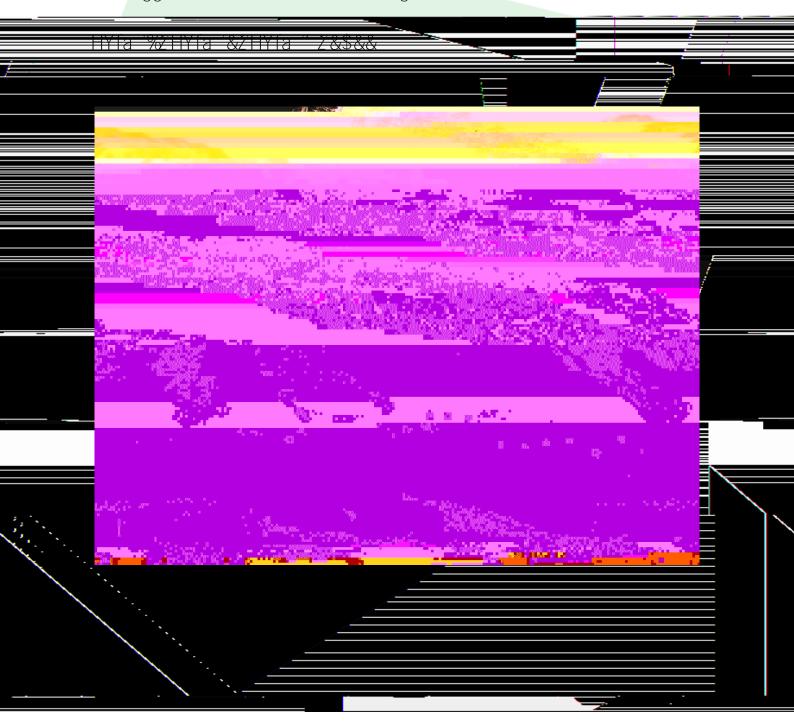


EDST6765

 $\label{lem:def_problem} DfcZYgg]cbU``9IdYf]YbW'`&\#bhYfbg\]d$



7ci fgY[·]Cj Yfj]Yk

GhJZZ 7 cbhJWh 8 YhJ] `g

7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]m	@cWUh]cb	D\cbY
5bXm; Uc	liYgcb["[Uc4 i bgk "YXi "Ui	6m9a U]` Uddc]bha Ybh	; &&`A cfj Yb 6fck b 6i]`X]b[

5Xa]b]ghfUhcfg

B Ua Y	9a U]`	5j U]`UV]`]m	@cWJhjcb	D\cbY
DfcZYgg]cbU` 9I dYf]YbWY`HYUa K cf_d`UWV +bHY[fUHYX @YUfb]b[dfcZYgg]cbU`Yl dYf]YbW\4 i bgk <u>"YXi "Ui</u>	9a U]`hc'UffUb[Y Ub'Uddc]bha Ybh	A cfj Yb 6fck b 6i]X]b[ž @ck Yf	

5W_bck `YX[Ya YbhcZ7ci bhfm

 $\label{eq:localized-loca$

 $\label{eq:continuous} \text{$\stackrel{\cdot\cdot}{=}$ U[Y'WciftYgmcZhY'CZhY'Dfc'J]WY!7\lubWY``cf'$$ bX][Ybcig']$$ Ybcig'ghfUhY[m]$$ and the sum of th$

7ci fgY 8YHJ] g

I b]hg~cZ7fYX]h~%~

K cf_`cUX

'\$\$`\cifg`]bWiX]b[`WUgg`WcbHUWh\cifgž`fYUX]b[gž`WUgg`dfYdUfUh]cbž`UggYggaYbhž`Zc``ck`id`UWh]j]h]Ygž YWV

