

SRAP5021

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7ci fgY⁻Cj Yfj]Yk

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'7cbj Ybcfg'

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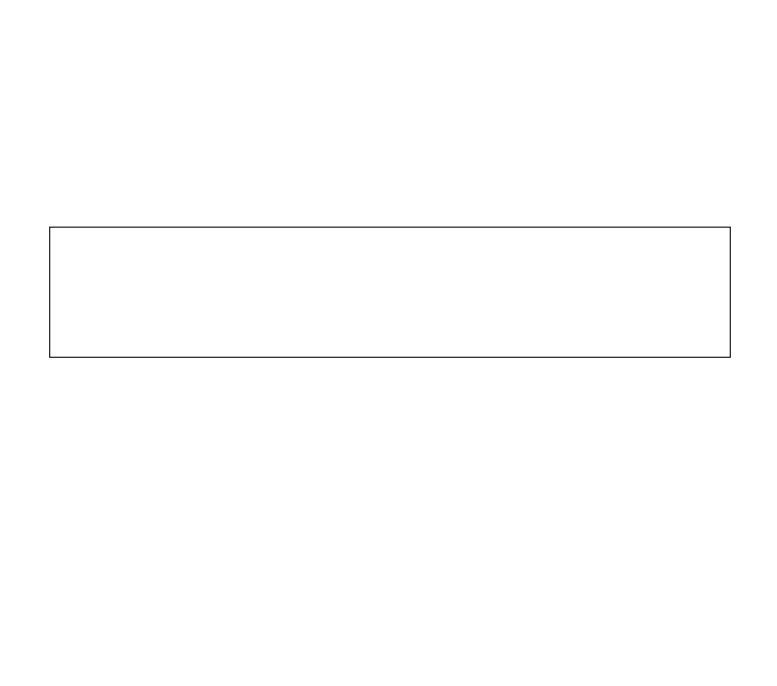
GWXcc``cZGcWJU``GWJYbWYg

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 $\label{thm:locality:locality:bound} $H \Upsilon '' = (fci d'W ' a dcb Ybh' 'h '] g' U g (fci d'W ' a dcb Ybh' h 'g' U g (fci d'W '$

 $\label{thm:continuous} \begin{tabular}{ll} Hi fb]h]b"gYh]b" . "H\]g"Ugg][ba Ybh]g"gi Va]hhYX"h\fci [\h]h]b"UbX"ghi XYbhg"WUb"gYY"Hi fb]h]b"g]a]"Uf]hm fYdcfhg" . "H\]g"Ugg][ba Ybh]g"gi Va]hhYX"h\fci [\h]h]b"UbX"ghi XYbhg"WUb"gYY"Hi fb]h]b"g]a]"Uf]hm fYdcfhg" . "H\]g"Ugg][ba Ybh]g"gi Va]hhYX"h\fci [\h]h]b"UbX"ghi XYbhg"WUb"gYY"Hi fb]h]b"g]a]"Uf]hm fYdcfhg" . "H\]g"Ugg][ba Ybh]g"gi Va]hhYX"h\fci [\h]hhy "UbX"ghi XYbhg"WUb"gYY"Hi fb]h]b"g]a]"Uf]hm fYdcfhg" . "H\]g"Ugg][ba Ybh]g"gi Va]hhYX"h\fci [\h]hhy "UbX"ghi XYbhg"WUb"gYY"Hi fb]h]b"g]a]"Uf]hm fYdcfhg" . "H\]g"Ugg][ba Ybh]g"gi Va]hhy "UbX"ghi XYbhg"WUb"gYY"Hi fb]hhy "UbX"ghi XYbhg"WUb"gYY"Hi fb]hy "UbX"ghi XYbhg"Wub"gyY "Hi fb]hy "UbX"ghi XYbhg" "UbX"ghi XYbhg" "UbX"ghi XYbhg" "UbX"ghi XYbhg" "UbX"ghi XYbhg "UbX"ghi XYbhg" "UbX"ghi XYbhg" "UbX"ghi XYbhg "UbX"ghi X$

