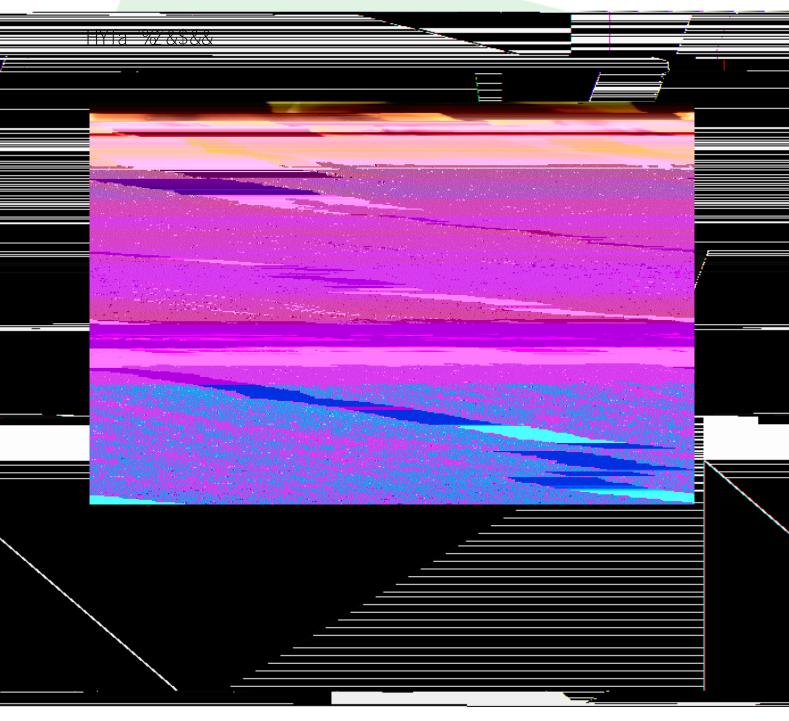
MINE8101

: i bXUa YbłU`g`cZA]b]b[`9b[]bYYf]b[



7ci fgY[·]Cj Yfj]Yk

GHJZZ7cbHJWh78YHJ]`g

7 cbj Ybcfg

| BUa Y | 9a U]` | 5j U]`UV]`]m | @cWUhjcb | D∖cbY |
|-----------------------------|---|--------------|---|-----------------------|
| < Ua YX`@Ua Y] F Ua UbX] | <u>\"`Ua Y]fUa UbX]4 i bgk "YXi "Ui</u> | A ccX`Y | GWXcc``cZ A]bYfU`g`UbX 9bYf[m F Ygci fW¥g 9b[]bYYf]b[C`X`A U]b 6i]`X]b[žF a %) * | Ž*%f&Ł -\$*)`+'%\$ |

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| &"'Ei]nnYg'fl'Ł | ()। | fYZYfihciA ccXiY | &ž`'Ž`(|
| '"AUĉfDfcΥWh | (\$1 | FYZYFhc'AccX`Y | &ž`'Ž`(|

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Ghufh Xuhy. FYZYf hc 'A ccX'Y 8i Y Xuhy. FYZYf hc 'A ccX'Y

Dfcj]XYX`]b`h\Y`Ugg][ba Ybh'

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]hmifYdcfhg"

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Ghufh Xuhy. FYZY finc 'A ccX'Y 8i Yi Xuhy. fYZY finc 'A ccX'Y

Dfcj]XYX^{*}]b^{*}h\Y^{*}Ugg][ba Ybh'

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Dfcj]XYX^{*}]b^{*}h\Y^{*}Ugg][ba Ybh'

H\]gʻUgg][ba Ybh]gʻgi Va]hhYXʻh\fci [\`Hi fb]h]bʻUbXʻgh XYbhgʻWUbʻgYYʻHi fb]h]bʻg]a]`Uf]hmifYdcfhg"

5hhYbXUbWY FYei]fYa Ybhg

Ghi XYbhgʻUfYʻghfcb[`mYbWci fU[YX`hcʻUhhYbX`U```WUggYgʻUbX`fYj]Yk ``YWhi fY`fYWcfX]b[g"

7 ci fgY GWX YXi `Y

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

5 hih Y YbX cZYUW. Wci fgYžU```ghi XYbhg`k]```\Uj Y h\Y`cddcfhi b]hmhc Wca d`YhY`U'Wci fgY`Yj U`i Uh]cb`Zcfa " H\YgY`Ubcbma ci g`gi fj Ymg`\Y`d`i g`i bXYfgHUbX`mci f`j]Yk g`cZh\Y`Wci fgYžmci f``YWhi fYfg`UbX`h\Y`Wci fgY a UhYf]U`g"`K Y`UfY`Wcbh]bi ci g`m`]a dfcj]b[`ci f`Wci fgYg`VUgYX`cb`ghi XYbhZYYXVUW_ž`UbX`mci f`dYfgdYWh]j Y]g`j U`i UV`Y"

