

EDST6776

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HYfa `&Z&\$&&



7 ci fgY`Cj Yfj]Yk

GhJZZ'7 cbhJWñ'8 YhU]`g

7 cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]m	@cWñhcb	D\cbY
A cb]Wñ'6cUfXa Ub	a "VcUfXa Ub4 i bgk "YXi "Ui	6m5ddc]bñ Ybh		

GW\cc`7 cbhJWñ'ñZcfa Uh]cb

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5fñgž'8 Yg][b'UbX'5fW\]ñWñ fY

; fci bX: `ccfž'A cfj Yb'6fck b'6i]X]b['fi &\$Ł

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9. YXi Wñhcb4 i bgk "YXi "Ui

K . \ñtdg.##k k k "Ufñg"i bgk "YXi "Ui #YXi Wñhcb

5W_bck`YX[Ya YbhcZ7ci blfm

I B G K `5fngž8Yg][b`UbX`5fWk]fYWhi fY? Ybg]b[hcb`UbX`DUXX]b[hcb`Wla di gYg`UfY`Vi]hcb`5Vcf][]bU`
@UbXg"K Y`dUmci f`fYgdYWhg`hc`hY`6]X}[U`UbX` ; UX][U`dYcd`Yg`k`c`UfY`hY`7i`gfcX]Ubg`cZ`hY`gY`UbXg"
K Y`UW_bck`YX[Y`hY`5Vcf][]bU`UbX`Hc`fYg`G`fU]h`g`UbXYf`dYcd`Ygž`hY` :]fgh5i`gfcU`Ubgžk`c`gY`UbXgž
k]bXg`UbX`k`U`fYg`k`Y`U`bck`g`UfYž`UbX`dUm`fYgdYWhi`hc`hY`f`i`b]ei`Y`j`U`i`Ygž`UbX`hY`f`V`b`h]bi]b[`UbX
YbXi`f]b[`W`h`fYg`k`\\W`XYYdYb`UbX`Yb`f]W`hY`Z`cZci`f`b`U`h`cb`UbX`W`a`a`i`b]h`Yg`"

U[Y`W`ci`f`h`g`m`c`Z`h`Y`C`Z]W`c`Z`h`Y`D`f`c`J`]W`!`7`Ub`W`c`f`b`X][Ybci`g`[L`B`G`K`f`g`b`X\]\[Ybci`g`g`f`U`h`\[`m](#)

7ci fgY'8YHJ`g

I b]hg'cZ7fYX]h*`

K cf_`cUX

%) \$` \ci fg]bWl X]b[`WUgg`WcbhUW\ci fgžfYUX]b[gžWUgg`dfYdUfU]cbžUggYgga YbhžZc`ck`i d`UW]j]hYgž YHW

Gi a a UfmcZ`hY`7ci fgY

Yž ž R Yj ScZU T` fcdVž;ež ž RgRZRS]V è S` èf`_UVcRUF ReV R_U a` dèXcRUF ReV def UV_èž YV T` fcdV T` _èV`è UV]žVg R_U RddVd^ V_èh ž] SV žUV_èZ] WcS` èf` Xc` fad` Wèf UV_èž

