

ARTS3023

:]W1]cb'K f]h]b[

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

7ci fgY[·]Cj Yfj]Yk

GHJZZ:7cbHJWh:8YHJ]`g`

7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]lm	@cWUh]cb	

7 ci fgY 8 YHJ]`g 7 fYX]hDc]bhg * Gi a a UfmcZh\Y 7 ci fgY

Gi VYWh5

G YW faY 'h hl `` c8`

Gi W. Y`Ya Ybhgʻa UmiVY`Wcbg]XYfYX`UWfcggʻX]ZZYfYbhihYI hgʻUbX`]bʻfY`Uh]cbʻhcʻmci fʻck bʻk cf_ʻ]bʻdfc[fYggž dfcj]X]b['UʻWca dUfUV`Y'j]Yk 'cZh\Y'dcYh]WgʻcZWcbhYa dcfUfmZ]Wh]cb"'K Y`k]``VY`ZcW'g]b['cb`\ck 'h\YgY dcYh]WY`Ya Ybhgʻk cf_'hc[Yh\YfžfYZYWh]b['h\Y'cj YfU```Wci fgY`Ya d\Ug]gʻcbʻh\Y`VfcUXYf`Wca dcg]h]cbʻcZh\Y bcj Y`"

Mci 'UfY'Yl dYWhYX'hc'fYUX'U``cZh\Y'gYhihYl hgž'UbX'fYUX'h\Ya 'WcgY`m''H\YfY']g'Ub'cj YfhUhhYa dhik]h\]b 'h\]g Wci fgY'hc'YbWci fU[Y'mci 'hc'Vi]'X'`]b_g'VYhk YYb'Wf]h]WU``UbX'WYUh]j Y'dfUWfWYUbX'hc'gYY'h\YgY'hk c UWfj]h]Yg'Ug'a i hi U``m]bZcfa Uh]j Y'''7 f]h]WU``]bei]fmik]```VY'h\i g'UWWca dUb]YX'VmfYZYWf]cb'cb'mci f'ck b WfYUh]j Y'dfUWfWY'''Ea_ W] Wk cgWef[a` e fZSfi Wi [^\Ua` e[VWdS` V V[eUgee fZWdWadW[U'gVW K \UhiUfY'h\Y gi ghU]b]b['dcYh]W'''Uk g'''cZh\Y'gYhihYl hg3'K \Yb'Xc'h\YgY'VYWca Y'UddUfYbh3'<ck 'XcYg'h\Y'i gY'cZZcfa U' XYj]Wrg'W\Ub[Y'cf'XYj Y`cd'cj Yf'h\Y'Wci fgY'cZh\Y'Vcc_3'<ck 'Xc'gi W\'YYa Ybhg'gi ddcfhih\Y'WcfY']XYU'cf Yl dYf]YbW''cZU'Vcc_3'C b'U'dfUWf]WU``Yj Y'`]b'fY[UfXg'hc'mci f'ck b'k cf_'k Y'k]``VY'Ug_]b['ei Ygh]cbg'gi W\ Ug.'<ck 'UfY'h\YgY'dcYh]WY'Ya Ybhg']bgffi Wf] Y'Zcf'mci f'ck b'WfYUh]j Y'k cf_3'<ck 'Xc'h\YgY'k cf_g W\U``Yb[Y'UbX']bgd]fY'Yl dYf]a YbhUh]cb'k]h\]b'mci f'ck b'dfc'YWfg3'K \Uh\UddYbg'k \Yb'mci 'i gY'h\YgY k cf_g W\U``Yb[Y'UbX']bgd]fY'Yl dYf]a YbhUh]cb'k]h\]b'mci f'ck b'dfc'YWfg3'K \Uh\UddYbg'k \Yb'mci 'i gY'h\YgY k cf_g Ub'nci 'i gY'h\YgY' hygY k cf_g Ub'nci 'i gY'h\YgY' hygY k cf_g Ub'nci 'i gY'h\YgY' hygY' hygY' hygY' hygY k cf_g'Ug'a cXY'g'Zcf'mci 'ck b'k f]h]b['a'K \UhiXcYg']ha YUb'hc'dUm\ca U[Y'hc'WffU]b'gmi]gh]WffU]hg3'K \Uh Wb'mci 'Vcffck 3'K \UhiWb'mci 'XYj Y'cd3'K \Uhi]g'h\Y'fY'Uh]cbg\]bcj Uhjcb3