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<u>J]Yk 'WUgg'hja YHUV'Y</u>

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8 UHY	HmdY	7 cbhYbh
K YY_'%'%+': YVfi Ufm!'&% : YVfi Ufm	GYa]bUf	K \Uhi]g`UXj cWUWh3`K \Uhi]g`UWhjj]ga 3`K \Uhi]g`Y! UWhjj]ga 3
		<pre>< ck 'Xc'UXj cWUWmUbX'UWfj]ga ']bZi YbWY'dc`]Wm WXUb[Y3'< ck 'Xc'k Y'X]gfjb[i]g\ 'VYfk YYb'X][]fU` UXj cWUWmUbX'ch\Yf'Zcfa g'cZ]bZi YbWY'gi WX'Ug `cVVm]b[3'< ck ']g']h``]b_YX'fc'Wca a i b]fm cf[Ub]g]b[3'</pre>
	Cb`]bY'5Whjj]hm	7 ca d`YhY`U`X][]hU``g_]``g`]bj Ybhcfmhc`UggYgg`mci f ck b`X][]hU``g_]``g"`
K YY_'&.'&(': YVfi Ufm!'&, : YVfi Ufm	GYa]bUf	H\Y'dc`]WmdfcWYggžZfUa]b['h\Y']ggiYžgYh]b[h\Y'U[YbXU'UbX'WUadU][b'[cU`g
		7 c`YVUHW.'g`WcbWdhi U``ZfUa Yk cf_'cZh\Y`dc`]WmdfcWgg`]g`]blfcXi WYX"'H\Y`WcbWdhcZf]ggi YZfUa]b[fi]g`U`gc`Yl d`U]bYX`]b`fY`Uh]cb`hc`\ckdfcV`Ya g`a U_Y`]hcbhc`h\Y`dc`]WmU[YbXU"'H\Y]bZi YbWf`cZh\Y`a YX]U`]b`h\]g`dfcWfgg`]g`U`gcYl Ua]bYX"
K YY_'' . '&'A UfWX'! '* A UfWX	GYa]bUf	; i Ygh`YWh fY
	C b`]bY'5Wfjj]fm	Y!UXj cWUWmhcc`g
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K YY_'(.'-'A UfW\'!'% A UfW\	GYa]bUf	GHJ_Y\c`XYfgž]bhYfYgh[fcidgž]bg]XYfg#cihg]XYfgž'UbX'bYhkcf_g 5bU`mg]g'cZX]ZZYfYbhUWcfg'UbX'h\Y]f'fc`Yg'Vch\']b fY`Uh]cb'hc'h\Y'UXj cWUWhWUadU][b'UbX'h\Y'dc`]Wh dfcWfgg"'=XYbh]ZmghJ_Y\c`XYfg'k]h\'h\Y'dckYf'hc \Y`d'cf'\]bXYf'h\Y'WJadU][b"'
K YY_').'%*'A UfWX'!'&\$ A UfWX	GYa]bUf	HY``]b['h\Y'ghcfmUbX'a U_]b['h\Y'bYk g 7 fUZi]b['h\Y'ghcfmhc'[U]b'Wcblfc``cZh\Y'U[YbXU" 5bU`mg]g'cZXca]bUbhghcf]Yg']b'mci f'WkcgYb WJa dU][b'gdUW'UbX'WfUZi]b['mci f'ghcfm' 7 cbg]XYfUi]cb'cZcb`]bY'j g'cZZ]bY'WJa dU][b

