

7ci fgY`Cj Yfj]Yk

GHJZ`7cbHJW`8YHJ]`g

7cbj Ybcfg

B Ua Y	9a Uj`	5j U]UV]`]m	@cW]hcb	D\cbY
5bXfYk `6YU]h]Y	U"VYU]h]Y4 i bgk "YXi "Ui	6mUddc]bha		

5ggYgga Ybh

5ggYgga YbhHUg_g

5ggYgga YbhHUg_	K Y][\ h	8i Y'8UH	Gh XYbh@YUfb]b[Ci hWta Yg'5ggYggYX
F YgdcbgYg'UbX'ei Ygh]cbg'cb h' hcf]U'fYUX]b[g'	&\$i	\$/#/\$#&\$&\$/\$-% #/0#&\$&\$ž \$, .\$\$'DA) ž*
9ggUmid'Ub'	%) i	&#/\$#&\$&\$ \$, .\$\$'DA	' ž(
h!WUgg'hYgh	&\$i	-% #/0#&\$&\$ \$%\$\$'DA	%ž&ž) ž*
F YgYUfW'9ggUmi	() i	&+ #/0#&\$&\$ \$, .\$\$'DA	&ž ž(ž)

5ggYgga Ybh8YHU]g

5ggYgga Ybh% F YgdcbgYg'UbX'ei Ygh]cbg'cb' h' hcf]U'fYUX]b[g

GHUfhXUH. 'K YY_ %

8YHU]g.

G] V'c['Ybhf]Yg'cj Yf'hY'Wci fgY'cZ'hY'hYfa žYUW'Wcbg]gh]b['cZa UI "'&\$ \$'k cfXg']bWi X]b['U'fYgdcbgY' h' U
ei Ygh]cb'cb'U'fYei]fYX'fYUX]b['UbX'U'X]gW'gg]cb'ei Ygh]cb": YYXVUW_ j]U]b!WUgg'X]gW'gg]cb'Ug'k Y''Ug
]bX]j]Xi U'Wta a Ybhg'UbX'a Uf_]b['fi Vf]WUhtk c' dc]bhg'Xi f]b['hY'hYfa ž]bWi X]b['UZ'f'gi Va]gg]cb'cZ'hY
žfghrk c'V'c['Ybhf]Yg"

Gi Va]gg]cb' bchYg. 9bhf]Yg'a i ghVY'dcghYX'cb'A ccX'Y VYžcfY'hY'fY'Yj Ubh] hcf]U''9UW'XUmicZ'UH
gi Va]gg]cb'žcf'Ub']bX]j]Xi U'Ybhfmk]''Wci bhUg'U'XUH'cZ'UH'gi Va]gg]cb'žcf'hY'k \c'Y'UggYgga Ybh]hYa ž
k]h'dYbU'hYg'Udd'm]b['Ug'ci h]bYX'UH'f']b'h.]g'7ci fgY'c'j Yfj]Yk "'žmci 'Xc' bchgi Va]hg] 'fYgdcbgYg'mci
k]''[YhnYfc'žcf'h.]g'UggYgga Ybh]hYa "'Mci 'a i ghgi Va]hYbhf]Yg'žcf'Uh''YUghrk c'cZ'hY'žfgh'h'fY' h' hcf]U'g"
h'UXX]h]cb'h'gi Va]h]b['hY'Ybhf]Yg'cb'A ccX'Y'df]cf'h' hY'fY'Yj Ubh] hcf]U'gžmci 'a i ghgi Va]h'mci f'žfgh
rk c'Ybhf]Yg'f]b'U'g]b['Y'K'cfX'žY'k]h'Xci V'Y'gdUW]b['L'hc'Hi'fb]h]b'j]U'A ccX'Y'Vm, da '%C'Wc'VYf'fk'YY_' 'ž
UbX'mci f'fYa U]b]b['žci f'Ybhf]Yg'f]b'U'g]b['Y'K'cfX'žY'k]h'Xci V'Y'gdUW]b['L'hc'Hi'fb]h]b'j]U'A ccX'Y'Vm, da ž
H\i fgXUm%'B'cj Ya VYf'fk'YY_'%žE"

Hi'fb]h]b'gYh]b[. H\]g'Ugg][ba Ybh]g'gi Va]hYX'h'fci [\ 'Hi'fb]h]b'UbX'gh XYbhg'WUb'gY'Y'Hi'fb]h]b'g'a]Uf]m
fYdcfmg"

5ggYgga Ybh& '9ggUmid'Ub

GHUfhXUH. '

@Yb[h. '%žžž'k cfXg'fž#'%\$i Ł

8YHU]g.

