# **PTRL6009**

K Y``'8f]``]b[ '9ei ]da Ybh'UbX'CdYfUh]cbg

HYfa 'C bY''##'&\$&%

# 7ci fgY'Cj Yfj ]Yk

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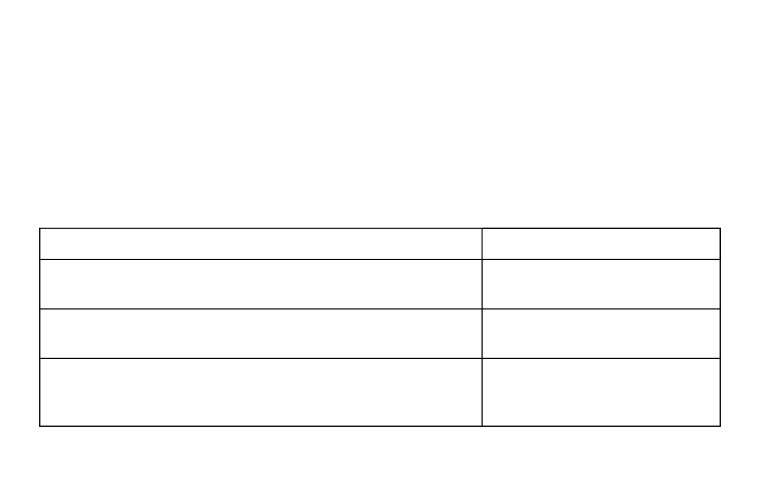
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## 5ggYgga Ybh

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GhUfhXUhY. Bch5dd`]WUV`Y

**8 YHJ]`g.** ( `]bX]j ]Xi U``Ugg][ ba Ybhg`Xi Y`Uhh\Y`YbX`cZK YY\_g`' ž) ž+ž-`fYgdYWfj Y`m'Hi hcf]U``Yl YfWjgYg`Xi Y k YY\_`m'

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

 $5gg\%\%j \ Yfg`Dck \ Yf`GmghYa \ `UbX`7]fW`Uh]cb`GmghYa \ /5gg\&`Wcj \ Yfg`< c]gh]b[ \ `GmghYa \ /5gg' \ `Wcj \ Yfg`8f]``Ghf]b[ \ /5gg( \ `Wcj \ Yfg`F \ chUfm8f]``6]hg"$ 

 $\label{eq:hammer_state} $HY'gdYWJZWUh]cbg'UbX'a\ Uf\_]b[\ 'fi\ Vf]Wg'k\ ]``VY'dfcj\ ]XYX'Uh'h\Y'h]a\ Y'cZh\Y'Ugg][\ ba\ Ybh'fY`YUgY''$ 

Gi Va ]gg]cb bchYg. Cb`]bY A ccX`Y gi Va ]gg]cb

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

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GhUfhXUhY. Bch5dd`]WUV`Y

@Yb[h\. cbY \cif

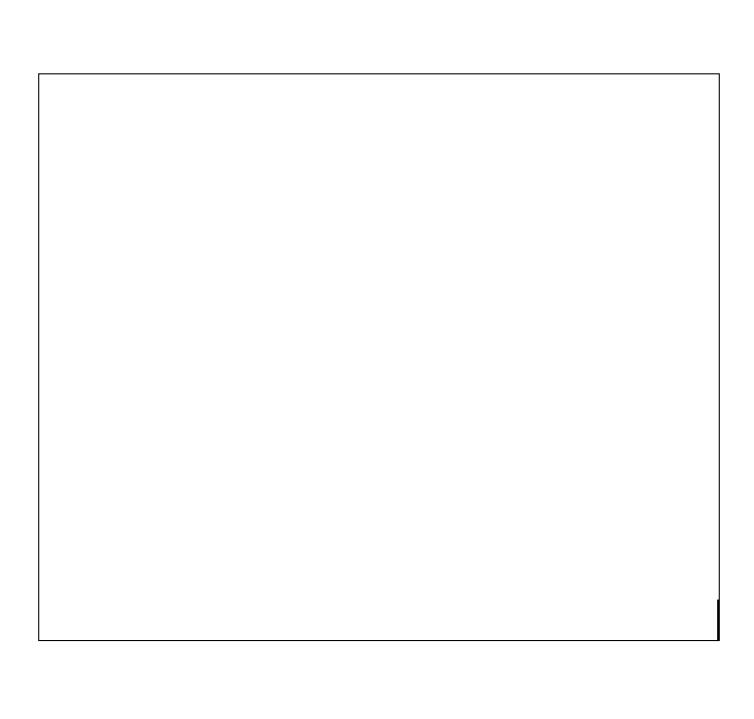
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Gi Va ]gg]cb bchYg. Cb`]bY A ccX`Y gi Va ]gg]cb

