8YGUbh]g/ [\$' - /g``5``][Uhcf`5`WUhfUn`. 7cbhfcjYfgm`6fYkg`CjYf`A][fUbh 8YhYbh]cb

: `cf]XU'd`Ubg`hc'Vi]`X'U'a][fUbh`XYhYbh]cb'WYbhYfž / eich/5``][Uhcf`5`WUhfUnž/eich/']b'h\Y'9jYf[`UXYgžgdUf_]b[WcbhfcjYfgm`cjYf`\iaUb'f][\hg`UbX'Ybj]fcbaYbhU``]adUWh"



8UXY!7c``]Yf`HfU]b]b[`UbX`HfUbg]h]cb`5]fdcfhž:`cf]XUž'IG5 !'=b`U`acjY`XfUk]b[`g\Ufd`Wf]h]W]ga`UbX`WcbWffbž':`cf]XU ; cjYfbcf`Fcb`8YGUbh]g`]g`dig\]b[`ZcfkUfX`k]h\`d`Ubg`Zcf`U WcbhYbh]cig`a][fUbh`XYhYbh]cb`WfbhYf`]b`h\Y`9jYf[`UXYgž'Udh`m b]W_bUaYX`5``][Uhcf`5`WUhfUn"`H\]g`ZUW]`]hmž`gYh`hc`f]gY`cb`U XYWcaa]gg]cbYX`U]fdcfh`g]hY`h\Uh``UW_g`Y`YWhf]W]hm`UbX`Xf]b_]b[kUhYfž`U]ag`hc`WfYUhY`id`hc`%\$ž\$\$\$`UWWcaacXUh]cb`gdUWfg`Zcf a][fUbhg`XYhU]bYX`Vm`=79`UbX``cWU```Uk`YbZcfWfaYbh"`K]h\`]b]h]U` d`Ubg`hc`\cigY`cjYf`%ž\$\$\$`]aa][fUbhg`]b`hYbhg`UbX`WcbhU]bYfg WcaY`giaaYf`&\$&)ž`h\Y`ZUW]`]hm`\Ug`VYYb`aYh'k]h\`k]XYgdfYUX cddcg]h]cb"

 $8 \text{ Ygd} h^{-1} + V UXa b ghfUhcb^{-2} b [h^{-1}]g^{-2} UW^{-1}h^{-1} dc fUfm$

Dc`]h]WU``: U``ci h`UbX`<ia Ub]hUf]Ub`=ggi Yg

7 B B "

H\Y`:`cf]XU`5hhcfbYm; YbYfU`ž'&Ja Yg`I h\a Y]Yfž'WU]a g`h\Uh`h\Y WYbhYf`U`][bg`k]h\`h\Y`]a a][fUh]cb`dc`]W]Yg`cZ'Zcfa Yf`DfYg]XYbh Hfi a d`UbX`W'ffYbh`8 < G`GYWfYhUfm?f]gh]`BcYa "`I bXYf`h\Y`d`Ubž h\Y`ghUhY`U]a g`hc`fUa d`i d`XYhYbh]cb`WUdUW]hm`bUh]cbk]XY`Zfca (%ž\$\$\$`hc`Uh``YUgh`%\$\$ž\$\$\$`VYXgž`U`dc]bh`i bXYfgWcfYX`Vm`bYk ZUW]`]hm`dfcdcgU`g`Uh`7Ua d`6`UbX]b[ž`U`BUh]cbU``; i UfX`hfU]b]b[WYbhYf`bYUf`&JW_gcbj]``Y"`H\]g`gYWcbX`WYbhYf`]g`YI dYWhYX`hc`UXX) ž\$\$\$`hYa dcfUfm`]a a][fUh]cb`VYXg`Vm`YUf`m`\$`mž`]``i ghfUhYX`Vm`

fYdcfhg"

8YGUbh]gʻ]gʻYa d`cm]b[ʻYa Yf[YbWn`Uk 'hc`gYW fY'h\Y'k Yh`UbX UfYU'Uh'U'fYXi WYX'df]WYž'k \]W\`fU]gYgʻYmYVfck gʻUa cb[``cWJ` cZZ]W]U`gʻUbX`UXj cWUhYg"`DfchYghgʻU[U]bgh'h\Y'ZUW]`]hm`Yfi dhYX'cb \$ bY`&&ž'cf[Ub]nYX'Vm`[fci dg`]bWi X]b[`:f]YbXgʻcZ'9j Yf[`UXYg UbX'h\Y'A]WWcgi _YY'hf]VYž'k \c`k cffm`UVci h'h\Y'Ybj]fcba YbhU`]a dUWh'cb'h\Y'fY[]cb gʻXY`]WUhY'YWcgmghYa "`BchUV`mž'h\Y Wcbghfi Wh]cb'g]hY']gʻ`cWUhYX'bYUf'hfUX]h]cbU``A]WWcgi _YY'UbX GYa]bc`Y'j]``U[Ygž'dfca dh]b[`U'gYf]YgʻcZ'ei Ygh]cbgʻUVci h'h\Y]a d`]WUh]cbgʻZcf``cWU``k]`X`]ZY'UbX'k UhYf`gmghYa gž'UgʻH]a Y

