



LING5024

H\Y`Gci bX`GmgHya `cZ9b[`]g\

HYfa `H\fYY`##`&\$&\$

7ci fgY'8YHJ]`g

7fYX]hDc]bmg`*`

Gi a a UfmicZ`h`Y'7ci fgY

ᄃ`h`jg`Wᄃi fgYžmci `k`j`YI d`cfY`h`Y`dU`H`Y`fbg`cZgdc`Yb`9b[`]g\`"Mci `k`j`Z`fghYI Ua]bY`h`Y`Z`cfa U`h`cb`c`Z`gci bXg`UbX`h`Y`gci bXg`h`Uha U`Y`i`d`h`Y`9b[`]g\`gci bX`gmg`h`Ya "Mci `k`j`h`Yb`Vi]X`Z`ca `g]b[`Y`gci bXg`h`c`h`Y`Wᄃa V]bU`h`cb`c`Zgci bXg`]b`c`gm`UV`Yg`UbX`h`Y`fc`Y`c`Zgm`UV`Yg`]b`9b[`]g\`f`l`nt`h`a ž`h`U`h`]gž`h`Y`a`Y`c`X]W`Wᄃb`h`ci`f`c`Zg`Y`b`h`Y`b`W`Y`g`"Mci `k`j`U`gc`YI Ua]bY`h`Y`Wᄃb`g`h`fi W`h`cb`c`Zk`c`f`Xg`Z`ca `gci bXg`UbX`h`Y`Wᄃa V]bU`h`cb`c`Zk`c`f`Xg`]b`c`d`f`Ug`Yg`UbX`g`Y`b`h`Y`b`W`Y`g`":]bU`mž`mci `k`j`YI d`cfY`k` \U`h`h`U`_Yg`d`U`W`U`V`c`j`Y`h`Y`gci bXgž`h`U`h`]gž`U`W`W`b`h` U`h`cb`UbX`]b`c`b`U`h`cb`]b`V`c`h`Z`cfa U`UbX`Wᄃ`cei]U`Wᄃb`h`fi`h`g`"H`j`g`Wᄃi fgY` \Ug`U`dd`]W`h`cb`g`Z`c`f`]b[i]g`h`k` \c`Y`j` U`i`U`h`Y`UbX`U`b`b`c`h`U`h`g`dc`_`Yb`Ub[i U[Y`X`U`h`U`]b`Ub[i U[Y`#]b[i]g`h`W`g`]b`Xi`g`h`]Y`gž`]b`h`Y`f`d`f`Y`h`Y`f`g`k`c`f`_`b[`]b`a`i`h`]b[i U`g`Y`h`]b[g`k`]h`9b[`]g\`g`d`Y`U`_Y`f`gž`h`U`W`Y`f`g`c`Z`9b[`]g\`U`g`U`g`Y`Wᄃb`X`Ub[i U[Yž`UbX`h`c`g`Y`k` \c`k`]g`h`c`_`b`c`k`a`c`f`Y`U`V`ci`h`9b[`]g\`d`l`c`b`Y`h`W`g`UbX`d`l`c`b`c`c[m`

7ci fgY`@YUfb]b[`C`i`h`Wᄃa`Yg

%`XYg`W`f`]Y`Y`h`Y`_`Y`m`Z`U`h`f`Y`g`c`Z`h`Y`9b[`]g\`gci bX`gmg`h`Ya`]b`W`i`X]b[`U`W`W`b`h`i`U`h`cb`UbX`]b`c`b`U`h`cb`&`Ub`U`mg`Y`]b[i]g`h`W`X`U`h`U`UbX`U`f[i Y`h`Y`a`Y`f`]h`g`c`Z`h`U`h`U`b`U`mg`]"`Wᄃa`d`U`f`Y`Wᄃ`cei]U`UbX`Z`cfa`U`d`U`H`Y`fbg`c`Zgdc`_`Yb`9b[`]g\`"

