

ARTS4268

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

7ci fgY⁻Cj Yfj]Yk

GHJZZ:7cbHJWhi8YHJ]`g

7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]hm	@cWUhjcb	D\cbY
7`Ui X]U'HUnfY]hYf	WMUnfY]hYf4 i bgk "YXi "Ui	VmYa U]`WcbHJWh	A 6 ° %* &	-',)'*-%

GWXcc`7cbHJWhi±bZcfa Uhjcb

GWkcc``cZGcWJU``GWJYbWYg

Fcca '%) -

A cfj Yb 6fck b 7 &\$

Ya U]`. 'gcgg4 i bgk "YXi "Ui

d\cbY. '\$&'-',) '% \$+

7ci fgY 8YHJ] g

7 fYX]hDc]bhg *

Gi a a UfmcZh\Y'7ci fgY

 $BchY. H\ [g']g'U'\% I C7'WcifgY''Mcik]``Ybfc``]b'* I C7']b'YUWX'cZhk c'giWW'gg]j Y'hYfa g'k]h\ 'U'fYgi`h fYdcfhYX'Vm'U'g]b[`Y'[fUXY'Uh'h\Y'YbX'cZh\Y'gYWcbX'* I C7'WcifgY''$

 $H\grigorder{H}\$

7 ci fgY @YUfb]b[Ci hMca Yg

 $\%'' 5 dd mWf hWU`h b_b 'UbX'UbU`mhWq_]`q$

&" 9ZYWIJ Y`mXYd`cmU'dUffJW `Uf'h\Ycfmcf'a Yh\cXc`c[]WJ`'UddfcUW\

' "8 Yg][b'UbX'gi gHJ]b'Ub'Uf[i a Ybhzcf'dc]bhcZj]Yk

("→YYbr|ZmUbX'Udd'mrh\Y'Yh\]WU``fYei]fYa Ybrg'UbX`fYgdcbg]V]`]r]Yg'cZfYgYUfW\Yfg'`

HYUWX]b[GhfUhY[]Yg

GYa]bUfg`k]``VY`WcbXi WfX`Vmh\Y`WccfX]bUhcf`k]h\`]bdi hZfca `ch\Yf`gdYW]U`]ghhYUW\]b[`ghUZZhc`[i]XYghg`h\fci [\h\Y`dfcWfgg`cZWcbXi Wf]b[`fYgYUfW\`Uh\cbci fg``Yj Y`žk cf_]b[`k]h\`U`gi dYfj]gcf`UbXd`Ubb]b[`UbX`YI YW h]b[`Ub`]bXYdYbXYbhfYgYUfW\`dfc`YWf

@]VfUfmfYgcifWgZcf`\cbcifg`ghiXYbhg`k]``VY`YId`U]bYX`Vmh\Y`cihfYUW\``]VfUf]Ub`hc`Ugg]ghighiXYbhg`k]h\fYgYUfW\]b[`h\Y]f`h\Yg]g`hcd]W

5ggYgga Ybh

8YHJ]`g`cZUggYgga Ybh'HJg_g

5```UggYgga Ybhgʻg\ci `X'VY.

@Yb[h. (\$\$\$ k cfXg

8YHJ]`g.

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

H\Y'h\]fX'UbX'Z|bU``UggYgga YbhitUg_`Zcf'h\]g`Wci fgY']g'h\Y'fYgYUfW\'dUdYf"'\\]ih\]g'dUdYfž'mci 'a i gh UXXfYgg'h\Y'Zc``ck]b['ih\fYY'ei Ygh]cbgž'k\]W\'UfY'h\Y'gUa Y'h\fYY'hcd]Wg'h\Uhh\Y'[i YghdfYgYbhYfg'\Uj Y UXXfYggYX'YUW\'k\YY_'h\fci [\ci hih\Y'gYa YghYf.

- %" K \UhiX]g\W\d`]bUfmiUbX`g\W\c`\Uf`milfUX]h\cbg`#dYfgdY\W\j Yg`#gYbg]\V]`]h\Yg`Xc`mci \Vf]b[\hc\h\Y fYgY\Uf\W\h\Uhimci \k]\\\`Xc\h\]g\m\Uf3\
- & `` < ck `` Xc `` th YgY `` X]gW]d`]bUfmUbX ``gWX c` `Uf`milfUX]t]cbg` #dYfgdYWf]j Yg` #gYbg]V]`]t]Yg` UZZYWtith Y`fYgYUfWX th Uhmci ``UfY `` Xc]b[3

. ..

