

7ci fgY[·]Cj Yfj]Yk

GhJZZ 7 cbhJWh 8 YhJ] `g

7cbj Ybcfg

BUa Y	9a U]`	5j U]`UV]`] h m	@cWUh]cb	D\cbY	
Hcbm@ci[\`UbX	hcbm''ci [\`UbX4 i bgk "YXi "Ui	- 3	A cfj Yb 6fck b ⁺ ; &fck b	'; &fck b'; &fe	ck bi; &fc

5W_bck `YX[Ya YbhcZ7ci bhfm

 $\label{eq:localized-loca$

%"```F5H£B5@9": CF"H<9"B7@| G€B"C: '7CBH9BH'5B8"H957<B; '5DDFC57<' .

H\]g'Wti fgY'k]``YbUV`Y'ghi XYbhg'hc `XYj Y`cd'Ub'i bXYfghUbX]b['cZh\Y']a dcfhUbhfc`Y'hYUW\Yf'dfcZ\rgg]cbU` YUfb]b['UbX'XYj Y`cda Ybhd`Umg']b'WtbhYa dcfUfmWtbhYI hg"'H\Y'Wti fgY']bj c`j Yg'U'XYhU]`YX'ghi XmcZh\Y h\Ycfmž'fYgYUfW\'UbX'dfUWf]WV'UggcW]UhYX'k]h\'h\]g'hcd]WUg'k Y``'Ug'h\Y'cddcfhi b]mhc'Wta d'YhY'U'dfUWf]WU`dfc YWhh\Uh]g'Udd`]WUV`Y'hc'h\Y'WtbhYI h']b'k\]W\'h\Y'dUfh]WjdUbhk cf_g"'Ghi XYbh`YUfb]b['ci hWta Yg'UfY gi ddcfhYX'VmhYUW\]b['UbX'`YUfb]b['ghfUhY[]Yg'h\Uh]bWi XYg``YWhi fY!XY`]j Yfmž'[fci d'k cf_ž']bX]j]Xi U` dfYqYbhUhcbg'UbX'X]qW|qq]cb"

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5ggYgga Ybh

5ggYgga Ybh'hJg_	K Y][\h	8iY'8UHY	7 ci fgY`@YUfb]b[Ci hWca Yg`5ggYggYX
%"`A]bcf'k f]hhYb'Ugg][ba Ybh	')	')&+#\$*#&\$&&`\$).\$\$`DA	%ž'&ž'' ž'(ž'- ž'%\$
&"`CfU``dfYgYbHJHjcb	% \$I	&*#\$+#&\$&&`\$).\$\$`DA	%ž'&ž'' ž'(ž') ž'* ž'+ž', ž'- ž'%\$