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K YY**.*&' ^A UfVX^!*&+ A UfVX	GYa]bUf	I gY`cZYj]XYbW
		Ig]b[`UbX`dfYgYbh]b[`Yj]XYbWY`Zcf`dc`]WhiWXUb[Y" 9jU`iUh]b[`gcW]U``aYX]U`Ug`U`gcifWY`cZYj]XYbWY"`
K YY_`+.'' \$`A UfWX`!'' 5df]`	GYa]bUf	5 Whjj]ga ž:WmVYfUWhjj]ga ž:g`UWhjj]ga ž:UbX W]W_hjj]ga /:Uk UfYbYggža cV]`]nUhjcb:UbX fYUWhjcb
		<pre>< ck 'YZYWfj Y']g'X][]hU``UXj cWUWnUbX'UWfj]ga Wca dUfYX'hc'cZZ]bY'ghfUhY[]Yg3'<ck 'xc'k="" cv]`]ny="" ddcfhyfg3<="" gi="" pre="" y'a=""></ck></pre>
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		5 W]hw`YI Ua]bUhcb'cZhUbgbUhcbU`UXj cWJWm UbX'\ck ``cWJ``UWcfg'WJb'VY'X]gYa dck YfYX'UbX ci hwa Yg'Wa dfca]gYX'Zfca 'ci hg]XY"
K YY_''% '5df]`'!'%+ 5df]`	GYa]bUf	6`UW_`@]jYg`AUHHYf`#±bX][Ybcig`8YUh\g`]b 7ighcXm
		91 d`cfUhjcb'cZh\Y']bhYfgYWhjcbg'VYhk YYb'dfchYgh a cj Ya Ybhg'U[U]bgh'dc']WY'j]c'YbWY']b'h\Y'l G'UbX 5i ghfU']U"
K YY_"%\$."&\$"5df]`"!"&(5df]`	GYa]bUf	GUi ``5`]b_gmg'Fi `Yg'Zcf'FUX]WU`g

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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"'\lefi\Wb'hU_Y`a Ubm Zcfa gžZfca `XY`]VYfUhY`W\YUh]b['hc`UVW]XYbhU`mWcdm]b['Zfca `U`gci fW'k]h\ci hUW_bck `YX[Ya Ybh'

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

7 cdm]b[.'i g]b['h\Y'gUa Y'cf'j Yfmg]a]`Uf'k cfXg'hc'h\Y'cf][]bU`hYl h'cf']XYU'k]h\ci h'UW_bck `YX[]b['h\Y gci fW'cf'i g]b['ei chUh]cb'a Uf_g"'H\]g'U`gc'Udd`]Yg'hc']a U[Ygž'Ufh'UbX'XYg][b'dfcYWgž'Ug'k Y``'Ug dfYgYbhUh]cbg'k\YfY'gca YcbY'dfYgYbhg'Ubch\Yf'g']XYUg'cf'k cfXg'k]h\ci h'WfYX]h'

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7 c``i g]cb.'k cf_jb['k]h\ch\Yfg'Vi hdUgg]b['cZZh\Y'k cf_'Ug'U'dYfgcb'g']bX]j]Xi U``k cf_"'7 c``i g]cb'U`gc]bWi XYg'dfcj]X]b['mci f'k cf_'hc'Ubch\Yf'ghi XYbhVYZcfY'h\Y'Xi Y'XUhYžcf'Zcf'h\Y'di fdcgY'cZh\Ya d`U[]Uf]g]b['UhiUbmh]a Yž'dUm]b['Ubch\Yf'dYfgcb'hc'dYfZcfa 'Ub'UWUXYa]WhUg_ž'ghYU']b['cf'UWei]f]b[Ubch\Yf'dYfgcb'g'UWUXYa]Wk cf_'UbX'Wcdm]b[']hz'cZYf]b['hc'Wca d'YhY'Ubch\Yf'dYfgcb'g'k cf_'cf'gYY_]b[dUma YbhZcf'Wca d'Yh]b['UWUXYa]Wk cf_"

±bUddfcdf]UhY`W]hUh]cb.`7]h]b[`gcifWrg`k\]W\`\UjY`bchVYYb`fYUXžk]h\cihUW_bck`YX[]b[`h\Y`″gYWcbXUfm″gcifWrZfca`k\]W\`_bck`YX[Y`cZh\Ya`\Ug`VYYb`cVhU]bYX"