è`h]g`Wèi fgYžmci`k]`YUfb`\ck`hc`hYUW`J]gi U`5fmg`UhUb`UXj UbW`X`Yj Y`]b`gYWèbXUfmWèbH] hg`Mci k]`i gY`fY`Yj Ubhgm`UVi g`XcW`a Ybhg`hc`XYj Y`cd`]bbcj Uhj Y`UbX`Yb[U[]b[`Yggcb`d`Ubq`UbX`W`ff]W`i a d`Ubq`Mci`k]`YUfb`UbX`dfUW]gY`U`fUb[Y`cZ`hY`UW]b[`ghfUHY[]Yg`h`Uha`U] ja]gY`h`Y`YUfb]b[`dch`bh]U`cZ U`hmdYg`cZ`YUfbYfg]b`U`gUZžgi ddcf]j YžUbX`\[`mYb[U[YX`WUggfcc`a`Ybj]fcb`a`Ybh`Mci`k]`XYg][b žcf`UbX`]a`d`Ya`YbhYUW]b[`ghfUHY[]Yg`h`Uha]bWèf`dc`fUHY`X][]hU`UbX`ch`Yf]bbcj Uhj Y`ghfUHY[]Yg`Mci`k]` U`gc`YUfb`UVci hU`fUb[Y`cZ`UggYgga YbhUbX`ZYXVUW`ghfUHY[]Yg`]b`h`Y`X]gW]d`]bYžk]h`U`Zc`W`g`cb UggYgga Ybh]b`h`Y`gYb]cf`gYWèbXUfmW`cc`"

7ci fgY`@YUfb]b[`Ci hW`a Yg

%` ðYbh]žmYggYbh]U`Y`Ya Ybhg`cZ`hY`B`9G5`J]gi U`5fmg`Gm`UVi gžUbX`ghfUHY[]Yg`hc`gi ddcf]ghi XYbhg Ug`h`Y`mf`Ubg]h]cb`VY`k`Y`b`g`hU[Yg
&` I` gY`ghfcb[`_bck`YX[Y`cZgi V`Y`W`h`Wèb`h`b`h`c`d`Ub`UbX`Yj U`i`UH`Wè`Y`f`Y`b`ž`[cU`!`cf]YbhYX`UbX W`U`Y`b[]b[`Yggcbgž`Yggcb`gYei YbW`g`UbX`h`Y`UW]b[`dfc[fUa`g`k` \]W`k]`Y`b[U[Y`U`gh] XYbhg
'` " GYhUW]Yj UV`Y`YUfb]b[`ci`hW`a`Y#]bh`bh]cbg`hc`a`U`h`W`Wèb`h`b`ž`h`Y`UW]b[`ghfUHY[]Ygž`f`Y`gci`f`W`g`UbX X]ZY`f`bh`md`Yg`cZ`UggYgga Ybhžcf`U`i`b]hc`Zk`cf`_]b`J]gi U`5fmg
(` Dfcj]XY`W`Y`Uf`X]f`Y`W]cbg`hc`cf[Ub]gY`UbX`gi ddcf]hd`f`Y`d`U`f`Y`X`U`W]j]hYg`UbX`i`gY`f`Y`gci`f`W`g
)` 5ggYgg`UbX`f`Y`dcf]h`cb`gh`XYbh`YUfb]b[`]b`J]gi U`5fmg`hc`U`_`Y`mg`hU`_`Y`c`XYfg
*` ðYbh]žm`h`Y`W`U`f`U`W`f`]g]h]g`cZ`Ub`Y`ZY`W]j`Y`J]gi U`5fmg`h`Y`UW]Yf`UbX`h`Y`gh`UbX`U`f`X`g`cZ`dfc`Z`Y`gg]cb`U`df`U`W]j`W`]b`h`Y`UW]b[žYgdYW]U`m`h`Y`U`h]Vi`h`Y`g`cZ;`f`UXi`UH`h`Y`UW]Yfg