Gh XYbhg k]``fYWr]j Y k f]hh/b ZYYXVUW_k]h\]b h\fY'k YY_g cZgi Va]gg]cb

H\]g`]g`h\Y`ZbU``UggYgga Ybh

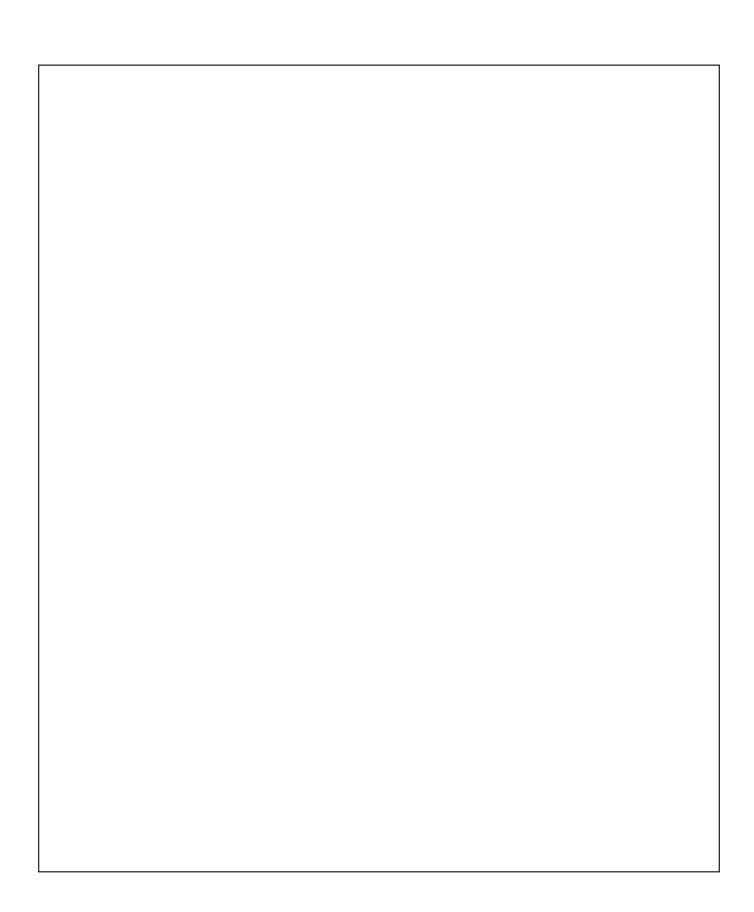
H\]g Ugg][ba Ybh]g gi Va]h\X h\fci [\ Hi fb]hb UbX gh XYbhq WUb gYY Hi fb]hb g]a]\Uf]hmfYdcfhg"

5XX]h]cbU`XYhJ]`g

HUg_" 'Zc"ck g'cb'Zfca 'HUg_"&ž"]b'XYj Y`cd]b['U'XYHJ]YX'dfcdcgU' 'hc 'gYhi d'cf'g][b]ZJWbhmfYj]gY'U dfcZYgg]cbU' "YUfb]b['dfc[fUa 'WYblfYX'k]h\]b'h\Y'gh XYblfg'ck b'k cf_d'UWY" 'H\Y'd'Ub'a i ghVY'VUgYX'cb bYk '_bck 'YX[Y'UWei]fYX']b'h\]g'Wci fgY" 'Gh XYblfg'g\ci 'X'Wf]h]ei Y'h\Y'j Uf]ci g'dfcZYgg]cbU' "YUfb]b[a cXY'g'UbX'glfUhY[]Yg'h\YmWcbg]XYfYX']b'Uff]i]b'['Uhh\Y'ZfUa Yk cf 'h\Ymd'Ub'hc'XYd'cm'

H\Y`dfcdcgU``bYYXg`hc`]bWi XY`U`WcghiVYbYZhiUbU`mg]g`Ug`k Y```Ug`Ub`YI d`UbUh]cb`cZ]hg`U`][ba Ybhk]h\ W ffYbh']bghhi h]cbU``[cU`gžj U`i Yg`UbX`cdYfUh]cbU``WcbghfU]bhg''`

HUg_" fyei]fyggh XybhghcXyj Y`cdUbXgi Va]hUXYhU]`YX'k f]hhybidfcdcgU``k]h\U``Yb[h\cZ' \$\$\$'k cfXg"



