddcfhi b]h]Yg'hc'dfUWf}Wr'h\Y]f'Wca a i b]WUh]cb'g\_]``g']b'WcbHYI hg h\UhUfY'dYfgcbU``mfY'Yj UbHUbX'WcbbYWYX'hc 'Yj YfmXUm`]ZY'''H\i gž'gh XYbhg''YUfb'U'j YfmUi h\Ybh]Wi gY'cZ h\Y'; Yfa Ub''Ub[i U[Y'Wca V]bYX'k]h\W'h fU`'UbX'\]ghcf]WU'`\_bck 'YX[Y''H\Y'YUfb]b['a UhYf]U`fdf]bhUbX X][]HU'E'UbX'YUfb]b['UWf] ]hYg'fY''['''cb']bY'HUg\_gž'ga U``HUg\_g#dfc'YWg']bg]XY'UbX'ci hg]XY'h\Y'WUggfcca ž g\cfhZ]Wf]cbU``UbX'bcb!Z]Wf]cbU``HYI hgEdfcj]XY'gh XYbhg'k]h\'j Uf]YX'cddcfhi b]h]Yg'hc'dfUWf}Wr'h\Y]f'fYW'dh]jY UbX'dfcXi Wf] Y'g\_]``gž'Ug'k Y```Ug'h\Y]f'j c'WU'i UfmUbX'VUg]W; Yfa Ub'[fUa a Uf''K Y'YbWc'i fU[Y'gh XYbhg'hc i gY'gi ]HU'Y'`Ub[i U[Y'`YUfb]b['gffUHY[]Ygž'UbX'hc']bXYdYbXYbhmdfUWf}Wf'cf'fYj ]gY'h\Y]f'; Yfa Ub'g\_]``g'cb U'fY[i 'Uf'VUg]gž']bg]XY'UbX'VYmcbX'h\Y'WUggfcca ''H\Y'`Ub[i U[Y'cZ]bghfi Wf]cb']gdfYXca ]bUbhm; Yfa Ub fUdUfhZfca 'gca Y'YI d'UbUh]cb'cZ[fUa a Uh]WU'ZYUhi fYgE'gc'h\Uhighi XYbhg'XYj Y'cd'h\Y]f'']ghYb]b['g\_]`g''=b Vch\``YWfi fY'UbX'h 'mf]U'gž'k Y'UfY'i g]b['X]ZYfYbh`YUfb]b['UddfcUW\Yg'UbX'a cXYg'cZ]bghfi Wf]cb fdfYgYbHJh]cbgž'dU]f'cf'ga U``[fci d'k cf\_z']bX]j ]Xi U``Ugg][ba YbhgE'hc'dfcj]XY'II hYbg]j Y'UbX'a cfY'\c`]gh]W cddcfhi b]h]Yg'hc'']ghYb'hz'zgdYU\_UbX'k f]hY']b'; Yfa Ub''

H\]gʻWcifgY`]gʻUʻVY[]bbYfg!`YjY``Ub[iU[YʻWcifgY"`5``ghiXYbhgʻk\c`\UjY`\UX`gcaY`YIdYf]YbWY`k]h\ʻh\Y `Ub[iU[YžY]h\Yf`UgʻU`\Yf]hU[Y``Ub[iU[Y`cf`h\fci[\`dfYj]cig`]bghfiWh]cbžaighZ]```]bʻh\Y`d`UWYaYbh eiYgh]cbbU]fY`UjU]`UV`Y`Uh`\hndg.##\U`"Ufhg"ibgk "YXi"Ui#ghiXYbhg#McifgYg#Ub[iU[Y!d`UWYaYbhg"`Mci`k]`` bchVY`dYfa]hhYX`hc`Ybfc``]b`U``Ub[iU[Y`WcifgY`h\Uh]g`hcc`YUgmiZcf`mci"`-Zh\]g`cVWVfgžmci`k]```VY fYeiYghYX`hc`W\Ub[Y`mcif`Ybfc`aYbh'

# 5ggYgga Ybh

# 5ggYgga YbhHUg\_g

5ggYgga YbhˈhJg_	K Y][ \h	8iY`8UHY	GhiXYbhi@YUfb]b[ CihWcaYgʻ5ggYggYX
DcfhZc`]c'	(\$1	Dcfh2c`]c`=`XiY`%&#\$+`f(daŁ/ Dcfh2c`]c`=:XiY`\$-#\$,`f(daŁ</td><td>%ž &ž ' Ž ( Ž )</td></tr><tr><td>Cb`]bY`Ei]nnYg`</td><td>(\$1</td><td>E i ]n'%'Xi Y'%)#\$*'f(da Ł/ E i ]n'&'Xi Y'&,#\$*'f(da Ł/ E i ]n''.Xi Y'%#\$+'f(da Ł/ E i ]n'(.Xi Y'\$&#\$, 'f(da Ł</td><td>%ž' &ž' (</td></tr><tr><td>GdYU_]b[ 'HYgh'</td><td>&\$1</td><td>Hi h'%`\$) #\$, `\$\$\$Ua '! %%\$\$Ua /Hi h&/ ''.`\$* #\$, %%\$\$Ua '!`\$(.\$\$da</td><td>%ž &ž'</td></tr></tbody></table>	

# 5ggYgga Ybh8YHJ]`g

5ggYgga Ybh'% 'DcfhZc`]c

8YHJ]`g.