Hi fb]hjb gYhjb[. H\]g ]g bchU Hi fb]hjb Ugg][ ba Ybh



# FYgci fWfg

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Gi ddcfha UhYf]U`Zcf'h\]g`Wci fgY`]bWi X]b[ žk\YbYj Yf`Uj U]`UV`Yž'Wcd]Yg`cZ`YWh fY`bchYgž`YWh fY`g`]XYgž fYWca a YbXYX`fYUX]b[ gžYhW'WJb`VY`Zci bX`cb`A ccX`Y" H\Y``YWh fY`bchYg#g`]XYg`a UmVY`j ]Yk YX`UbX`Xck b`cUXYX`Zfca `h\Y`I BGK!A ccX`Y.\hd.##a ccX`Y"hY`h'i bgk "YXi "Ui #

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• 5dd`]YX'8f]``]b[ '9b[ ]bYYf]b[ '5H'6ci f[ cmbY'>fž'A 9'7\YbYj Yfhž'??'A ]``\Y]a 'UbX': G'Mci b[ '>f" GD9'HYI hVcc\_'GYf]Ygž'J c`''&ž'&bX'9X]hJcb'f% - %£

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K Y YbWci fU[Y'mci'hc'fYhJ]b'U'WcdmcZYj YfmUgg][ba Ybhgi Va]hYX'Zcf'UggYgga YbhZcf'mci f'ck b'fYWcfX Y]hYf']b'YUfXWcdmcf'Y'YWfcb]WZcfa "

5 "UggYgga Ybhy a i gh\Uj Y Ub UggYgga YbhWcj Yf g\YYhUHUW\YX"

### 7ci fgY Wca d`Yhcb

7 ci fgY'Wca d`Yhjcb'fYei ]fYg'gi Va ]gg]cb'cZU```UggYgga Ybh]hYa g": U]`i fY'hc'gi Va ]h'U```UggYgga Ybh]hYa g a UmfYgi `h']b'h\Y'Uk UfX'cZUb'I bgUhjgZUWcfm: U]`i fY'fI : Ł'[ fUXY'Zcf'h\Y'7 ci fgY'i b`Ygg'gdYWjU` Wcbg]XYfUhjcb'\Ug'VYYb'gi Va ]h\YX'UbX'Uddfcj YX"'D`YUgY'bchYž'U'Wca dYhYbWm\i fX`Y'cZ) \$i ']g'Udd`]YX'hc h\Y'Z|bU``UggYgga Ybh'

# @UhY Gi Va ]gg]cb cZUb 5gg][ ba Ybh

: i ```a Uf\_g`Zcf`Ub`Ugg][ ba Ybh'UfY`cb`mdcgg]V`Y`k \Yb`Ub`Ugg][ ba Ybh']g`fYV\Y]j YX`Vmh\Y`Xi Y`XUhY''`