FI 6F = 7 # 998657? G < 99H 98GH)'\$, H957 < 9F @95FB + B; IBGK G7 < CC@C: 98I 75H + € B

 $5\,ggYgga\ Ybh'HUg_''$. A U/cf'k f]hhYb 'Ugg][a bYbh

GdYW]Z]W7 f]hYf]U	fl.t	 	2fŽŁ
I_bXYfgHJbX]b['cZh\Y'ei Ygh]cb'cf']ggi Y'UbX'h\Y'_YmWcbWYdhg]bj c`j YX			
• ≢bhYfdfYhUh]cb`cZei Ygh]cb`UbX`Yj]XYbVW			
5bU`mg]gʻUbX`YjU`iUh]cb`cZgU`]Ybh'Uf[iaYbhg			
8Yd 'cZ'UbU'mg]g'UbX'Wf]h]ei Y']b'fYgdcbgY'hc'h\Y'HJg_			
• 9j]XYbWY`cZ\][\`cfXYf`UbU`mt]Wg_]``g			
FYUgcb]b[cZUf[i a Ybh#g			
<pre>! JUf]mk]h\ `UbX`fY`Yj UbW\`cZdfcZYgg]cbU``UbX#cf`fYgYUfW\\ i fY`i gYX`rc`gi ddcfhifYgdcbgY ! bXYfgrUbX]b['cZh\YcfmUbX`fYgYUfW\']bWi X]b['fYZYfYbW\g'rc WcbhYa dcfUfm`]hYfUhi fY`cb`dfcZYgg]cbU```YUfb]b['a cXY`g'UbX glfUhY[]Yg ! 8Ya cbglfUh]cb`cZU`gmbh\Yg]g`cZbYk '_bck `YX[Y`UWei]fYX`]b`h\]g Wci fgY ! 9j]XYbW\`cZWf]h]WU``fYUX]b[</pre>			
Whi fY'UbX'cf[Ub]gUh]cb'cZ'fYgdcbgY			

9i\$

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GdYW] ZJW7 f]hYf]U	∵flŁ—		 2fŽŁ
 FYZYfYbWJb['cZgci fWYg'i g]b['5D5'ghmY'/ 'Wca d'YhYbYgg'cZ fYZYfYbWY'`]gh 			
; YbYfU`Wca a Ybhg#fYWca a YbXUh]cbg'Zcf'bYl h'h]a Y.'			

FYWca a YbXYX. #&\$ fl @ DG 7F 8B < 8 $K Y][\h]b[.))ı$

B6. H\Y'h]W_g']b'h\Y'j Uf]ci g'Vcl Yg'UfY'XYg][bYX'hc'dfcj]XY'ZYYXVUW_'hc'ghi XYbhg/h\YmUfY'bch[]j Yb Yei U`k Y][\h']b'XYhYfa]b]b['h\Y'fYWca a YbXYX'[fUXY"'8YdYbX]b['cb'h\Y'bUhi fY'cZh\Y'UggYgga Ybh'hUg_ž YWhi fYfg'a UmU`gc'WcbhYl hi U`]gY'UbX#cf'Ua YbX'h\YgY'gdYWJZ]WWf]hYf]U"'H\Y'fYWca a YbXYX'[fUXY']g hYbhUhji Y'cb`mžgi VYWhic'ghUbXUfX]gUhjcb'dfcWrggYg'UbX'Uddfcj U``Vmh\Y'GW\cc``cZ9Xi WUhjcb'@YUfb]b[UbX'HYUW\]b['7ca a]hYY"

>i `m	

7 ca di `gcfmfYUX]b[g·Zcf'cb`]bY'k cf_g\cd'(

- 6fUXmžA "`D"ž<Y]gYfž@"5"žA W7cfa]W_ž>"`?"ž/ :: cf[Ubž'>"`f&\$%*Ł"`J U`i Y!5XXYX`A cXY`g`Zcf HYUWXYf`DfYdUfUh]cb`Dfc[fUa g. `J U`]X]miUbX`F Y`]UV]`]miH\fYUhgž'UbX`U`A UbU[YUV`Y`5`hYfbUh]j Y"` YV 7Uf TReZ _R] 8` df ^ ł *" f1 ½"' ' -!') &"`Xc].%\$"%\$, \$#\$\$% %+&) "&\$\%*"\%+' %) \$

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 UmUdd'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 Uhjcbicbi\ckihcigi Va]hUgg][ba Ybhgicbi]bYij]UiA ccXiY.i\hdg.#gh XYbhi 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=hWbihU_Yia Ubm Zcfa qžZfca iXYi]VYfUhYiWXYUh]b[ihciUWW]XYbhU`mWcdm]b[iZfca iUiqci fWYk]h\ci hUW bck iYX[Ya Ybh'