8 i d`]\WUh]cb`ffgY`Zd`U[]\Uf]ga "Ł gi Va]\h]b[`mci f`ck b`k cf_ž]b`k \c`Y`cf`]b`dUfhžk \YfY`]h\Ug`dfYj]ci g`m VYYb`dfYdUfYX`cf`gi Va]\hYX`Zcf`Ubch\Yf`UggYgga Ybhcf\Wci fgY`UhI BGK `cf`Ubch\Yf`i b]j Yfg]\m'

7 cffYWnfYZYfYbW]b[dfUWf]WYg.

- DUfUd\fug]b[ž'gi a a Uf]g]b[ž'YggUmk f]h]b['UbX'h]a Y'a UbU[Ya Ybh
- 5ddfcdf]UhY'i gY'cZUbX'Uhtf]Vi h]cb'Zcf'U'fUb[Y'cZa UhYf]U`g']bWi X]b['hYl hž']a U[Ygž'Zcfa i `UY'UbX WbWYdhg"

±0X]j]Xi U``Ugg]ghUbWr`]g`Uj U]`UV`Y`cb`fYei YghZfca `H\Y`@YUfb]b[`7 YbhfY`f\hd.#k k k "`Wi bgk "YXi "Ui #L" Ghi XYbhg`UfY`U`gc`fYa]bXYX`h\UhWUfYZ ``ha Ya UbU[Ya Ybh]g`Ub`]a dcfhUbhdUfhcZghi XmUbX`cbY`cZh\Y]XYbh]Z]YX`WUi gYg`cZd`U[]Uf]ga `]g`dccf`h]a Y`a UbU[Ya Ybh'`Ghi XYbhg`g\ci `X`U``ck `gi ZZ]W]Ybh'h]a Y`Zcf fYgYUfW\žXfUZn]b[`UbX`dfcdYf`fYZYfYbW]b[`cZgci fW*g`]b`dfYdUf]b[`U```UggYgga Ybh']hYa g"

IBGK "@]VfUfmU'gc'\Ug'h\Y'9@&9'hcc`'Uj U]`UV`Y'hc'Ugg]ghimci ik]h\'mcif'ghi Xm'Uhi BGK "'9@&9']g XYg][bYX'hc']bhfcXi WY'bYk 'ghi XYbhg'hc'ghi Xm]b['Uhil BGK 'Vi h']h\Wb'U'gc'VY'U'[fYUhifYZfYg\Yf'Xi f]b['mcif ghi Xm'

7 ca d'Yhjb['h\Y'9@&9'hi hcf]U`'UbX'ei]n'k]``'YbUV'Y'mci 'hc.

- UbU`mgY`hcd]\Mgž'd`Ub`fYgdcbgYg`UbX`cf[Ub]gY`fYgYUf\X\`Zcf`U\WJXYa]\Wkf]hjb[`UbX`ch\YfUggYggaYbhiHJg_g
- YZZYWIJ Y`mUbX`YZZWYbh`mZbX`Uddfcdf]UhY`]bZcfa Uh]cb`gci fWg`UbX`Yj U`i UhY`fY`Yj UbWY`hc`mci f bYYXg
- i gY`UbX`a UbU[Y`]bZcfa Uh]cb`YZZYWf]jY`mihc`UVWca d`]g\`U`gdYW]Z]Wdi fdcgY

- i bXYfgHUbX'mci f'f][\hg'UbX'fYgdcbg]V]`]h]Yg'Ug'U'gh XYbh'UhI BGK
 VY'Uk UfY'cZd`U[]Uf]ga ž'Wcdmf][\hz'I BGK 'Gh XYbh'7cXY'cZ7cbXi Wh'UbX'5VWWdhUV`Y'I gY'cZ IBGK =7 HF Ygci fWrg Dc`]Wh