Ghi XYbhgʻ\Uj Yʻ+&ʻ\ci fgʻhcʻUhhYa dh'YUVXʻcZh\Yʻcb`]bYʻei ]nnYgʻfei ]nnYgʻcdYbʻ: f]XUmʻ\$(.\$\$da ʻVYZcfYʻh\Y Xi YʻXUhYŁ"

Hi fb]h]b`gYh]b[.`H\]g`]g`bchU`Hi fb]h]b`Ugg][ ba Ybh

5ggYgga Ybh' . GdYU\_]b[ HYgh

8YHJ]`g.

Ghi XYbhgʻWabXi WhiUʻg\cfhiX]U`c[iYʻf)!, `a ]bgŁ`]bʻdU]fgʻcfʻga U```[fci dg"

: YYXVUW\_j ]U'a Uf\_]b[ 'fi Vf]WUbX']bX]j ]Xi U``Wca a Ybhg"

Hi fb]h]b gYh]b[. H\]g ]g bchU Hi fb]h]b Ugg][ ba Ybh

#### 5 HYbXUbWY FYei ]fYa Ybhg

5 HY bXUbWY cZ@YWH fYg#Hihcf]U`g`]g`a UbXUhcfm`]b`H\]g`WcifgY''`#ik]```VY`fYWcfXYX`UhH\Y`VY[]bb]b[`cZ YUW\`@YWHifY'' Hihcf]U``ig]b[`H\Y`@AG'''IbYIW'gYX`UVgYbWY`Zca`acfY`H\Ub`&\$i`cZ @YWHifYg#Hihcf]U`g`k]```fYgi`H`]b`H\Y`UkUfX`cZU`ZU]``[fUXY''`+b`@YWHifYg#Hihcf]U`g`mci`k]```UWHj`Y`mYb[U[Y k]H\`WcfY`WcifgY`WcbHYbHžYbUV`]b[`mci`hc`UHHU]b`7@C`%Z&/`''''

### 7 ci fgY GWX YXi `Y

#### J]Yk WUgg ha YHUV Y

#### H]a YHJV`Y'

8 UHY	Hmd Y	7 cbhybh	
K YY_`%`' %A Um'!`(`>i bY		<b>9]bZØ\fib[`5</b> .`; fYYh]b[gžFYeiYghgž5`d\UVYh⁄ Bia VYfgž7`ch\]b[`7c`cifgž	
K YY_`&.`+`>i bY`!`%% >i bY	Hcd]W	9]bZØ\fib[`6.`7`Uggfcca ž5ddYUfUbWYž6cXnž : Ua ]`nžK YUH\YfžCf][]b	
K YY_'' .`%) `>i bY`!`% >i bY	Hcd]W	<b>? Ud]hY``%</b> fte_` <cvv]ygžgw\cc`ži b]j="" yfg]mžh]a="" yž<br="">8U]`mFcih]bYg</cvv]ygžgw\cc`ži>	
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K YY_`(.`&%`>i bY`!`&) >i bY	Hcd]W	<b>? Ud]hY``%</b> fleŁ` <cvv]ygžgw\cc`žib]jyfg]hmžh]ayž 8U]`mFcih]bYg</cvv]ygžgw\cc`žib]jyfg]hmžh]ayž 	
K YY_`).`&, `>i bY`!`&`>i `m	hHcd]W	<b>? Ud]hY``&amp;</b> `DcggYgg]cbgž; ]Zŋgž=bj]hUh]cbgž7`ch∖]b[ž @Y]gifY	
	5ggYgga Ybh	E i ]n & f&, #\$* `\$(.\$\$da Ł	
K YY_`*.`)	Hcd]W	: `YI ]`K YY_	
K_YY_`+.`%&`>i_`m!`%*`>i_`n	nHcd]W	<b>?Ud]hY</b> `''`f⊯_`HU`YbhgžD`Ubgž8ih]YgžD\mg]WU` 7cbX]h]cbž':YY`]b[g	
	5ggYgga Ybh	DcfhZc`]c =fV&#\$+ \$(.\$\$da Ł</td></tr><tr><td>K_YY_`, .`%-`>i `m!`&' `>i `n</td><td>nHcd]W</td><td><b>?Ud]hY</b>`''f⊨Ł'HU`YbhgžD`Ubgž8ih]YgžD\mg]WU` 7cbX]h]cbž:YY`]b[</td></tr><tr><td></td><td>5ggYgga Ybh</td><td>E i ]n'' f‰ #\$+`\$(.\$\$da Ł</td></tr><tr><td>K YY_'`&*`>i`m!'' \$`>i`n</td><td>00 00</td><td>?Ud]hY``(`f⊯.`<c`]XUmgžgdYWjU``cVWUg]cbgžZfYY!h]aY UWnjj ]hjYg</td></tr><tr><td>K YY_`%\$.`&`5i [igh!`* 5i [igh</td><td>Hcd]W</td><td><b>?Ud]hY``(</b>`f⊨Ł`<c`]XUmgžigdYWjU`icWWJg]cbgžiZfYY! h]a Y`UWMjj ]h]Yg</td></tr><tr><td></td><td>5ggYgga Ybh</td><td>Ei]n'('f\$&#\$, `\$(.\$\$da Ł</td></tr><tr><td></td><td></td><td>GdYU_]b[ `HYghf\$)!\$*#\$, Ł</td></tr><tr><td></td><td></td><td>DcfhZc`]c`=fK YY_'%%'\$-#\$, '\$(.\$\$da Ł</td></tr></tbody></table>	