K Y'i bXYfghUbX'h\UhiUhih]a Yg'mci 'a Umbch'VY'UV'Y'hc'gi Va ]hUb'Ugg][ ba Ybhicb'h]a Yž'UbX'h\Y'GW\cc``k ]`` UWWta a cXUhY'UbmZU]f'UbX'fYUgcbUV'Y'YI hYbg]cb"K Y'k ci `X'fYWta a YbX'mci 'fYj ]Yk 'h\Y'I BGK 'GdYW]U` 7 cbg]XYfUh]cb'[i]XY`]bYg'—'gYY'gYWf]cb'VY'ck "

@UhY`gi Va ]gg]cb`k ]```bch'VY`UWWYdhYX`UbX`k ]```VY`Wcbg]XYfYX`Ug`bc`gi Va ]gg]cb"

## GdYWJU`7cbg]XYfUhJcb

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- DfYj Ybhmci Zfca Wca d`Yhlb[ 'U'Wci fgY fYei ]fYa Ybh
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- G][b]ZJWJbhmUZZYWhmci f'dYfZcfa UbWY']b'UggYggUV'Y'k cf\_ž'VY']h'U'Zcfa U`'YbX!cZ!gYa YghYf Yl Ua ]bUh]cbž'U'WUgg'hYghž'U'`UVcfUhcfmihYghž'U'gYa ]bUf'dfYgYbhUh]cb'cf'Ubmch\Yf'Zcfa 'cZ UgqYgga Ybh

K Y'Ug\_'h\Uh'mci 'd'YUgY'WcbHJWh\Y'7ci fgY'7cbj Ybcf']a a YX]UhY`mcbW'mci '\Uj Y'Wca d'YhYX'h\Y'gdYWJU' Wcbg]XYfUhJcb'Udd`]WJhJcbžbc'`UhYf'h\Ub'cbY'k YY\_'Zfca 'gi Va ]gg]cb"



- I BGK '@YUfb]b[ '7YblfY'! '<u>k k k "'Wi bgk "YXi "Ui</u>
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9ei ]huv`Y`@Yufb]b[ `GYfj ]WYg`U]a g`hc`dfcj ]XY`U```gh XYbhg`k ]h\`U`ZYYY`UbX`WcbZ]XYbh]U``gYfj ]WY`h\Uh dfcj ]XYg`dfUWh]WU``gi ddcfhihc`Ybgi fY`h\Uh'mci f`\YU`h\`WcbX]h]cb`XcYgbfhUXj YfgY`mUZZYWhimci f`gh X]Yg"`\hdg.##gh XYbh'i bgk "YXi "Ui #Y`g

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

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⊋mci 'bYYX'gca Y'UXX]h]cbU``gi ddcfhk]h\ 'mci f`k f]h]b[ 'g\_]``gž'd`YUgY'WcbhUWh\Y'@YUfb]b[ '7 YbhfY'cf'j]Yk gca Y'cZh\Y'fYgci fWg'cb'h\Y]f`k YVg]hY. 'k k k "`Wi bgk "YXi "Ui "'H\Y'@YUfb]b[ '7 YbhfY']g'XYg][ bYX'hc'\Y`d mci ']a dfcj Y'mci f'UWUXYa]Wk f]h]b[ 'UbX'Wca a i b]WWh]cb'g\_]``g"'Gca Y'ghi XYbhg'i gY'h\Y'7 YbhfY'gYfj]WYg VYWUi gY'h\YmUfY'Z]bX]b[ 'h\Y]f'Ugg][ ba Ybhg'U'W\U``Yb[ Yžch\Yfg'VYWUi gY'h\Ymk Ubhhc']a dfcj Y'Ub'U`fYUXm gi WWggZ ``UWUXYa]WdYfZcfa UbW\"

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# 7 ci fgY F Ygi `hg

: cf`XYHJ]`g`cb`l BGK 'UggYgga Ybh'dc`]Whž'd`YUgY`j ]g]h`<u>k k k "gh XYbh'i bgk "YXi "Ui #UggYgga Ybh</u>