5i ghfU`]Ub`DfcZYgg]cbU`GHJbXUfXg`žcf`HYUW`Yfg

GHJbXUfX		5ggYgga Ybhž
%"%"%	8Ya cbghfUHY`_bck`YX[Y`UbX`i`bXYfghUbX]b[`cZd`m]Wèž gcW]U`ž`UbX`]bh`Y`W`i`U`XYj Y`cda`YbhUbX`W`U`f`U`W`f]gh]Vg`cZ gh`XYbhg`UbX`\ck`h`Y`gY`a`Um`U`ZY`W`h`Y`Ufb]b[†
%`&`%"	8Ya cbghfUHY`_bck`YX[Y`UbX`i`bXYfghUbX]b[`cZ`f`Y`g`Y`U`f`W`]b`hc`\ck`gh`XYbhg`YUfb`UbX`h`Y`]a`d`]W]h]cbg`žcf`h`Y`UW]b[†
%`" `%"	8Ya cbghfUHY`_bck`YX[Y`cZ`h`Y`UW]b[`ghfUHY[]Yg`h`U`h`U`f`Y`f`Y`g`d`c`b`g]j`Y`hc`h`Y`Y`Ufb]b[`ghfYb[]h`g`UbX`b`Y`Y`X`g`cZ`gh`XYbhg žca`X]j`YfgY`]b[i]gh]Vgž`W`h`f`U`ž`f`Y][]ci`gž`UbX gcW]c`Y`Wè`bca]WVUW_[fci`b`Xg	%ž`&

f 7cj YfYX'Xi f]b['hY'Wci fgY

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%'GWŁdY'UbX'gYeI YbWŸ	(\$i	\$&#\$, #&\$&&'\$) .\$\$'DA	&ž' ž'(ž)
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7 fYUHŸ'U'gWŁdY'UbX'gYeI YbWŸž]bWŸ X]b['YUfb]b['ci hŸa YgžWŁj Yf]b['%\$'k YY_g'Zcf'U'MŸUf'%%dfY'ja]bUfm
WUgg"DfYdUfY'Ub'UggYgga YbhUg_ hUhx]fYWŸm']b_g'hc'hŸY'hŸUWŸ]b['UbX'YUfb]b[']bh]cbg'Zcf'hŸY
hŸfa 'g'k cf_'-bX]WŸh] Y'Yb[h. '&\$&\$'k cfXg"

5 ZYXVUW_g\YYhk]'VY'dfcj]XYX"

5XX]h]cbU'XYHJ]g

D5F H%'7 fYUHŸ'U'gWŁdY'UbX'gYeI YbWŸž]bWŸ X]b['YUfb]b['ci hŸa YgžZcf'U'MŸUf'%%dfY'ja]bUfnt'J]gi U'
5ftg'WŁi fgY'"

D5F H'&'7\ccg]b['Zca 'CB9'i b]hZca 'mci f'GWŁdY'UbX'GYeI YbWŸždfYdUfY'U'WŁa V]bYX'UggYgga Ybh

7 UgY'gh Xm% 'Dck Yf

GdYwZ]W7 f]hYf]U	11fŁ ————— 2fŁŁ				
<p>YUfb]b[`dfc[fYgg]cb</p> <ul style="list-style-type: none"> Dfcj]XYg`WYUf`X]fYW]cb`UbX`]bgfif W]cb`]b`h`Y`hUg_žfi Vf]WUbxZYXVUW_ 					
<p>DfYgYbH]h]cb`cZfYgdcbgY`UWw`fX]b[`hc`Uddfcdf]UHy`UWUXYa]WUbx`]b[i]gh]Ww`bj Ybh]cbg</p> <ul style="list-style-type: none"> K f]hYg`i g]b[`W`ffYWh]GHUbXUfX`5i ghU]Ub`9b[`]g\ < Ug`dfccZfYUX`UbX`YX]hYX`k cf_`hc`Uj c]X`mdcg`UbX`]bW`ffYWh i gU[Y 					

F1 6F 7 # 998657? 'G<99H

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<p>Gf]i W]i fY`UbX`cf[Ub]gUh]cb`cZfYgdcbgY</p> <ul style="list-style-type: none"> • 8Ya cbghfU]g`UV`]m]lc`d`Ub`i`g]b[`VUW_k UfX`a Udd]b[`hc`a YYh gY`YW]X`ci h]a Yg • DfYgYb]Uh]cb`cZYZYW]j Y`UbX`Yb[U[]b[`YUfb]b[`gYei YbW] • 9a VYXg`fY`Yj UbhUfk cfX`YI Ua d`Yg 					
<p>DfYgYb]Uh]cb`cZfYgdcbgY`UW]cfX]b[`hc`Uddfcdf]U]h`UW]XYa]WUbX`]b[i]gh]W]cbj Yb]cbg</p> <ul style="list-style-type: none"> • K f]h]g`i`g]b[`W]ffYW]G]H]bXUfX`5i ghU`]Ub`9b[`]g\ 					