HYUW`X`]b[`G`h`f`U`h`Y`[]Y`g`

H`Y`Wᄃi fgY`]g`h`U`i [\h`U`g`U`k`Y`Y`_`m`h`f`Y`Y` \c`i`f`g`Y`a`]b`U`f`" <U`Z`c`Z`h`Y`g`Y`a`]b`U`f`d`f`Y`g`Y`b`h`g`h`Y`Wᄃb`W`d`h`i`U`_`b`c`k`Y`X[Y`c`Z`h`Y`d`U`H`Y`fbg`c`Zgdc`_`Yb`9b[`]g\`"ᄃ`h`Y`g`Y`Wᄃb`X` \U`Z`c`Z`h`Y`g`Y`a`]b`U`f`ž`mci `k`j`k`c`f`_`k`]h`g`d`Y`Y`W`g`U`a`d`Y`g`]b`k` \]W`X`mci `k`j`U`dd`m`h`Y`Wᄃb`W`d`h`i`U`_`b`c`k`Y`X[Y`h`c`h`Y`U`W`i`U`d`f`c`X`i`W`h`cb`UbX`Wᄃa`d`f`Y` \Y`b`g`]c`b`c`Zgdc`_`Yb`9b[`]g\`"

Gi Va]gg]cb'bcHfg.H\Y'dfYgYbHh]cbg'k]''VY'fcghYfYX']bfc'h\Y'gW\YXi`Y"

Hi fb]h]b'gYh]b[. 'H\]g'Ugg][ba Ybh]g'gi Va]hYX'h\fc i [\ 'Hi fb]h]b'UbX'gh XYbhg'Xc'bcHgYY'Hi fb]h]b
g]a]'Uf]mfYdcfHg"

5 hYbXUbW F Yei]fYa Ybhg

Gh XYbhg UfY gfhcb[mYbWci fU[YX'hc UhhYbX'U''WUggYg UbX'fYj]Yk ''YWhi fY'fYWcfX]b[g"

7 ci fgY'GWXYXi `Y

[J \]Yk WUgg'ha YhUVY](#)

H]a YhUV`Y`

8UhY	HmdY	7cbhYbh

		<p>DfcXi Wjcb`UbX`DYfWdhjcb</p> <p>: ck `YfZ7`"/`<ci gca ž>"f% , +L`HU`Yfg`g][bU`b[cZ`bYk`"UbX`"c`X`"k cfXg`]b`gdYYW`UbX`"ghYbYfg` dYfWdhjcb`UbX`i gY`cZ`h`Y`X]ghjcbWjcb`" <agd`S`^aX` ? W_`adk`S` V` >S` YgSYWZ`\$(ž(, -!) \$("</p> <p>.</p> <p>&"`C`j`Yfj`]Yk`cZbYI`hk`YY`_`g`fYUX]b[g. `F`YUX]b[`GYh`</p> <p>'`"``@YWh`fY. `7`cbj`YfgUhjcbU`DfcW`ggYg`]b`Gdc`_`Yb` 9b[`]g\`fDUfhi&t</p> <p>(``@UVcfUhc`fmk`cf_`</p> <p>.</p> <p>DcghYf`8Yg][b</p> <p>.</p> <p>\hdg.##k k k "mci h VY"Vta # UHW 3j 1%W? XSa l : 8A</p> <p>.</p> <p>)``Dfcj`]XY`UWVW`gg`hc`h`Y`h`Y`gh`Xi`Y`]b`k`YY`_(</p>
<p>K`YY`_`(`.`) `C`Wtc`VYf!`-` C`Wtc`VYf</p>	<p>5ggYgga`Ybh</p>	<p>B`c`ZJW`hc`ZJW`h`ci`fg`"H`Y`h`Y`gh`]g`Xi`Y`Vm`*`.\$`\$`d`"a`" cb`+h`C`Wtc`VYf</p>
	<p>F`YUX]b[</p>	<p>`bXYdYbXYbhk`cf`_"`5gg][`bYX`fYUX]b[`g`cb`"A`UH`Y`" UbX`"A`UH`Y`g`]"d"</p>
<p>K`YY`_`).`%&`C`Wtc`VYf!`%*` C`Wtc`VYf</p>	<p>F`YUX]b[</p>	
<p>K`YY`_`*`.`%-`C`Wtc`VYf!`&` C`Wtc`VYf</p>	<p>GYa`]bUf</p>	<p>%`"8`]gW`gg]cb`cZ`F`YUX]b[`GYh`</p> <p>.</p> <p>DfcXi Wjcb`UbX`DYfWdhjcb</p> <p>@]YVYfa`UbžD`"Gca`Y`YZY`Wg`cZgYa`Ubh]WUbX` [`fUa`a`Uh]W`"W`b`h`I`hcb`h`Y`d`fc`Xi`Wjcb`UbX` dYfWdhjcb`cZgdYYW`"i`>S` YgSYWS` V`E`bWUZI` (ž %+&!%`+"`</p> <p>.</p> <p>&"`C`j`Yfj`]Yk`cZbYI`hk`YY`_`g`fYUX]b[g. `F`YUX]b[`GYh`('`"``@UVcfUhc`fmk`cf_`</p>