žžžž'k cfX'YggUmid'Ub']bWi X]b['UbbchUH'X'V]V]c[fUd\m': YYXVUW_ j]U]bX]j]Xi U'Wta a Ybhg'UbX'a Uf_]b[

fi Vf]W

Gi Va]gg]cb'bcH'g.Gh XYbhg'k Ubh]b['hc'dfcdcgY'hAY]f'ck b'YggUmhcd]Wg\ci 'X'WcbZf'k]h'hAY'Wcbj Ybcf]b'UXj UbW'UbX'bYXX'hc'\Uj Y'hAY]f'hcd]WwcbZ]fa YX'VmihAY'Wcbj Ybcf'Vm*da žH\i fgXUmž%) 'C'WcVYfž'hc Ybgi fY'hAY'ZYUg]V])micZ'hAY'hcd]W'C'hAYfk]gYž'hAYmk]'\Uj Y'hc'k f]h'cb'cbY'cZ'hAY'gYhYggUmiei Ygh]cbg"

Hi fb]h]b'gYH]b[. H\]g'Ugg][ba Ybh]g'gi Va]h'X'h'fci [\ 'Hi fb]h]b'UbX'ghi XYbhg'WUb'gYY'Hi fb]h]b'g]a]'Uf]m fYdcfng"

5ggYgga Ybh' . 'b!WUgg'hYgh

GHUfhXUHY . '

@Yb[h. 'W' '%\f

8YH]g.

⊖!WUgg'hYghcZUddfci]a UHY'mi%\ci f]bW X]b['g\cfhUbgk Yf'ei Ygh]cbg'UbX'U'a]b]!YggUm'Gh XYbhg fYW]j Y'U'a Uf_'UbX'WUb'fYei YghU'a Uf_]b['fi Vf]WUbX']bX]]Xi U'Wca a Ybhg"

Hi fb]h]b'gYH]b[. H\]g'Ugg][ba Ybh]g'gi Va]h'X'h'fci [\ 'Hi fb]h]b'UbX'ghi XYbhg'Xc'bcHgYY'Hi fb]h]b'g]a]'Uf]mfYdcfng"

5ggYgga Ybh(. 'F YgYUfW'9ggUm

GHUfhXUHY . 'Bch5dd]WUV'Y

@Yb[h. '&ž) \$\$'k cfXg'fž# '%\$i 7

8YH]g.

&ž) \$\$'k cfX'YggUm': YYXVUW_]]U']bX]]Xi U'Wca a Ybhg'UbX'a Uf_]b['fi Vf]W

H\]g'g'hAY'Z]bU'UggYgga Ybh]Ug_'Zcf'Uhh'YbXUbW' 'di fdcgYg"

Hi fb]h]b'gYH]b[. H\]g'Ugg][ba Ybh]g'gi Va]h'X'h'fci [\ 'Hi fb]h]b'UbX'ghi XYbhg'WUb'gYY'Hi fb]h]b'g]a]'Uf]m fYdcfng"

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

H\Y`YggYbh]U`k YY`mfYUX]b[g`k]`VY`Uj U]UV`Y`Y`YWfcb]WU`mhfci [\ `@Y[Ubhc#A ccX`Y""5XX]hcbU` fYgci fWg`k]`VY`Ubbci bWfX`UbX`a UXY`Uj U]UV`Y`j]U`A ccX`Y`Xi f]b[`hY`Wci fgY"

F YWca a YbXYX`F Ygci fWg

5`]ghcZfYWca a YbXYX`fYUX]b[g`]g`Uj U]UV`Y`cb`A ccX`Y"