Gi a a UfmcZh\Y 7ci fgY

 $YZd Zd R Yj ScZU T`fcdV \ddot{z}; e Zd RgR2/RS]V e`S`eY f_UVcXcRUfReV R_U a`deXcRUfReV def UV_ed \ddot{z} YV T`fcdV T`_eV_e UV]2/gVd R_U RddVdd^ V_eh2/] SV ZUV_eZR] Wc S`eY Xc`fad`Wdef UV_ed \ddot{z} YV T`fcdV T`_eV_e UV]2/gVd R_U RddVdd^ V_eh2/RS YV T`fcdV ReV R_U a`deXcRUfReV def UV_ed \ddot{z} YV T`fcdV T`_eV_eV_eV R_UV_eZR R_U A`deXcRUfReV def UV_ed \ddot{z} YV T`fcdV T`_eV_eV R_UV_eZR R_UV R_UV_eZR R_UV$

Gi VYWn5fYU, 7UfTReZ_

#\final hamma hamm

7 ci fgY @YUfb]b[Ci hWca Yg

- %" A YYhicfiYI WYYX"U```5 #G@; fUXi UhY"HYUW\]b["GhUbXUfXg"UWfcgg"U"fUb[Y"cZhYUW\]b["WcbhYI hg"UbX WUqqYq"
- &" Gi WWYggZi ``midUffnjWjdUhY`]b`UbX`Wcblf]Vi hY`hc`UWnjj]hjYg`UbX`]bhYfUWnjcbg`k]h\`h\Y`k]XYf`gW\cc` Wca a i b]hm'
- ' " 7 cbh]bi U``mfYZYWhcb`UbX`gYY_`ci hcddcfhi b]h]Yg`hc`]a dfcj Y`hYUW\]b['dfUWf]WY`h\fci [\``Yggcb cVqYfj Uh]cbžfYZYWhcb`UbX`]bei]fm"
- ("8 Ya cbgffUlY'U'glfcb['Wca a]ha Ybhz'Ybh\i g]Uga 'UbX'fYgdYWhZcf'h\Y'lYUW\]b['dfcZYgg]cb"

5i ghfu`]ub DfcZYgg]cbu`GhubXufXg Zcf HYUWXYfg

GľUbXUfX		5ggYgga Ybh#g
%"%	8Ya cbglfUlY'_bck `YX[Y'UbX'i bXYfglUbX]b['cZd\mg]WU`ž'gcW]U`ž'UbX	%ž' ž'(ž')
]bhY``YWn U`XYjY`cdaYbhUbX'W\UfUWhYf]ghJWg'cZghXYbhg'UbX'\ck'h\YgY	
	a UmUZZYWh`YUfb]b["	
%"&	8YacbglfUlY_bck`YX[Y'UbX'ibXYfglUbX]b['cZfYgYUfW\]blc`\ck	%ž' ž'(ž')
	ghi XYbhg``YUfb`UbX`h\Y`]a d`]WUh]cbg`Zcf`hYUV\\]b["	
%"'	8 Ya cbghfuhY _bck `YX[Y cZhYuWX]b['ghfuhY[]Yg h\uh'ufY 'fYgdcbg]j Y hc h\Y	%ž' ž'(ž')
	`YUfb]b['ghfYb[h\g`UbX'bYYXg'cZghi XYbhg'Zfca 'X]j YfgY``]b[i]ghjWgž	
	W`h fu`žfY`][]ci gž'UbX`gcW]cYWcbca]WVUW_[fci bXg"	
%"(8Ya cbghfUhY VfcUX _bck `YX[Y 'UbX'i bXYfghUbX]b['cZh\Y ']a dUWicZ	&
	WinifYzwinifUniXybhjmzubxnjb[i]ghjwvuw_[fcibxcbnhyyxxiwbhjcbcz	
	gh XYbhg Zfca '5Vcf][]bU`UbX'HcffYg GhfU]h €`UbXYf VUW_[fci bXg"	
%")	8 Ya cbghfUhY _bck `YX[Y`UbX'i bXYfghUbX]b['cZghfUhY[]Yg`Zcf	%ž' ž'(ž')
	X]ZZYfYbh]Uh]b['hYUWX]b['hc'a YYhhXY'gdYW]Z]W'YUfb]b['bYYXg'cZgh' XYbhg	
	UWfcgg^h\Y^Z\```fUb[Y^cZUV]`]h]Yg"	
%"*	8Ya cbghfUhY VfcUX _bck `YX[Y 'UbX'i bXYfghUbX]b['cZ`Y[]g`Uh]j Y	%ž' ž'(ž')
	fYei]fYaYbhg`UbX`hYUW\]b[`ghfUhY[]Yg`h\UhigiddcfhidUfh]W]dUh]cb`UbX	