Hfi a d'GdYYW\ DUHYfbg'fBY`Yj Y'a YŁ

[\hdg.##k k k "mci h VY"Vta # UHX3j.1Wdl.7., m>\[9](#)

[\hdg.##k k k "mci h VY"Vta # UHX3j.1d\gl. %j J < C E =](#)

		<p>hY`g!i g!UVci hYb[`]g\! b!Ui ghfU` U!+) &-)</p> <p>.</p> <p>(""C fU`dfYgYbUhc bg`Ug`fcghYfYX</p>
K YY_ ; . '&Bcj Ya VYf! '* Bcj Ya VYf	F YUX]b[
K YY_ - . - 'Bcj Ya VYf! % 'Bcj Ya VYf	GYa]bUf	<p>%" 8]gW gg]cb`cZF YUX]b[`GYh)</p> <p>.</p> <p>5WwYbHYX`GdYYWx</p> <p>< Uk h\cfbYz? "ž>Àfj]_j]ž>"ž/ `Hi W_Yfz`6" f&\$%`Ł"</p> <p>:]bX]b[`k cfX`Vci bXUf]Yg`]b`bX]Ub`9b[`]g\!</p> <p>UWwYbHYX`gdYYWx" <agd S^aXBZa` Wf[Uež` ((ž</p> <p>%(!)!%*\$"</p> <p>.</p> <p>Dc fFYHJžJ "žHi W_Yfz`6"ž/ `>Àfj]_j]ž>"f&\$%*`Ł" H\Y</p> <p>]bZi YbWw`cZ[fUX]YbhZc`fY][b`UWwYbHYXbYgg`UbX</p> <p>]ghYbYf`YI dYf]YbWw`cb`k cfX`fYWc[b]hcb" <agd S^aX</p> <p>BZa` Wf[Uež` *ž%&%"</p> <p>.</p> <p>&"C j Yfj]Yk`cZbYI hk YY_`g`fYUX]b[g`F YUX]b[`GYh*</p> <p>'`"@UvcfUhc fmk cf_</p> <p>.</p> <p>Dcg\`UWwYbHg</p> <p>.</p> <p>\hgdg.#\Ywcbj YfgUhc b"Wca #lcg\!UWwYbHg!</p> <p>XlgW]a]bUhc b!UbX!Ya d`cma Ybh]b!Ui ghfU` U!(`) &+</p> <p>.</p> <p>(""C fU`dfYgYbUhc bg`Ug`fcghYfYX</p>
K YY_ %\$. %* 'Bcj Ya VYf! &\$`Bcj Ya VYf	GYa]bUf	<p>%" 8]gW gg]cb`cZF YUX]b[`GYh*</p> <p>.</p> <p>M žK "ž/ `j Ub`< Yi j YbžJ "f&\$%+Ł" DfYX]W]b[`^ X[YX</p> <p>Zi YbWwncZWc bgYW hj`Y`]bhYfdYh]b[`Zca`UWc`i gh]W</p> <p>a YUgi fYg";` fWbdWf` Yž#ž` (+!*, "</p>