♠ 'h\ Y '7 h J`ž'	i cWlhchU`aYflYa'c	7`YWfi fYa'k Y'k 1``'cc	'Uh'h\Y'i Uf]ci a'dU	· %

5ggYgga Ybh% F YgYUfW 9ggUm

GhUfh XUhY.

8YHJ]`g. `&\$\$\$ k cfXgž'Hi fb]h]b gi Va]gg]cbž'ZYYXVUW_dfcj]XYX'j]U'Hi fb]h]b

Hi fb]h]b gYh]b[. 'H\]g 'Ugg][ba Ybh]g 'gi Va]hhYX 'h\fci [\ 'Hi fb]h]b 'UbX 'gh XYbhg 'Xc 'bchgYY 'Hi fb]h]b g]a]'Uf]hmfYdcfhg"

5ggYgga Ybh& 'A U'cf'7fYUhjj Y'K cf_

GhUfh XUhY.

8YHJ]`g. '`\$\$\$`k cfXg"`:]bU``5ggYgga YbH'`Hi fb]hJb`gi Va]gg]cbž`gi a a UhJj Y`ZYYXVUW_`j]U`Hi fb]hJb"

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

H\]g`UggYgga YbhfYei]fYg`mci `hc`gi Va]hh\Y`cdYb]b[`W\UdhYfg`cZU`bcj Y`ži d`hc'` \$\$\$`k cfXg"`±i]g YI dYW\YX`h\Uhih\]g`d]YW\`cZk cf_k]```VY`U`Z fh\Yf`XYj Y`cda YbhcZh\Y`k f]h]b[`h\Uhik Ug`gi Va]hh\X`hc`h\Y WUgg`Zcf`[fci d`ZYYXVUW_"

Mci k] "VY UggYggYX cb h\Y Zc "ck]b[...

• : `ck #YUX]b['Wc\YfYbW'. 'ffUbg]h]cbg'VYhk YYb 'gYbhYbW'g'UbX'dUfU[fUd\g'-a cj Ya Ybhk]h\]b 'h\Y

gh XYbhgi Va]gg]cb" A ccXY 6 c['gi Va]gg]cbž ZYYXVUW_ j]U Hi fb]h]b"

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

9 UW. 'ghi XYbhik]```VY 'gW.YXi `YX 'ho 'gi Va]hUb YUf`mXfUZhcZh\Y]f`WfYUhjj Y 'k f]hjb['dfc YWhire 'h\Y 'WUgg" H\YgY 'dfYgYbhUhjcbg 'Zcfa 'h\Y 'VUg]g`cZh\Y 'k f]hjb['k cf_g\cd"'5g'k f]hYfg'mci 'k]```VY YI dYWhYX 'ho 'gi Va]hU ZcW gYX'd]YW' cZWfYUhjj Y 'k cf_ff]WhjcbŁ'ho 'h\Y '[fci d 'Zcf'Wca a Ybh' '5g'Wf]hj\Wj`mci 'k]```VY YI dYWhYX 'ho 'fYUX h\YgY 'a Ubi gWf]dhg'h\cfci [\`mUbX'dfcj]XY'k f]hhYbžWcbghi Whj Y 'ZYYXVUW_cb'h\Y 'k cf_cZmci f'dYYfg"'h\]g ZYYXVUW_Wcbghjh Yg'h\]g DYYf': YYXVUW_5ggYga Ybh''K \YfY'dcgg]V`Y'mci 'k]```VY YI dYWhYXž']b'mci f ZYYXVUW_ž'ho 'fY`UhY'mci f'X]gW gg]cb'cZh\]g 'WfYUhjj Y 'k cf_hc'h\Y'df]bWjd`Yg'fU]gYX']b'h\Y'gYhhYI hg'UbX `YWhi fYg"'H\Y'ZYYXVUW_dfcWfgg'Zcf'h\]g'dUfhcZh\Y'UggYgga YbhcWW fg']b'Zci f'ghU[Yg. '%Chi XYbhg'dfcj]XY k f]hhYb'ZYYXVUW_cb'h\Y'k cf_cZh\Y]f'dYYfg'&L'H\]g'k f]hhYb'ZYYXVUW_jg Z fh\Yf'XYj Y`cdYX']b'[fci d X]gW gg]cb'Zcfa Uh'