	'YUfb]b['cZgh XYbhg'k]h\'X]gUV]`]hn'	
&"%		
	l	ı l

*"&	I bXYfgHJbX'h\Y'fY`Yj Ubh'UbX'Uddfcdf]UhY'gci fWrg'cZdfcZYgg]cbU```YUfb]b[Zcf'hYUW\Yfq"	%ž' ž'(ž')
* "	GYY_`UbX`Udd`mWcbgHi WMjY`ZYYXVUW_`ZFca `gi dYfj]gcfg`UbX`HYUW\Yfg`hc]a dfcjY`HYUW\]b[`dfUWf]WYg"	%ž' ž'(ž')
*"(8Ya cbghfuhY 'Ub'i bXYfghUbX]b['cZh\Y'fUh]cbU'Y 'Zcf'Wcbh]bi YX'dfcZYgg]cbU' 'YUfb]b['UbX'h\Y']a d']WUh]cbg'Zcf']a dfcj YX'ghi XYbh'YUfb]b["	%ž' ž'(ž')
+"%	I bXYfgHJbX`UbX`Udd`mih\Y`_Ymdf]bW]d`Yg`XYgWf]VYX`]b`WcXYg`cZYh\]Wg`UbX WcbXi WhZcf`h\Y`HYUW\]b[`dfcZYgg]cb"	%ž' ž(ž)
+"&	I bXYfghUbX'h\Y'fY`Yj Ubh`Y[]g`Uhjj Yž'UXa]b]ghfUhjj Yž'UbX'cf[Ub]gUhjcbU` dc`]WjYg'UbX'dfcWYggYg'fYei]fYX'Zcf'hYUW\Yfg'UVW\cfX]b['hc'g\W.cc`'ghU[Y"	%ž' ž(ž)
+""	I bXYfghUbX`ghfUhY[]Yg`Zcf`k cf_]b[`YZZYWhj Y`mž`gYbg]hj Y`mž`UbX WcbZJXYbhJU``mk]h\`dUfYbhg#WUfYfg"	%ž' ž'(ž')
+"(I bXYfgHUbX`H\Y`fc`Y`cZYI HYfbU``dfcZYgg]cbU``UbX`Wcaai b]lm fYdfYgYbHUHjj Yg`]b`VfcUXYb]b[`HYUW\YfgfidfcZYgg]cbU``_bck`YX[Y`UbX dfUWf)WY"	%ž' ž'(ž')

HYUW]b['GhfUhY[]Yg'

GlfUHY[]Yg. DfcZYgg]cbU``9I dYf]YbWY`Wcbg]ghg`cZghfi Wh fYX`cVgYfj Uh]cbgž]bWi X]b['gdYW]Z]WcVgYfj Uh]cbtUg_gž]bZcfa U``X]gW gg]cb`UbX`ZYYXVUW_žWf]hJWJ``fYZYWf]cbža U]bHYbUbWY`cZU`fYWcfX`Vcc_žgi dYfj]g]b[hYUWX]b['UbX`ch\Yf`Xi h]Yg`]b`U'gWXcc``gYhf]b['th\Uh'U``ck g`HYUWXYf`YXi WUh]cb`ghi XYbhg`hc`Yb[U[Y`k]h\gWXcc``U[Y`ghi XYbhgžhYUWXYfg`UbX`ch\Yf`dUfU!dfcZYgg]cbU`g"