		<p>·</p> <p>&"@UVcfUhc fmk cf_</p> <p>·</p> <p>Dc`]h]WgUhc]cb`cZ9b[`]g\`DfcZ]WYbWm</p> <p>·</p> <p>\hdg.##\YVc]bj YfgUhc]b"Vca #\Y!dc`]h]WgUhc]cb!cZ]Yb[`]g\`Ub[i U[Y!dfcZ]WYbWm]bchdcciYb[`]g\!]hgY`Z VYUHYg!VUff]Yfg!- , (+)</p> <p>·</p> <p>@Ub[i U[Y`UbX`h\Y`>i gh]W`GmghYa</p> <p>·</p> <p>\hdg.##\YVc]bj YfgUhc]b"Vca #Ub[i U[Y!di hg!cfX]bUfm]dYcd`Y!UhU!X]gUXj UbhU[Y!b!h\Y!W]a]bU!↑gh]W! gmghYa !+- -' (</p> <p>·</p> <p>' "C fU`dfYgYb]h]cbg`Ug`fcghYfYX</p>
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F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

H\Y`Wèi fgY`fYUX]b[g`UfY`èi fbU`Ufh]WYg`Uj U]UV`Y`h\fcì [\`ì BGK` ``]VfUfm`

F YWca a YbXYX`F Ygci fWg

6cc_`-`Gci bX`DUh`fbg`cZ9b[`]g\`Vmi@]bXU`G`cW`Ym`6`UW`k Y``Di V`]g\Yfg"

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

Gi Va]gg]cb`cZ5ggYgga YbhiHUg_g

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

Ʒmci`YbWci bHYf`U`dfcV`Ya`k` \Yb`UH`Ya` dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`h`fci`[`\`Hi`fb]h]b`z`d`Y`UgY`
HY`Yd`cbY`9I`HYfbU`Gi`ddcfhcb`-`,`)`"``"``%cf`Ya`Uj`h`Ya`icb`YI`HYfbU`HY`hgi`ddcfh4`i`bgk`"YXi`"Ui`"Gi`ddcfh`
`lci`fg`UfY`,`.\$\$Ua`-`-%\$.\$\$da`icb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`icb`k`YY`YbXg`f1`*)`XUmg`U`mY`Uf2`Ʒmci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`Xi`Y`hc`U`Zi`h`k`]h`Hi`fb]h]b`mci`a`UmUdd`m`Zc`f`Ub`YI`HYbg]cb`z`Vi`hmc`i`
a`i`ghf`Y`h]b`mci`f`h]W`Y`hbi`a`VYf`Z`ca`9I`HYfbU`Gi`ddcfh`f`U`cb[`k`]h`Ubmc`h`Y`f`fY`Yj`Ubh`Xc`W`a`Yb`hg`L`hc`
]b`Wi`XY`Ug`Yj`]XYb`V`hc`gi`ddcfh`mci`f`YI`HYbg]cb`Udd`]W`h]cb`"Ʒmci`Ya`Uj`9I`HYfbU`Gi`ddcfh`mci`k`j`
Ui`hc`a`U`h]W`m`f`Y`W`j`Y`U`h]W`Y`hbi`a`VYf`z`Vi`h]Z`mci`HY`Yd`cbY`mci`k`j`b`Y`Y`X`hc`gd`Y`W`Z`W`m`Ug`_`Zc`f`cbY`"
Hi`fb]h]b`U`gc`d`fcj`]XYg`i`d`XU`h`g`cb`h`Y]f`gm`gh`Ya`g`h`U`h`g`cb`Hk`]h`Y`f`"

;`YbYfU`m`z`UggYgga`YbhiHUg_g`a`i`gh`VY`gi`Va`]h`Y`X`Y`Y`W`f`cb]W`m`j`]U`Y`]h`Y`f`Hi`fb]h]b`cf`U`A`cc`X`Y`
Ugg][`ba`Yb`h`h`b]bg`h`Ub`W`g`k` \Y`fY`h`g`]g`b`ch`d`c`g`g]V`Y`z`]h`k`]`VY`g`h`U`h`X`cb`mci`f`W`ci`fgY`g`A`cc`X`Y`g`]h`k`]h`
U`h`Y`fb`U`h]`Y`gi`Va`]gg]cb`X`Y`h]g`"