Gi Va]gg]cb bchYg.DYYf ZYYXVUW_bYYXg hc VY dcghYX YUW k YY_"

Hi fb]hb gYhb[. H\]g]g bchU Hi fb]hb Ugg][ba Ybh

FYgci fWfg

DfYgWf]VYX F Ygci fWYg

F Yei]fYX HYI hg.

.

>Ybb]ZYf'9[Ubł 3 H[e[f Xta_ fZW9 aa` E cgSVž'7 cfgU]f'&\$\%%

8YVcfU\'@Yj mž'Ei [_ _ [`Y: a_W: UVYf'UbX': UVYf'&\$\%

 $FUWXY^{7}ig_{z}FdS^{e}[fz:UVYf'UbX:UVYf'&$%+$

FYWca a YbXYX FYgci fWyg

D`YUgY gYY A ccX`Y

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

.

 $H\ [g'Wci\ fgY']g'fci\ h]bY`mfYj\]gYX'Zcf']a\ dfcj\ Ya\ Ybh'':\ YYXVUW_']g'k\ Y`Wca\ YX'h\ fci\ [\ \ 'a\ mYl\ dYf]YbW'žUbX']bUWhYX'cb']b'h\ Y'Z hi\ fY'XYj\ Y`cda\ YbhcZh\ Y'Wci\ fgY''$

Gi Va]gg]cb cZ5ggYgga YbhHUg_g

Gi Va]gg]cb cZ5ggYgga YbhHUg_g

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

Image: Ybwb: bh/f'u'dfcv'ya k \yb'uhh/a dh/b['hc'gi va]hmci f'ugg][ba Ybhh\fci [\ 'Hi fb]h/bž'd'YugY

HY'Yd\cbY'9| h/fbu''Gi ddcfhcb'-',) '' ' ' %cf'Ya U] 'h\Ya 'cb'Y! h/fbu'h/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" Image: UfY'i bUV'Y'hc'gi va]hmci f'Ugg][ba YbhXi Y'hc'U'ZJi 'hk]h\ 'Hi fb]h/b'mci 'a UmUdd'mZcf'Ub'Y! h/bg]cbž'Vi hmci
a i ghfYhJ]b'mci f'h/W_Yhbi a VYf'Zfca '9! h/fbU''Gi ddcfhfU'cb['k]h\ 'Ubmch\Yf'YY] UbhXcW a YbhgŁ'hc
]bWi XY'Ug'Yj]XYbW' 'hc'gi ddcfhmci f'Y! h/bg]cb'Udd']WJh/cb" Image: Ya U]''9! h/fbU''Gi ddcfhmci 'k]'`
Ui hca Uh/WJ'mfYW'] Y'U'h/W_Yhbi a VYfž'Vi h]Zmci 'hY'Yd\cbY'mci 'k]'`'bYYX'hc'gdYW/ZWJ'`mUg_'Zcf'cbY''
Hi fb]h/b'U'gc'dfcj]XYg'i dXUh/g'cb'h\Y]f'gmghYa 'ghUh' g'cb'Hk]hYf"