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

: cfa U`ZYXVUW`]g[U`hYfYX`Zca`ghi XYbh]i g]b[`a m9I dYf]YbWf""Ghi XYbh]`Uj Y []j Yb`YI hfYa Y`mdcg]h] Y Yj U`i Uh]cbg`cZ`7cbZfcb]b[`hY`DUgh]b`7cbhYa`dcfUfm9i fcdY`]b`dfYj]ci g`mYUfg"K \Yb`]hk Ug`cZYfYX`]b &\$% ž]hg`Uj YfU[Y`gWefY`Zcf`cj YfU`ghi XYbh]Uh]gZUW]cb`k Ug)`"+`ci hcZ`*"H\]g`k Ug`Zca`U`j Yfm\][\ `-) i fYgdcbgY`fUf"

6X]j]Xi U`ghi XYbhWca a Ybh]`]bWi XYX`hY`Zc`ck]b[.

fH\]g`k Ug`cbY`cZ`hY`VYghWci fgYg`=\Uj Y`XcbY`]b`a m]ja Y`Uhi b]"9j YfmUgdYWhk Ug`]bhYfYgh]b[`Ub Yb`emUV`Y`-`hY`fYUX]b[g`k YfY`Yb[U[]b[ž`hY`h`hc]f]U`g`Wcbf]vi hYX`[fYUhmhc`a mi bXYfgh]UbX]b[ž`UbX`hY Uggygga Ybh`Y`dYX`a Y`Yb[U[Y`k]h`YUW`hc]d]Wk \]Y`U`gc []j]b[`hY`cddcfh`b]mhc`gdYW]U`]gY`]b`Ub`UfYU cZdUfh]W`Uf`]bhYfYghf

fGi Wk`U`[ccX`Wci fgY`gi dYf`]bhYfYgh]b[`k]h`fYU`mUddfcdf]UfY`fYUX]b[g`UbX`U`[fYUhwci fgY`ghfi Wk`fYž`= U`gc`fYU`m`cj YX`hY`UggYgga Ybh]g]XY`cZ`h]b[gf

fB`WUgg`X]gW`gg]cbg`k YfY`Yb[U[]b[ž`dYcd`Y`k YfY`UWk`U`m]bhYfYghYX`]b`hY`Wci fgY`UbX`X]X`hY`fYUX]b[gf

=U`gc`fi b`a mck`b`]bZcfa U`gi fj Ymg`hc`[U`hYf`a cfY`gdYW]Z]WZYXVUW`cb`UgdYWg`cZ`hY`Wci fgY`gi Wk`Ug Uggygga Ybh]`UbX`fYUX]b[g"=\Uj Y`Z]bYh`bYX`hY`UggYgga Ybh]`cj Yf`hY`mYUfg`]b`fYgdcbgY`hc`ZYXVUW` UbX`fYd`UWfX`fYUX]b[g`h`Ugh] XYbh]`UX`]XYbh]ZYX`Ug`Ygg`h`Ub`cd]ja U"