:`cf`]b`Z`fa`U`h]cb`cb`l`ck`hc`gi`Va`]h`Ugg][`ba`Yb`hg`cb]b`Y`j`]U`A`cc`X`Y`.`h`h`d`g`#`gh`XYb`h`i`bgk`"YXi`"Ui`#`ck`!
gi`Va`]h`Ugg][`ba`Yb`h`a`cc`X`Y`"

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`VX`YU]b[`hc`UWV]XYbhU`m`Wc`dm]b[`Zca`U`gci`fW`k`]h`ci`hUW`bck`YX[Ya`Ybh`

I`B`G`K`]`f`ci`dg`d`U[]Uf]ga`]b`hc`h`Y`Zc`ck`]b[`WUH`[`cf]Yg.

7`cdm]b[.`i`g]b[`hY`gUa`Y`cf`j`Yfmg]a`]Uf`k`cfXg`hc`h`Y`cf][`]bU`h`I`h`cf`]XYU`k`]h`ci`hUW`bck`YX[]b[`h`Y`
gci`fW`cf`i`g]b[`ei`c`h`h`cb`a`Uf`g`"H`g`U`gc`Udd`]Yg`hc`]a`U[YgZ`Ufh`UbX`XYg][`b`dfc`YWgZ`Ug`k`Y`Ug`
dfYgYbhU]cbg`k`YfY`gca`YcbY`dFYgYbh`Ubch`Yf`g`]XYUg`cf`k`cfXg`k`]h`ci`hWYX]h`

#Uddfcdf]UH`d`UfUd`fUg]b[.`7`U`b[]b[`U`Z`k`k`cfXg`UbX`d`fUgYg`k`Y`a`cghm`fY`hU]b]b[`h`Y`cf][`]bU`
gh`f`i`W`fY`UbX`#`cf`dfc[`fYgg]cb`cZ]XYUg`cZ`h`Y`cf][`]bU`Z`UbX`]bZcfa`U]cb`k`]h`ci`hUW`bck`YX[Ya`Ybh`H`g`U`gc`
Udd`]Yg`]b`dfYgYbhU]cbg`k`YfY`gca`YcbY`d`UfUd`fUgYg`Ubch`Yf`g`]XYUg`cf`k`cfXg`k`]h`ci`hWYX]h`UbX`hc`
d]YV]b[`hc[Y`h`Y`f`ei`c`h`g`UbX`d`UfUd`fUgYg`]b`hc`U`b`Y`k`k`c`Y`Z`k`]h`ci`hUddfcdf]UH`fY`ZY`fY`bW]b["

7`c`i`g]cb.`k`cf_]b[`k`]h`c`h`Y`fg`Vi`hdUgg]b[`cZ`h`Y`k`cf`_`Ug`U`d`Yfgcb`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`g`h`i`XYbh`VY`Zc`fY`h`Y`Xi`Y`XUH`Zc`f`Zc`f`h`Y`di`fdcgY`cZ`h`Ya`
d`U[]Uf]g]b[`Uh`Ubmi`h`a`Y`Z`dUm]b[`Ubch`Yf`d`Yfgcb`hc`d`Yf`Zcfa`Ub`UWUXYa`]W`hUg`_`Z`gh`U`]b[`cf`UW`i`]f]b[
Ubch`Yf`d`Yfgcb`g`UWUXYa`]W`k`cf`_`UbX`Wc`dm]b[]h`c`Z`Y`f]b[`hc`Wc`a`d`Y`h`Ubch`Yf`d`Yfgcb`g`k`cf`_`cf`gYY_]b[

- i bXYfgHUbX'mci f'f][\hg'UbX'fYgdcbg]V]hYg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'Wc'dmf][\hž' BGK 'Gh XYbh7cXY'cZ7cbXi W'Ubx'5W'Wd'U'V'Y'I gY'cZ
I BGK '⇒H'F Ygci f'W'g'Dc`]W'h
- VY'Uk UfY'cZ'Y'ghUbXUfXg'cZVY\Uj]ci f'YI dY'W'X'cZYj Yf'ncbY']b'h'Y'I BGK 'W'a a i b]m
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5 WUXYa]W**ϕ**Zcfa Uh]cb

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