IBGK [fcidgdu[]Uf]ga]bhch\YZc``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 hcf']XYU'k]h\ci hUW_bck `YX[]b['h\Y gci fW'cf'i g]b['ei chUh]cb'a Uf_g"'H\]g']bWi XYg'Wcdm]b['a UhYf]U`gž']XYUg'cf'WcbW'dhg'Zfca 'U'Vcc_ž'Ufh]WYž fYdcfhcf'ch\Yf'k f]hhYb XcW a Ybhz'dfYgYbhUh]cbž'Wca dcg]h]cbž'Uffk cf_ž'XYg][bž'XfUk]b[ž'WfW]hfmž'Wca di hYf dfc[fUa 'cf'gcZk UfYž'k YVg]hYž']bhYfbYhz'ch\Yf'Y`YWfcb]WfYgci fW'z'cf'Ubch\Yf'dYfgcbfg'Ugg][ba Ybhk]h\ci h Uddfcdf]UhY'UW_bck `YX[Ya Ybh''

Duddfcdf]UhY dufud\fug]b[...7\ub[]b[...12\k...k.cfXg.UbX.d\fugYg.k.\]Y a cghmfYhJ]b]b[...h\Y.cf][]bU`]bZcfa Uh]cbžghfi Wh fY UbX#cfdfc[fYgg]cb.cZ]XYUg.cZh\Y.cf][]bU`k]h\ci hUW_bck `YX[Ya Ybh'.H\]g.U`gc Udd`]Yg.]b`dfYgYbhUh]cbg`k \YfY gca YcbY dufUd\fugYg.Ubch\Yf'g.]XYUg.cf`k cfXg`k]h\ci h`WfYX]h`UbX`hc d]YW]b[...hc[Yh\Yf'ei chYg.UbX.dUfUd\fugYg.]bhc.U`bYk `k\c`Yžk]h\ci h`Uddfcdf]UhY`fYZYfYbW]b[...hc]

7c``i g]cb. K cf_]b[k]h ch\Yfg'Vi hdUgg]b[cZh\Yk cf_'Ug'U'dYfgcb'g']bX]j]Xi U``k cf_"'7c``i g]cb'U`gc]bWi XYg'dfcj]X]b['mci f'k cf_'hc'Ubch\Yf'ghi XYbhZcf'h\Y'di fdcgY'cZh\Ya 'd`U[]Uf]g]b[ždUm]b['Ubch\Yf'dYfgcb'hc'dYfZcfa 'Ub'UWUXYa]Whuq_ž'ghYU`]b['cf'UWei]f]b['Ubch\Yf'dYfgcb'g'UWUXYa]Wk cf_'UbX'Wcdm]b[

5 WUXYa]W = b Zcfa Uh cb

8 i Y'hc'Yj c'j]b['UXj]\W'\VmBGK '<YU'h\ž'ghi XYbhg'a i gh\\X\Y_'\Zcf'i dXUh\Y\'\]b\Zcfa Uh\cb'fY[UfX]b['cb`]bY 'YUfb]b['\Zcf'U``'5fhgž'8Yg][b'\UbX'5f\\X]h\Y\\footnoornighi fY'\\cb' fgYg'h\]g'\h\fa 'fj]\U'A ccX`Y'cf'\\cho' fgY']b\Zcfa Uh\cb dfcj]\XYX''\z

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

- fYei Yghg 'Zcf'Yl hYbg]cb/
- `UhY`gi Va]gg]cbg`[i]XY`]bYg/
- fYi]Yk 'cZa Uf g/
- I BGK '< YU`h\ 'UbX'GUZYhm'dc`]W[Yg/
- YI Ua]bUhcb dfcWXi fYg/
- gdYWJU``Wcbg]XYfUhJcb']b'h\Y'Yj YbhcZ]``bYgg'cf'a]gUXj Ybh fY/
- gh XYbhYei]mUbX X]gUV]`]m/
- UbX'ch\Yf'YggYbhJU''UWUXYa]W]bZcfa UhJcbž'gYY

\hdg.#kkk"ibgk"YXi"Ui#Ufhg!XYg][b!UfW\]hYWhifY#ghiXYbhi`]ZY#fYgcifWYg!giddcfh#dfchcWc`g![i]XY`]bYg

a U[Y'7fYX]h

GmbYf[]Yg^]b^GcibX^&\$%*

7F = 7CG

7 F = 7 C G 'Dfcj]XYf'7 cXY. '\$\$\$-,;