5ggYgga Ybh

5ggYgga Ybh'hUg_	K Y][\h	8iY'8UHY	7 ci fgY @YUfb]b[Ci HWca Yg 5ggYggYX
%"`DfcZYgg]cb`FYUX]bYgg HYgh	B#5	B ch'5dd`]WUV`Y	,
&"'7i `hi fU`'5k UfYbYgg	B#5	Bch5dd`]WUV`Y	%ž'&ž'' ž'(
' "`≢bhYf]a 'F Ydcfh	B#5	Bch5dd`]WUV`Y	%ž'&ž'' ž'(
("'9j]XYbWY'GYh; fUXi UHY HYUW\]b['DYfZcfa UbWY 5ggYgga Ybhfl HD5Ł	B#5	B ch'5dd`]WUV`Y	%ž'
) "`:]bU``F Ydcfh	%\$\$ı	Bichi5dd`]WUV`Y	%ž'&ž' ž'(

5ggYgga Ybh% DfcZYgg]cb F YUX]bYgg HYgh

G]hi Uh]cbU``>i X[Ya Ybh'HYghik]h\ 'a ch]j Uh]cb'UbX'UXUdhUV]`]hma YUgi fYg'UbX'gY`Z UggYgga Ybhi g]b['h\ Y \ \D\ h\ f]a 'F Ydcfh' 7 ca d'YhY 'cb`]bY \ \Taca 'h\ Y '`]b_'[]j Yb']b'A ccX`Y'VY\ \ ZcfY'h\ Y'cf]YbhUh]cb'gYgg]cb"

5ggYgga Ybh& 7i `h fU` 5k UfYbYgg

D`YUgY`Wcad`YhY`h\Y`Zj Y`hUg_g`VY`ck`h\Uhk]```VY`U`gc`VY`]b`h\Y`AccX`Y`g]hY`k]h\`UXX]hJcbU``fYgcifW\g`Zcfmci"`H\Y`ZJfghhUg_`bYYXg`hc`VY`Wcad`YhYX`VYZcfY`mci`WcaaYbW\`mcif`dfcZygg]cbU``YIdYf]YbW\"'H\YgYUW\jj]hJYg`k]``\Y`d`mci`i bXYfghUbX`k\UhWcibhfmmci`UfY`hYUW\]b[`cbžhc`dfYdUfY`Ub`Uddfcdf]UhYU_bck`YX[aYbhcZWcibhfmUbX`hc`Wf]hJWU``m]bhYffc[UhY`mcif`ckb'W`hifU``ZfUaY`gc`h\Uhmcif`UkUfybYggcZch\Yf`W`hifYq`]q`Yb\UbWYX"

HUg_

K\Yb

8YgWf]dh]cb

%

DfY!dfUW

⇒YbhjZmh\Y'5Vcf][]bU`'7ci bhfmmci 'UfY'k cf_]b['cb'UbX'WfYUhY'Ub'Uddfcdf]UhY'UbX'h\ci [\h]` UW_bck `YX[Ya YbhcZWci bhfmh\Uhmci 'Wb'i gY']b'mci f'hYUW\]b['!'GYY'h\Y'<u>K Y'Wca Y'hc'7ci bhfm5dd</u>'Ug'U qhUfh|b['dc]bh'

&

K '&

```
g\ci^X^VY^g\UfYX^k]h\ch\Y^, K\ung^cZ?bck]b[1|b]h'

K__'(

7f]h\W'mYI Ua]bY'mci f'ck b'W 'hi fU^ZfUa Y'i g]b[ 'h\Y'\W'hi fU^Wca dYhYb\W'ZfUa Yk cf_']b'h\]g'XcW a Ybh
UbX^X]gW gg^\ck 'h\]g'ZfUa Y']bZi Yb\Wg`\ck 'mci 'fY`UhY'hc'ghi XYbhg UbX h\Y'W ff]W'i a "'

(

K__'*

: ]bX'ci hh\Y'\WbhU\WhXYhU]`g'Zcf'h\Y'<u>597.</u> WcgYghhc'mci f'g\Wcc'''@c\WUhY'U`'cZh\Y'5Vcf][]bU^'9Xi \WUhJcb
YI dYfhg'UbX'fYgci f\Wg']b'mci f'g\Wcc''UbX'mci f'gmghYa"'F Ydcfhih\Y'fYgi 'hg'cZmci f'gYUf\W']b'h\Y'Zcfi a"

)

K__',
```

f5 + HG@ž&\$% ž'd"%\$Ł"