; YbYfU``mž'UggYgga YbhiHug_g'a i ghVY'gi Va]hhYX'Y`YVWfcb]\W)``mj]U'Y]h\Yf'Hi fb]hjb'cf'U'A ccX`Y Ugg][ba Ybh'' =b']bgHJb\W'g'k \YfY'h\]g']g'bchdcgg]V`Yž']hk]``'VY'gHJhYX'cb'mci f'\\circ i fgY'g'A ccX`Y'g]hY'k]h\ U`hYfbUhj Y'gi Va]gg]cb'XYHJ]`g''

cfi]bZcfa Uh]cbicbi\ckihcigi Va]hUgg][ba Ybhgicbi]bYij]UiA ccXiY.i\hdg.#gh XYbh'i bgk "YXi "Ui #\ck! qi Va]hUgq][ba Ybha ccXiY

5 WUXYa | 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"'\lefi\Wb'hU_Y`a Ubm Zcfa gžZfca `XY`]VYfUhY`W\YUh]b['hc`UVW]XYbhU`mWcdm]b['Zfca `U`gci f\W' k]h\ci hUW_bck `YX[Ya Ybh'

IBGK [fcidgdu[]Uf]ga]bhch\YZc``ck]b[WUhY[cf]Yg.

7 cdm]b[.'i g]b['h\Y'gUa Y'cf'j Yfmg]a]`Uf'k cfXg'hc'h\Y'cf][]bU`h\I hcf']XYU'k]h\ci hUW_bck `YX[]b['h\Y gci fW'cf'i g]b['ei chUh]cb'a Uf_g"'H\]g'U'gc'Udd`]Yg'hc']a U[Ygž'Ufh'UbX'XYg][b'dfc YWhgž'Ug'k Y``'Ug dfYgYbhUh]cbg'k \YfY'gca YcbY'dfYgYbhg'Ubch\Yf'g']XYUg'cf'k cfXg'k]h\ci h'WfYX]h'

⇒ Uddfcdf]UhY 'dUfUd\fUg]b[.'7\Ub[]b['U'ZYk'k cfXg'UbX'd\fUgYg'k\]Y a cghmfYhJ]b]b['h\Y'cf][]bU`gffi WhifY 'UbX#cf'dfc[fYgg]cb'cZ]XYUg'cZh\Y'cf][]bU`ž'UbX']bZcfa UhJcb'k]h\ci hUW_bck `YX[Ya Ybh''H\]g'U`gcUdd`]Yg']b'dfYgYbhUhJcbg'k\YfY'gca YcbY'dUfUd\fUgYg'Ubch\Yf'g']XYUg'cf'k cfXg'k]h\ci hWfYX]h'UbX'hc

5 WUXYa]W = b Zcfa Uh cb ·

: cf`YggYbhJU``gh XYbh`]bZcfa UhJcb`fY`UhJb['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'GUZYhm'dc`]W[Yg/
- YI Ua]bUhcb dfcWXi fYg/
- gdYWJU``Wcbg]XYfUhJcb`]b`h\Y`Yj YbhcZ]``bYgg`cf`a]gUXj Ybhi fY/
- gh XYbhYei]lmUbX X]gUV]`]lm/
- UbX'ch\Yf'YggYbhJU`'UWUXYa]W]bZcfa UhJcbž'gYY

\hdg.#k k k "Uffg"i bgk "YXi "Ui #W ffYbhgh XYbhg#UWJXYa]W]bZcfa Uf]cb#dfchcWc`g![i]XY`]bYg#

.

a U[Y'7fYX]h

\hd.##/m/\cx[_]bg\\mathrealign{array}{c} \hd.##/m/\cx[_]bg\\cx[_]bg

7F = 7CG

7F = 7CG Dfcj]XYf 7cXY. \$\$\$-,;