 $\pm 0 \cdot gca \ Y \cdot ]bgHUbWYg'mci \ f'Z]bU``Wci \ fgY'fYgi `hia \ UmVY'k \ ]h\ Y`X'UbX'bchfY`YUgYX'cb'h\Y'I \ BGK 'd`UbbYX'XUhY'' \ H\ ]g']g']bX]WUhYX'VmU'Wci \ fgY'[ \ fUXY'fYgi `hicZY]h\Yf.$ 

- @9'-']bX]\\Uh\g`mci'\Uj\Ybch\\cappaca d`Yh\X`cbY`cf'a cfY']h\ag'cZUgg\gga Ybh\cf
- K 8 '- ']bX]WUHYg'H\YfY']g'Ub']ggi Y'k]h\'cbY'cf'a cfY'Ugg][ ba Ybh'cf

- VfcUXVUbX`WcbbYWjcb`f&) \* '\_V]#gYWcf`ZJghYfŁ
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A cfY']bZcfa Uh]cb'UVci hgmghYa 'fYei ]fYa Ybhg']g'Uj U]'UV'Y Uhkkk mgh XYbh'i bgk "YXi "Ui #a ccX'Y!gmghYa!fYei ]fYa Ybhg

.

# 5W\_bck `YX[ Ya YbhcZ7ci bhfm

 $K_{Y'UW\underline{b}ck} YX[Y'hY'6YXY[U''dYcd'Y'k \c'UfY'hY'ffUX]h]cbU''W ghcX]Ubg'cZhY''UbXg'cb'k \]WX'I_BGK_?Ybg]b[hcb'WJa_di_g']g''cWJhYX'''$ 

# 5ddYbX]I . '9b[ ]bYYfg'5i glfU`]U'f95Ł'DfcZYgg]cbU` '9b[ ]bYYf'7ca dYhYbWm GHJbXUfX

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D9%"&"7 cbWYdhi U``i bXYfgHUbX]b[ 'cZh\Y'a Uh\Ya Uh]Wgžbi a Yf]WU``UbU`mg]gžgHUh]gh]Wgž'UbX Wca di hYf'UbX']bZcfa Uh]cb'gW]YbWYg'k \]W\'i bXYfd]b'h\Y'Yb[]bYYf]b[ 'X]gW]d`]bY	
D9%" =: D!XYdh\ i bXYfgHJbX]b[ cZgdYW]U`]ghVcX]Yg`cZ_bck `YX[ Y`k ]h\]b`h\Y`Yb[ ]bYYf]b[ X]gW]d`]bY	
D9%"( '8 ]gWYfba YbhcZ_bck `YX[ Y`XYj Y`cda YbhUbX`fYgYUfW\`X]fYWIjcbg`k ]b\\]&ff\b\\ Yb[ ]bYYf]b[ `X]gW]d`]bY	
D9%") '? bck `YX[Y'cZYb[]bYYf]b[ 'XYg][ b'dfUWjWY'UbX'W&bhYl hi U``ZJWcfg']a dUWjb[ 'h\Y Yb[]bYYf]b[ 'X]gWjd`]bY	
D9%"* `I bXYfgHJbX]b[ `cZh\Y`gWcdYž'df]bWjd`Ygž'bcfa gž'UWVci bHJV]`]hjYg`UbX`Vci bXg`cZ gi gHJ]bUV`Y`Yb[ ]bYYf]b[ `dfUWfJWY`]b`h\Y`gdYWjZJWX]gWjd`]bY	
9b[]bYYf]b['Udd`]WUh]cb'UV]`]hm	
D9&"%5dd`]WUh]cb`cZYghUV`]g\YX`Yb[]bYYf]b[`a Yh\cXg`hc`Wca d`Yl `Yb[]bYYf]b[`dfcV`Ya gc`j ]b[	
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D9&"('5dd`]WUh]cb'cZgmghYa Uh]WUddfcUWXYg'hc'h\Y'WcbXi Wh'UbX'a UbU[Ya YbhcZYb[]bYYf]b[dfc'YWg	
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