

ARTS4268

 $A \ Y \ h \ c \ X c \ c \ [\] \ Y \ g \] \ b \ h \ Y \ G \ c \ W \ U \ G \ W \ B \ i \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ b \ Y \ g \ h \ c \ h \ y \ g \ h \ c \ h \ y \ g \ h \ c \ h \ y \ g \ h \ c \ h \ g \ h \ c \ h \ g \ h \ c \ h \ g \ h \ c \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g \ h \ g$

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GHJZZ7cbHJWh8YHJ]`g

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GW\cc``cZGcWJU``GWJYbWYg

7ci fgY'8YW]`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\]g']g'U'WcfY'Wci fgY'Zcf'<cbci fg'WUbX]XUHYg']b'h\Y'GW\cc``cZGcW]U``GW]YbWrg'UbX'h\Y'a U]b'ZcW'g'k]```VY h\Y'ei Ygh]cb'cZa Yh\cXc`c[m''9UW\gYa]bUf'k]````cc_'UhX]ZZYfYbh'UddfcUW\Yg'hc'fYgYUfW\'UWfcgg'h\Y'gi V!X]gW]d']bYg'UbX'k]```YI d'cfY'k\Uhk Y'a][\h\W\``h\Y''gc'k\Uhf'cZU'dUfh]W``Uf'a Yh\cXc`c[mg'UbU`mf]WU``Yj YfU[Y''K\mXc'h\Y'GcW]U``GW]YbWrg'VfYU_']bhc'a mf]UXž'Wca dYh]b['a Yh\cXc`c[]Yg3'7 Ub'k Y'XYgWf]VY ci f'a Yh\cXc`c[]Yg'Ug'gW]Ybh]Z[Wz'UbX']Zbchz'h\Yb'\ck 'Xc'k Y'VYghgYW'fY'U'bch]cb'cZUWW'fUWmUbX i gYZ\`bYgg3'<ck 'XcYg'ci f'i bXYfghUbX]b['cZYj]XYbW''UWh'U`mW\Ub[Y'ci f'fYgYUfW\'a Yh\cXg'Ug'k Y``'Ug h\Y'ci h\Wca Yg'UbX'WcbWi g]cbg'h\Uhk Y'a][\hfYUW\3

7 ci fgY @YUfb]b[Ci hWca Yg

 $\%'' 5 dd mWf hWU'h b_b [UbX'UbU'mhWq_] g$

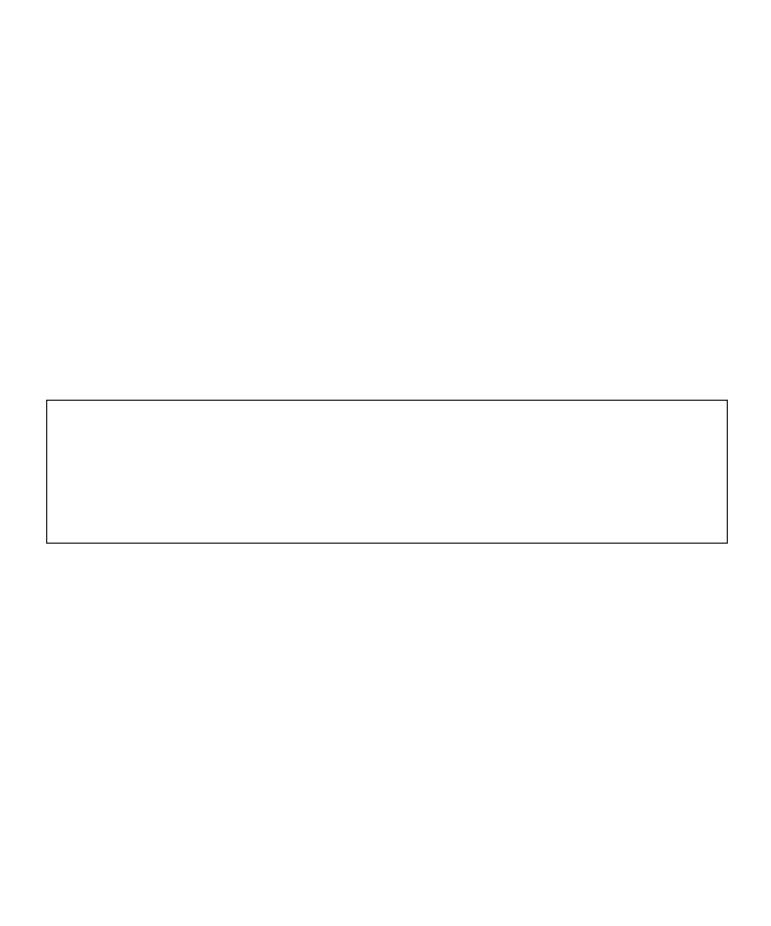
&" 9ZYWIJ Y`mXYd`cmU'dUffJW `Uf'h\Ycfmcf'a Yh\cXc`c[]WU``UddfcUW\

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

("→XYbhZmUbX'Udd`mih\Y'Yh\]WU`fYei]fYa Ybhg'UbX'fYqdcbg]V]`]hJYg'cZfYgYUfW\Yfg

HYUWX]b[GhfUhY[]Yg

GYa]bUfgik]``VY'WcbXi WhX'Vmh\Y'WccfX]bUhcfik]h\i]bdi hiZfca ich\YfigdYWJU`]ghh



 $\label{thm:condition} $$ Uddfcdf]UhY`mfYZYfYbWYX`]b`UWWcfXUbWY`k]h`h`Y`EUZaa^aXEaU[S^EU[W UWe D WWWW U[`Y9g[VW`]b_YXVY`ck žk]h`U`fYZYfYbWY`]ghdfYgYbhYX`Uhhh\Y`YbX`cZh\Y`dUdYf"`H\Y`k cfX``]a]h]g`YIWig]j Y`cZh\YV]V`]c[fUd\mVi h]bWi g]j Y`cZYj Yfmh`]b[`Y`gY"`Mci `k]````cgY`) I `dYf`%$$`k cfXg`cj Yf`h\Y`%$$`k cfX`]a]h'H\Y`ghUbXUfXg`U[U]bghk \]W\Th]g`UggYgga Ybhk]```VY`Yj U`i UhYX`UfY`]b`h\Y`fi Vf]\W`Uj U]`UV`Y`cb`A ccX`Y"$

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 VYfZ'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 Uh]cbicbi\ckihcigi Va]hUgg][ba Ybhgicbi]bYij]UiA ccXiY.i\hdg.#gh XYbh'i 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 bXYfgHJbX'mci f'f][\hg'UbX'fYgdcbg]V]`]h]Yg'Ug'U'gh XYbh'Uhil BGK

5 WUXYa]W + DZcfa Uhjcb

: cf'YggYbhJU`gh XYbh]bZcfa UhJcb fY`UhJb[hc.

- fYei YghgʻZcfʻYl hYbg]cb/
- `UhY 'gi Va]gg]cbg '[i]XY`]bYg/
- fYj]Yk 'cZa Uf_g/
- I BGK < YU`h\ UbX GUZYmdc`]W[Yg/
- YI Ua]bUh]cb dfcW/Xi fYg/
- gdYWJU``Wcbg]XYfUHjcb']b'H\Y'Yj YbhcZ]``bYgg'cf'a]gUXj Ybh fY/
- gh XYbhYei]hmUbX'X]gUV]`]hm/
- UbX'ch\Yf'YggYbhJU`'UWUXYa]W]bZcfa UhJcbž'gYY