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

5XX]h]cbU`XYhU]`g

H\Y; HD5 dfcj]XYg cddcfh b]hmZcf mci hc XYa cbghfUhY]a dUWhcZmci f hYUW\]b[cb gh XYbh YUfb]b["

 $8 i f]b[`D9\&'mci `k]```Wca d]`Y`U`fYdcfh]b`k \]WX`mci `UbU`mgY`UbX`^{} gh]Zmmci f'd`Ubb]b[ž'hYUWX]b[`UbXUggYgg]b[`WrWY`Zcf'cbY`WUgg'cj Yf'U'gi ghU]bYX``YUfb]b[`gYei YbWY`h\Uhmci `hYUWX`UWfcgg'h\Y`Xi fUh]cb`cZmci f'd`UWYa Ybh'UbX`]b`k \]WX`mci `hU_Y`fYgdcbg]V]`]mmZcf'h\Y`k \c`Y`WUgg''$

FYei]fYaYbhg'Zcf'h\Y``YUfb]b['gYeiYbW'`UfY'h\Uh]h]g.

- i bXYftU_Yb`cb`cbY`WUgg`ft\]g`a UmVY`Wcbgt]hi hYX`VmU`g]b[`Y`mYUf``Yj Y``cf`U`fUb[Y`cZmYUf``Yj Y`g`Ug`]b Wca dcg]hY`cf`a i `t]!U[Y`WUggYgŁ/
- gi ghU]bYX cj Yf U dYf]cX cZd UWYa Ybhfa]b]a i a '('k YY_gŁ/
- ZcW ggYX cb 'U g]b[`Y ``YUfb]b['cf'hYUW\]b['UfYUžcf'U Wca V]bUh]cb 'cZgi V YWg ']b 'Ub ']bhY[fUhYX 'UddfcUW\/ UbX
- $\bullet \ [b] \ [w] \ b \ [b] \ [b] \ [w] \ b \ [w] \ [w] \ [w] \ b \ [w] \ [$
- ±b Wca d'Yh]b['h\]g'UggYgga Ybhmci 'k]``XYa cbghfuhY mci f'_bck `YX[Yži bXYfghUbX]b['UbX'WUdUV]`]h]Yg']b.
- 'd`Ubb]b['k]h\ 'XUhU
- 'hYUWX]b['UbX ``YUfb]b[
- 'dfcj]X]b['ZYYXVUW_'UbX'dfcZYgg]cbU``^ X[Ya Ybh
- 'fYZYW']b['cb'dfUWj\W'ž'UbX
- Uddfu]g]b['h\Y']a dUWicZhYUW\]b['cb'gh XYbh`YUfb]b["

H\]g`XYa cbglfUh]cb`U`gc`]bWi XYg`a U_]b[`UX^gha Ybhg`hc`a YYhih\Y``YUfb]b[`bYYXg`cZU```ghi XYbhg`]b`h\Y WUggž`a U_]b[`WcbbYWf]cbg`VYhk YYb`h\YcfmUbX`dfUWf]WYžUbX`dfcj]X]b[`Yj]XYbW'cZdYXU[c[]WXYWJg]cb! a U_]b[ž'hYUW\]b[`dfUWf]WYgžUbX``YUfb]b[`ci hWca Yg"`\delta`UZcfXg`mci `cddcfhi b]hmhc`XYa cbglfUhY`mci f Ya Yf[]b[`dfcZYgg]cbU``U[YbWnUbX`]XYbh]hm]b`hYUW\]b[`WhWYg"