F Ygci fWg

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Mci`UFY`fYei]fYXžZcf`h\]g`Wci fgYžUbX`]b`hY`Z hi fYžhc`Uj Y`Wcd]Yg`cZhY`gm`UVi g`XcW a Ybfg" `#i]g`\][\`m
fYWca a YbYX`hUhmc i`df]bhi`hYa`mci fgY`Z`

- 5i ghfU`]Ub`7i ff]W`i a ž5ggYgga Ybž`UbX`F Ydcfh]b[`5i h\cf]mf575F 5L`f&\$\$-L` YRaV` WæV
3f dæR]R_ 5f cZf]f`^, YV 3æ" GmXbYmžBGK ž5i ghfU`]U. 575F 5"

Gi Va]gg]cb 'cZ5ggYgga YbhiHUg_g

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≠mci 'YbWci bHYf'U'dfcV'Ya 'k \Yb'UHYa dh]b['hc'gi Va]hirci f'Ugg][ba YbhiHfci [\ 'Hi fb]h]bž'd'YUgY
HY'Yd\cbY'9I HYfbU'Gi ddcfhcb'- ' ,) " ' ' %cf'Ya U] 'HYa 'cb'YI HYfbU'HY'gji ddcfh4 i bgk "YXi "Ui "'Gi ddcfh
\ci fg'UfY' , .\$Ua '—%\$. \$\$da 'cb'k YY_XUmg'UbX'-. .\$Ua '—) . \$\$da 'cb'k YY_YbXg'f1 *) 'XUmg'U'mYUfL" ≠mci
UfY'i bUVY'hc'gi Va]hirci f'Ugg][ba YbhiXi Y'hc'U'ZJi 'hk]h'Hi fb]h]b'mci 'a UmiUdd'mZcf'Ub'YI HYbg]cbž'Vi hirci

5 WUXYa]W< cbYgmiUbX'D`U[]Uf]ga

D`U[]Uf]ga]g`i g]b[`hY`k cfXg`cf]XYUg`cZcH.Yfg`UbX`dFYgYbh]b[`hYa `Ug`mci f`ck b" #WUb`hU_Y`a Ubm
Zcfa gZ`Zca `XY`]VYfUH`WXYUH]b[`hc`UWYXYbhU`mWcdm]b[`Zca `U`gci fW`k]h`ci hUW_bck `YX[Ya Ybh`

I BGK ` [fci dg`d`U[]Uf]ga `]bhc`hY`Zc`ck]b[`WUHY[cf]Yg.

7cdm]b[.`I`g]b[`hY`gUa Y`cf]j Yfmg]a]Uf`k cfXg`hc`hY`cf][]bU`hYI hcf]XYU`k]h`ci hUW_bck `YX[]b[`hY`
gci fW`cf`i g]b[`ei chU]cb`a Uf_g`"H\]g]bW`i XYg`Wcdm]b[`a UHYf]U`gZ]XYUg`cf`WcbW`dHg`Zca `U`Vcc`Z`Ufh]WY`Z`
fYdcfhcf`chYf`k f]HYb`XcW`a YbZ`dfYgYbhU]cbZ`Wca`dgc]h]cbZ`Ufh`cf`Z`XYg][bZ`XfUk]b[Z`W]fW]fmx`Wca`di`hYf`
dfc[fUa `cf`gcZk UfY`Zk YVg]hY`Z]bHYfbYhZ`chYf`Y`YVW`fcb]WfYgci fW`Z`cf`UbchYf`dYfgcb`fj`Ugg][ba Ybhk]h`ci h`
Uddfcd]UHY`UW_bck `YX[Ya Ybh`