: YYXVUW_`]g`[]jYb`j]U`<u>\hhdg.##ghiXYbh'i bgk "YXi "Ui #a mYI dYf]YbWY</u>`UbX`mci`k]``VY`bch]Z]YX`k \Yb`h\]g`]g UjU]`UV`Y`Zcf`mci`hc`Wcad`YhY"

K Y'U'gc'YbWci fU[Y'U```gh XYbhg'hc'g\UfY'UbmZYYXVUW_'h\Ym\Uj Y'Ubmih]a Y'Xi f]b[''h\Y'Wci fgY'-']Zmci \Uj Y'U'WcbWYfbž'd`YUgY'WcbhUWfi g']a a YX]UhY`m'

Gi Va]gg]cb⁻cZ⁻5ggYgga Ybh⁻HUg_g

H\Y'GW\cc``\Ug'XYjY`cdYX'U'[i]XY`]bY'hc'\Y`d'mci k\Yb'giVa]hhjb['U'WcifgY'Ugg][baYbh'

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

Mci f``YWi fYf`UbX`h\Y`I b]j Yfg]mik]``YI dYWinci f`gi Va]hYX`Ugg][ba Ybhg`UfY`hfi `minci f`ck b`k cf_"`I BGK \Ug`j YfmWYUf`[i]XY`]bYg`cb`k \Uhd`U[]Uf]ga `]g`UbX`\ck `hc`Uj c]X`]h'`D`U[]Uf]ga `]g`i g]b[`h\Y`k cfXg`cf]XYUg`cZch\Yfg`UbX`dfYgYbh]b[`h\Ya `Ug`nci f`ck b"`D`U[]Uf]ga `]g`U`mdY`cZ]bhY``YWi U``h\YZh'`+i`WUb`hU_Y a UbmZcfa gž`Zīca `XY`]VYfUhY`W\YUh]b[`hc`UVW]XYbhU``mVcdm]b[`Zīca `U`gci fWY`k]h\ci hUW_bck `YX[Ya Ybh' H\Y`I b]j Yfg]mi\Ug`UXcdhYX`Ub`YXi WUh]j Y`UddfcUV\'hc`d`U[]Uf]ga `UbX`\Ug`XYj Y`cdYX`U`fUb[Y`cZ fYgci fWYg`hc`gi ddcfhigh XYbhg''`5```h\Y`XYhU]`g`cb`d`U[]Uf]ga ž`]bWi X]b[`gca Y`i gYZ ``fYgci fWYgž`WUb`VY Zci bX`Uhi<u>k k k "qh XYbh'i bgk "YXi "Ui #d`U[]Uf]ga</u> "

5```A]b]b[`'9b[]bYYf]b['gh XYbhg`UfY`fYei]fYX`hc`Wcad`YhY`U`gh XYbhXYWUfUh]cb`Zcf`UWUXYa]W]bhY[f]hm k \]WX`]g`ci h]bYX`]b`h\Y`Ugg][baYbhWcj Yf`g\YYhg"`6mg][b]b[``h\]g`XYWUfUh]cbž`mci``U[fYY`h\Uhmci f`k cf_`]g mci f`ck b`cf][]bU``k cf_"

-Zmci 'bYYX'gca Y'UXX]h]cbU``gi ddcfrik]h 'mci f`k f]h]b['g_]``gž'd`YUgY'WcbhUWrih Y`@YUfb]b['7 YbffY`cf'j]Yk gca Y'cZh Y'fYgci fW'g'cb'h Y]f`k YVg]hY. <u>k k k "`Wi bgk "YXi "Ui</u>"''H\Y'@YUfb]b['7 YbffY`]g'XYg][bYX'hc`\Y`d mci ']a dfcj Y'mci f'UWUXYa]Wk f]h]b['UbX'Wca a i b]WUh]cb'g_]``g"'Gca Y'gh XYbg'i gY'h Y'7 YbffY`gYfj]WYg VYWUi gY'h Ym'UfY`Z]bX]b['h,Y]f'Ugg][ba Ybhg'U'W,U``Yb[Yž'ch Yfg'VYWUi gY'h Ymk Ubhhc`]a dfcj Y'Ub'U'fYUXm gi WWYggZ ``UWUXYa]WdYfZcfa UbWY"

5₩UXYa]W≢bZcfaUh]cb

7 ci fgY FYgi `hg

: cf[·]XYHJ]`gʻcbʻl BGK ʻUggYgga Ybhdc`]Whž'd`YUgYʻj]g]h'<u>kkk"gh XYbHʻi bgk"YXi "Ui #JggYgga Ybh</u>

5W_bck `YX[Ya YbhcZ7ci bhfm

 $\label{eq:constraint} \begin{array}{l} K_{1}^{T}(UW_{bck}^{T}X_{l}^{T}) & K_{1}^{T}(UX_{l}) \\ F(UX_{l}) & F(UX_{l}) \\ F(UX_{l}) & F(UX_{$