5ggYgga Ybh) :]bU`F Ydcfh

H\Y`<u>Z\bU``fYdcfh</u>`]g`Wca d`YhYX`Uh'h\Y`YbX`cZh\Y`d`UWYa Ybh'`H\Y`fYdcfhg`UfY`k f]hh \c``UVhfUhYj Ymb`k Y]b

fYWcfXYX`cb`f\Y`<u>Yggcb`ZYYXVUW`UbX`fYZYWf\cb`Zcfag</u>`Wcad]`YX`Vmmci`]b`Vcf\`f\Y`dfcZYgg]cbU`YIdYf]YbW`UbX`]bhYfbq\]d'd\UgYq`cZf\Y`WcifqY"`

: cf`YUW\`ghUbXUfX`XYgWf]dhcf`h\Y`Z]bU``fYdcfhž'h\Y``Yj Y``cZUW\]Yj Ya Ybh]g`UggYggYX`Ug B8`-`Bch8Ya cbghfUhYXž 8`-`8Ya cbghfUhYXž'cf 9`-`9I WYYXg`9I dYWfUh]cbg"`

 $\label{thm:linear} $$HY'Z_bU''[fUXY'Uk\ UfXYX'Zcf'DfcZ'gg]cbU''9I\ dYf]YbW''\&\#bHYfbg\]d']g'Y]hYf'GUHgZJWcfmcf'I\ bgUHgZJWcfm VUqYX'cb'k\ YHYF'gH\ XYbHg'Xc'cf'Xc'bcha\ YYHU''cZ'hY'gHJbXUfX'XYgWf]dhcfg''$

 $D Y U g Y \cdot g i Va] h h h Y \cdot \underline{Z} \underline{b} \underline{U} \cdot \underline{f} \underline{Y} \underline{d} \underline{f} \underline{h} \underline{g} [\underline{b} \underline{Y} \underline{X} \cdot \underline{V} \underline{m} \underline{U} \cdot \underline{h} \underline{f} \underline{Y} \underline{Y} \cdot \underline{d} \underline{d} \underline{h} \underline{h} \underline{Y} \cdot \underline{Y} \cdot \underline{d} \underline{d} \underline{h} \underline{Y} \cdot \underline{X} \cdot \underline{f} \underline{a} \cdot \underline{c} \underline{Z} \underline{h} \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{Z} \underline{h} \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{Z} \underline{h} \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{Z} \underline{h} \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{Z} \underline{h} \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{Z} \underline{h} \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{Z} \underline{h} \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{Z} \underline{h} \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{Z} \underline{h} \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{Z} \underline{h} \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{Z} \underline{h} \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{X} \cdot \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{X} \cdot \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{X} \cdot \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{X} \cdot \underline{Y} \cdot \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{c} \underline{X} \cdot \underline{Y} \cdot \underline{Y} \cdot \underline{Z} \underline{f} \underline{a} \cdot \underline{C} \underline{X} \cdot \underline{Y} \cdot \underline{Y} \cdot \underline{X} \cdot \underline{Y} \cdot \underline{X} \cdot \underline{Y} \cdot \underline{X} \cdot \underline$

5 hhyb XUb WY F Yei]fYa Ybhg

GWki]]XUbWYFYei]fYa Ybhg

Fygci fWyg

DfYgWf]VYX F Ygci fWYg

 $\label{thm:compared} $$ \hdg.\#k \ k \ "i \ bgk "YXi "Ui \ \#Jfrg!XYg][\ b!UfW.]hYWh \ fY\#ci \ f!gW.cc`g\#Xi \ WUh]cb\#gh \ XYbh`]Z/\#Wci \ fgY! $$ \bZcfa \ Uh]cb\#dfcZYgg]cbU`!YI \ dYf]YbWM $$$

Gi Va]gg]cb cZ5ggYgga YbhHUg_g

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

Image: Ybwci bhYf'U'dfcV'Ya k \Yb'UhYa dhJb['hc'gi Va]hmci f'Ugg][ba Ybht\fci [\'Hi fb]hJbž'd'YUgY