# Gi Va ]gg]cb cZ5ggYgga YbhHUg\_g

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

Zmci YbWci bhYf'U'dfcV'Ya 'k \Yb'UhYa dhjb[ 'hc'gi Va ]hmci f'Ugg][ ba YbhN fci [ \ 'Hi fb]hjbžd'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'fl \*) 'XUmg'U'mYUfŁ'' Zmci UfY'i bUV'Y'hc'gi Va ]hmci f'Ugg][ ba YbhXi Y'hc'U'ZJi `hk ]h\'Hi fb]hjb'mci 'a UmUdd`mZcf'Ub'YI hYbg]cbžVi hmci a i ghfYhU]b'mci f'hjW\_Yhbi a VYf'Zfca '9I hYfbU'`Gi ddcfhfU'cb[ 'k ]h\ 'Ubmch\Yf'fY'Yj UbhXcW a YbhgŁhc ]bWi XY'Ug'Yj ]XYbWY hc'gi ddcfhmci f'YI hYbg]cb'Udd`]WUh]cb'' Zmci 'Ya U]`'9I hYfbU'`Gi ddcfhimci 'k ]`` Ui hca UhjWU'`mfYWY]j Y'U'hjW\_Yhbi a VYfžVi h]Zmci 'hY`Yd\cbY'mci 'k ]``bYYX'hc'gdYWJZWU``mUg\_'Zcf'cbY" Hi fb]hjb'U`gc'dfcj ]XYg'i dXUhYg'cb'h\Y]f'gmghYa 'gfUh'g'cb'Hk ]hYf"

; YbYfU``mž'UggYgga YbhHUg\_g`a i ghVY`gi Va ]HYX`Y`YWfcb]WU``mj ]U`Y]H\Yf`Hi fb]h]b`cf`U`A ccX`Y Ugg][ ba YbH'`=b`]bgHUbWfg`k \YfY`H\]g`]g`bchdcgg]V`Yž`]hk ]```VY`gHUHYX`cb`mci f`Wci fgY**'**g`A ccX`Y`g]HY`k ]H\ U`HYfbUh]j Y`gi Va ]gg]cb`XYHU]`g"

: cf`]bZcfa Uh]cb`cb`\ck `hc`gi Va ]hUgg][ ba Ybhg`cb`]bY`j ]U`A ccX`Y.`\hhdg.##gh XYbh'i bgk "YXi "Ui #\ck! gi Va ]hUgg][ ba Ybha ccX`Y

# 5WUXYa ]W<cbYghmUbX`D`U[ ]Uf]ga

D`U[]Uf]ga `]g`i g]b[ 'H\Y`k cfXg`cf`]XYUg`cZcH\Yfg`UbX`dfYgYbH]b[ 'H\Ya `Ug`mci f`ck b"`=h\Wb`HU\_Y`a Ubm Zcfa gžZīca `XY`]VYfUHY`W\YUH]b[ 'hc`UWV]XYbHU``mWcdm]b[ 'Zīca `U`gci fW'`k ]H\ci hUW\_bck `YX[ Ya YbH'

I BGK '[fci dg'd`U[]Uf]ga ']bhc'h\Y'Zc``ck ]b[ 'WUhY[cf]Yg.

i bXYfgHUbX\*mci f\*f][\hg\*UbX\*fYgdcbg]V]`]h]Yg\*Ug\*U\*gh XYbhUhI BGK

### 5WUXYa]W=bZcfaUh]cb

: cf<sup>\*</sup>YggYbhJU<sup>\*\*</sup>gh XYbh<sup>\*</sup>]bZcfa UhJcb<sup>\*</sup>fY<sup>\*</sup>UhJb[<sup>\*\*</sup>hc.

- fYei Yghg Zcf Yl hYbg]cb/
- `UhY`gi Va ]gg]cbg`[ i ]XY`]bYg/
- fYj ]Yk 'cZa Uf\_g/
- I BGK '<YU`h`UbX'GUZYImidc`]WjYg/
- YI Ua ]bUh]cb'dfcWYXi fYg/
- gdYWJU``Wcbg]XYfUH]cb`]b`H\Y`Yj YbhcZ]``bYgg`cf`a ]gUXj YbH fY/