Gi Va]gg]cb`cZ5ggYgga YbhiHUg_g

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

≠mci`YbWci bHYf`U`dfcV`Ya`k` \Yb`UHYa` dh]b[`hc`gi Va`]hmc`i`f`Ugg][`ba`YbhiHfci`[`\`Hi`fb]h]b`z`d`YUgY`
HY`Yd\cbY`9I`HYfbU`Gi`ddcfhcb`-`,`)`"``"``%cf`Ya`Uj`h`Ya`icb`YI`HYfbU`HY`hgi`ddcfh4`i`bgk`"YXi`"Ui`""Gi`ddcfh`
\ci`fg`UfY`,`.\$\$Ua`-`-%\$.\$\$da`icb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`icb`k`YY`YbXg`f1`*)`XUmg`U`mY`Uf2`≠mci`
UfY`i`bUV`Y`hc`gi Va`]hmc`i`f`Ugg][`ba`YbhiXi`Y`hc`U`ZU`ihk`]h`Hi`fb]h]b`mci`ia`UmUdd`mZc`f`Ub`YI`HYbg]cb`z`Vi`hmc`i`
a`i`ghfYhU]b`mci`f`h]W`Yhbi`a`VYf`Zca`9I`HYfbU`Gi`ddcfhU`cb[`k`]h`Ubmc`h`Yf`fY`Yj`UbhXcW`a`Ybhtg`L`hc`
]bWi`XY`Ug`Yj`]XYbVW`hc`gi`ddcfhmc`i`f`YI`HYbg]cb`Udd`]W]h]cb`≠mci`Ya`Uj`9I`HYfbU`Gi`ddcfhmc`i`k`]`
Ui`hca`U]WU`mifYW]j`Y`U`h]W`Yhbi`a`VYf`z`Vi`h]Zmci`HY`Yd\cbY`mci`k`]`bYYX`hc`gdYW]Z]WU`mUg`Zc`f`cbY`
Hi`fb]h]b`U`gc`dfcj`]XYg`i`dXUH`g`cb`h`Y]f`gmghYa`ig`hU`h`g`cb`Hk`]hYf`"

;`YbYfU`mz`UggYgga`YbhiUg_g`a`i`ghVY`gi Va`]hYX`Y`YWfcb]WU`mj`]U`Y]h`Yf`Hi`fb]h]b`cf`U`A`ccX`Y`
Ugg][`ba`Ybhi`h`]bghU`bVW`g`k`\YfY`h`lg`]g`bchidcgg]V`Yz`]hk`]`VY`ghU`h`X`cb`mci`f`Wci`fgY`g`A`ccX`Y`g]h`k`]h`
U`HYfbU]h]`Y`gi Va`]gg]cb`XYhU]g`"

:`cf`]bZcfa`U]cb`cb`\ck`hc`gi Va`]hUgg][`ba`Ybhtg`cb`]bY`j`]U`A`ccX`Y`.\`hhdg`#gh`XYbhi`bgk`"YXi`"Ui`#ck`!
gi Va`]hUgg][`ba`Ybhta`ccX`Y`"

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

D`U[]Uf]ga `]g`i`g]b[`h`Y`k`c`f`X`g`c`f`]X`Y`U`g`c`Z`c`h`Y`f`g`i`U`b`X`d`f`Y`g`Y`b`h]b[`h`Y`a` `U`g`m`c`i`f`c`k`b`" `#`W`U`b`h`U`_`Y`a` `U`b`m`
Z`c`f`a`g`Z`Z`c`a` `X`Y`]V`Y`f`U`h`Y` `W`X`Y`U`h]b[`h`c` `U`W`W`Y`X`Y`b`h`U` `m`i`W`c`d`m]b[`Z`c`a` `U`g`c`i`f`W` `k`]h`c`i`h`U`W`_`b`c`k` `Y`X[`Y`a` `Y`b`h`

I`B`G`K` `[`f`c`i`d`g`d`U[]Uf]ga `]b`h`c` `h`Y` `Z`c` `c`k`]b[`W`U`h`Y`[`c`f]Y`g.

- i bXYfghUbx'mci f'f][\hg'UbX'fYgdcbg]V]h]Yg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'Wc'dmf][\hž' BGK 'Gh XYbh7cXY'cZ7cbXi W'Ubx'5W'W'dhUV'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 Yfmcby']b'h'Y'I BGK 'W'a a i b]m
- 'cW'W'h'gYfj]W'g'UbX']bZ'fa U]cb'UVci hl BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZ'Y'gY'UfY'Ug'k]''VY'ZJa]]Uf'hc'mci ž'c'h'Y'fg'k]''VY'bYk "'; U]b]b['U'gc`]X'i bXYfghUbx]b['cZU''h'Y
fY'UH'X'UgdY'W'g'cZ9@-G9'k]''\Y'd'mci 'a U_Y'h'Y'a cgh'cZ'mci f'gh X]Yg'Uhl BGK ""

[\h'hd.##gi V'Y'W'i \]X'Yg" \]VfUfm'i bgk "YXi "Ui #' \]gY#\]Vci h' \]gY](#)

5 WUXYa]W=Zcfa Uh]cb

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