#Uddfcd]UHY`dUfUd`fUg]b[.`7`Ub[]b[`U`Zk`k cfXg`UbX`d`fUgYg`k`Y`a`cghmifYU]b]b[`hY`cf][]bU`
]bZcfa U]cbZ`gh`i W`i fY`UbX`#cf`dfc[fYgg]cb`cZ]XYUg`cZcH.Y`cf][]bU`k]h`ci hUW_bck `YX[Ya Ybh`H\]g`U`gc`
Udd`]Yg`]b`dfYgYbhU]cbg`k`YfY`gca YcbY`dUfUd`fUgYg`UbchYf`g]XYUg`cf`k cfXg`k]h`ci hW`YX]hUbX`hc`
d]YW]b[`hc[YhYf`ei`chYg`UbX`dUfUd`fUgYg]bhc`U`bYk`k`c`Y`Zk]h`ci hUddfcd]UHY`fYZYfbW]b["

7c`i`g]cb.`K`cf_]b[`k]h`chYfg`Vi`hdUgg]b[`cZcH.Y`k`cf`_`Ug`U`dYfgcb`g`]bX]j]Xi`U`k`cf`_`7c`i`g]cb`U`gc`
]bW`i XYg`dfcj]X]b[`mci`f`k`cf`_`hc`UbchYf`gh`XYbhZ`f`hY`di`fdcgY`cZcH.Ya`d`U[]Uf]g]b[Z`dUm]b[`UbchYf`
dYfgcb`hc`dYfZcfa `Ub`UWUXYa]W]Ug`Z`gh`U`]b[`cf`UW`ei]f]b[`UbchYf`dYfgcb`g`UWUXYa]Wk`cf`_`UbX`Wcdm]b[

5 WUXYa]WbZcfa Uh]cb

8i Y`tc`Yj`c`j`]b[`UXj`]W`VmiBGK` `<YU`h`z`gh` XYbh`g`a` i` gh`WXYW`_`Zc`f`i` dXU`h`X``]bZcfa` Uh]cb`fY[`UfX]b[`cb`]bY`
`YUfb]b[`Zc`f`U`~`5`fng`z`8`Yg][`b`UbX`5`fW`X`]h`W`h` fY`W`e`i` fgY`g`h`g`h`f`a` `fj`]U`A` ccX`Y`c`f`W`e`i` fgY`]bZcfa` Uh]cb`
dfcj`]XYX`"Ł

: cf`YggYbh]U`gh` XYbh`]bZcfa` Uh]cb`fY`Uh]b[`tc.

- fYei` Yg`hg`Zc`f`YI` h`bg]cb/
- `UH`gi` Va`]gg]cbg`[`i`]XY`]bYg/
- fYj`]Yk` `cZa` Uf_g/
- I` BGK` `<YU`h` `UbX`GUZ`h`mdc`]W`Yg/
- YI`Ua`]bUh]cb`dfc`W`X`i` fYg/
- gdY`W`U` `W`e`bg]XY`f`Uh]cb`]b`h`Y`Yj` Ybh`cZ`]`b`Ygg`c`f`a`]gUXj` Ybh` fY/
- gh` XYbh`Yei`]m`UbX`X]gUV`]m/
- UbX`c`h`Y`f`YggYbh]U`U`WUXYa`]W]bZcfa` Uh]cb`z`g`YY

\h`dg.`#k` k`k` "i` bgk` "YXi` "Ui` #U`fng`!`XYg][`b!`U`fW`X`]h`W`h` fY`#`gh` XYbh`]Z`#`Y`gci` fW`g!`gi` ddc`f`h`#`d`f`c`h`W`e`g!`[`i`]XY`]bYg`

⇒ U[Y`7` fYX]h

GmbYf[]Yg`]b`Gci` bX`&\$%*`

7F ⇒ CG

7F ⇒ CG`Dfcj`]XYf`7`cXY`.\$\$\$`-` ;`