HY'Yd\cbY'9| hYfbU'`Gi ddcfhcb'-',) '' ' ' %cf'Ya U]`'h\Ya 'cb'Y! hYfbU'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'mYUfŁ"'=Imci
UfY'i bUV'Y'hc'gi Va]hmci f'Ugg][ba YbhXi Y'hc'U'ZJi 'hk]h\'Hi fb]hJb'mci 'a UmUdd'mZcf'Ub'Y! hYbg]cbž'Vi hmci
a i ghfYhJ]b'mci f'hJW_Yhbi a VYf'Zfca '9! hYfbU'`Gi ddcfhfU'cb['k]h\'Ubmch\Yf'fY'Yj UbhXcW a YbhgŁ'hc
]bWi XY'Ug'Yj]XYbW'hc'gi ddcfhmci f'Y! hYbg]cb'Udd']WUhJcb"'=Imci 'Ya U]''9! hYfbU'`Gi ddcfhmci 'k]'`
Ui hca UhJWJ'`mfYWY]j Y'U'hJW_Yhbi a VYfž'Vi h]Zmci 'hY'Yd\cbY'mci 'k]'``bYYX'hc'gdYWJZJWJ'`mUg_'Zcf'cbY''
Hi fb]hJb'U'gc'dfcj]XYg'i dXUhYg'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"

: cf']b \mathbb{Z} cfa Uh]cb'cb'\ck 'hc'gi Va]h'Ugg][ba Ybhg'cb`]bY'j]U'A ccX`Y. `\hhdg.##gh XYbh'i bgk "YXi "Ui \mathbb{A} ck! qi Va]h'Ugq][ba Ybha ccX`Y

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"`=hWJb`hJ_Y`a Ubm Zcfa gžZca `XY`]VYfUhY`W\YUh]b['hc`UVW]XYbhJ``mWcdm]b['Zfca `U`gci fWY`k]h\ci hUW_bck `YX[Ya Ybh'

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

 $\begin{tabular}{ll} \hline \textbf{7.cdm}b[...] g]b[...] MY cf'j Yfmg]a] ``Uf'k cfXg'hc'h\Y'cf][] bU``HYI hcf']XYU'k]h\ci h`U\W_bck ``YX[]b[...] b[...] MY cf'i g]b[...] bU``HYI hcf']XYU'k]h\ci h`U\W_bck ``YX[]b[...] b[...] MY cf'i g]b[...] a UhYf]U`gž']XYUg'cf'WcbW'dhg'\bar{Z}ca '`U'Vcc_\bar{Z}Ufh]WY\bar{Z}ca '`U'Vcc_\bar{Z}Ufh]\bar{Z}ca '`U'Vcc_\bar{Z}Ufh]\bar{Z}ca '`U'Vcc_\bar{Z}Ufh]\bar{Z}ca '`U'Vcc_\bar{Z}Ufh]\bar{Z}ca '`U'Vcc_\bar{Z}Ufh]\bar{Z}ca '`U'Vcc_\bar{Z}Ufh]\bar{Z}ca '`U'Vcc_\bar{Z}Ufh]\bar{Z}ca '`U'Vcc_\bar{Z}Ufh]\bar{Z}ca '``U'Vcc_\bar{Z}Ufh]\bar{Z}ca '``U'Vcc_\bar{Z}Ufh]\bar{Z}ca '``U'Vcc_\bar{Z}Ufh]\bar{Z}Ufh]\bar{Z}Ufh]\bar{Z}ca '``U'Vcc_\bar{Z}Ufh]\bar{Z}U$

5 WUXYa]W±bZcfa Uhjcb

8 i Y 'hc 'Yj c'j]b['UXj]WY 'VmB GK '< YU'th žighi XYbhg'a i gh'WkYW_'Zcf'i dXUhYX']bZcfa Uh]cb 'fY[UfX]b['cb`]bY 'YUfb]b['Zcf'U``'5fhgž'8Yg][b 'UbX'5fWk]hYWhi fY 'Wci fgYg'th]g'thYfa 'fJ]U'A ccX'Y'cf'Wci fgY']bZcfa Uh]cb dfcj]XYX"Ł