5 hm/b XUbVW F Yei]fYa Ybhg

 $\hbox{Ghi XYbhg'UfY'ghfcb[`mYbWci fU[YX'hc'UhhYbX'U```WUggYg'UbX'fYj]Yk ``YWhi fY'fYWcfX]b[g''] } \\$

7ci fgY GWX YXi `Y

J]Yk 'WUgg'h]a YHUV'Y

Fygci fWyg

DfYgWf]VYX F Ygci fWYg

 $\label{eq:K-YY_m} $$K YY_m] bglfi $$Wfcbg'UbX'fYgci fWfg'k]$$``VY'Uj U]`UV'Y'cb'A ccX'Y'' $$$

FYWca a YbXYX FYgci fWYg

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

Gi Va]gg]cb cZ5ggYgga YbhHUg_g

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

Image: Ybwei bhyfu'dfcv'ya k \yb'uhhya dhjb['hc'gi va]hmci f'Ugg][ba Ybhh\fci [\ 'Hi fb]h]bž'd'YUgY

Hy'Yd\cby'9| hy'fbu''Gi ddcfhcb'-',) '' ' ' %cf'Ya U]''h\Ya 'cb'Y! hy'fbu'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'mYUft'''=Z'mci
UfY'i bUV'Y'hc'gi va]hmci f'Ugg][ba YbhXi Y'hc'U'ZJi 'hk]h\ 'Hi fb]h]b'mci 'a Um'Udd'mZcf'Ub'Y! hy'bg]cbž'Vi hmci
a i ghfYhJ]b'mci f'h]W_Yhbi a VYf'Zfca '9! hy'fbU''Gi ddcfhfU'cb['k]h\ 'Ubmch\Yf'fy'Yj UbhXcW a Ybhgt'hc
]bWi XY'Ug'Yj]XYbW' hc'gi ddcfhmci f'Y! hy'bg]cb'Udd']WUh]cb"'=Zmci 'Ya U]''9! hy'fbU''Gi ddcfhmci 'k]'`
Ui hca Uh]WJ'`mfYW']j Y'U'h]W_Yhbi a VYfž'Vi h]Zmci 'hY'Yd\cbY'mci 'k]``bYYX'hc'gdYW]Z]WJ'`mUg_'Zcf'cbY''
Hi fb]h]b'U'gc'dfcj]XYg'i dXUhy'g'cb'h\Y]f'gmghYa 'ghUh' g'cb'Hk]hyf''

; YbYfU`mž'UggYgga YbhiHug_g'a i ghVY'gi Va]hhYX'Y`YVWfcb]\WJ``mij]U'Y]h\Yf'Hi fb]h]b'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`hYfbUh]j Y'gi Va]gg]cb'XYHJ]`g"

cfi]bZcfa Uhjcbicbi\ckihcigi Va]hUgg][ba Ybhgicbi]bYij]UiA ccXiY.i\hdg.#gh XYbhi bgk "YXi "Ui #\ck! gi Va]hUgg][ba Ybha ccXiY

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

D`U[]Uf]ga i]gii g]b[ih\Yik cfXgicfi]XYUgicZch\YfgiUbXidfYgYbh]b[ih\Ya iUgimci fick b"i=hWJbihU_Yia Ubm Zcfa gžZfca iXYi]VYfUhYiWXYUh]b[ihciUWW]XYbhU`mWcdm]b[iZfca iUigci fWYik]h\ci hiUW_bck iYX[Ya Ybh'

IBGK [fcidg'd'U[]Uf]ga]bhc'h\Y'Zc``ck]b['WUhY[cf]Yg.

- i bXYfgfUbX mci f'f][\hg'UbX'fYgdcbg]V]`]hJYg'Ug'U'gh XYbhUhl BGK
- VY`Uk UfY`cZd`U[]Uf]ga ž`Wcdmf][\hz'l BGK `Gh XYbh7cXY`cZ7cbXi WhUbX`5VWWdhUV`Y`l gY`cZ I BGK `=\forall H`F Ygci f\W\g`Dc`]\m\m
- VY 'Uk UfY 'cZh\Y 'ghUbXUfXg 'cZVY\Uj]ci f'Yl dYWYX 'cZYj YfmcbY ']b 'h\Y 'l BGK 'Wca a i b]hm
- `cWUHY 'gYfj]WYg'UbX ']bZcfa UH]cb'UVci hI BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZh\YgY'UfYUg'k]``VY'ZJa]`]Uf'hc'mci žch\Yfg'k]``VY'bYk"'; U]b]b['U'gc`]X'i bXYfgHJbX]b['cZU``h\YfY`UhYX'UgdYWhg'cZ9@&9'k]``\Y`d'mci 'a U_Y'h\Y'a cghicZmci f'ghi X]Yg'Uh'l BGK "'\\hd.##gi V'YWfi |XYg"`]VfUfm'i bgk "YXi "Ui #\`]qY#JVci hY`]qY