9a Yf[YbWmDckYfgUbX'9bj]fcba YbhU` 7cbWfbg

H\Y'd`Ubg'YbhU]``U'g][b]Z]WUbh']bjYghaYbhžYgh]aUhYX'Uh Uddfcl]aUhY`m'`()\$`a]``]cb'UbbiU``m"'<ckYjYfž'h\YfY'UfY'kcff]Yg h\Uh'h\]g'ZibX]b['Wci`X'X]jYfh':9A5'X]gUghYf'fY`]YZ ZibXg_hmd]WU``m'fYgYfjYX'Zcf'\iff]WUbY'U]X'UbX'Ugm`ia'gYY_Yf giddcfh_hckUfXg'h\]g'WcbhfcjYfg]U``]b]h]Uh]jYž'Ug'Ghihh[UfhYf BUWXf]WXhYb'fYdcfhg"'7f]h]Wgž']bWiX]b['8YacWfUhg'UbX'\iaUb f][\hg'UXjcWUhYgž'Uf[iY'h\Uh'h\]g'd`Ub'bch'cb`m'j]c`UhYg'ZYXYfU` `Uk'Vih'U`gc'dcgYg'g][b]Z]WUbh'\YU`h\'f]g_g'XiY'hc']hg'gkUadm giffcibX]b[g'UbX'h\Y'`cca]b['h\fYUh'cZ'\iff]WUbYg" gc`i h]cb`VYZcfY`XYdcfhUh]cbžh\Y`fYUWh]cb`Zfca `8Ya cWfUhg`UbX \i a Ub`f][\hg`UXj cWUhYg`\Ug`VYYb`ghUi bW\`m`bY[Uh]j Y"`7f]h]Wg W]hY`]bUXYei UhY`WcbX]h]cbg`]b`YI]gh]b[`ZUW]`]h]Ygž`]bWi X]b[`fYdcfhg cZ`]bgi ZZ]W]Ybh`ZccXž`k UhYfž`UbX`a YX]WU``WUfYž``YUX]b[`hc`WU``g`Zcf \i a UbY`hfYUha Ybh`cZ`a][fUbhgž`U`ghUbWf`YW\cYX`Vm`BUmbU ; i dhU`Zfca `h\Y`5a Yf]WUb`=a a][fUh]cb`7ci bW]`"

H\]g`\][\`mWcbhYbh]ci g`d`Ub`XcYg`bch`f gh`dfYgYbh`c[]gh]WU` W&U``Yb[Yg/]h`fU]gYg`gYf]ci g`\i a Ub]hUf]Ub`ei Ygh]cbg"`H\Y a U^cf]hm`cZ`a][fUbhg`UfY`bch`Wf]a]bU`gž`mYh`h\Y`W`ffYbh UXa]b]ghfUh]cb`Wcbh]bi Yg`hc`hfYUh'U```i bXcW`a YbhYX`]bX]j]Xi U`g Ug`gYf]ci g`cZZYbXYfg U`bUffUh]j Y`h\Uh`a Ubm`ZYY``]g Zi bXUa YbhU``m`i bZU]f"`H\]g``UW_`cZ`U`Wcbg]XYfYX`UddfcUW&`XfUk g Zfca `XYYd!gYUhYX`WcbWYfbg`fY[UfX]b[`\ck`a][fUbhg`UfY \UbX`YX"`8k][\h`6i ``UfXž`U`Zcfa Yf`GhUhY`GYbUhcfž`bchYX`h\Y dchYbh]U``XYj UghUh]b[`YZZYWhg`cb`h\Y`9j Yf[`UXYg`ZfU[]`Y `UbXqWUdY"

5g'h\Y'gi a a Yf`\YUhgʻi d'UbX'dfYdUfUh]cbgʻZcf'h\]gʻXYhYbh]cb WYbhYf'Wcbh]bi Yž'h\Y`cca]b[`\i ff]WUbY'gYUgcb'UXXg'Ub i bYI dYWhYX'i f[YbWm'hc'h\Y'g]hi Uh]cb"'H\Y': `cf]XU'8]j]g]cb'cZ 9a Yf[YbWm'A UbU[Ya Ybh`]gʻfYdcfhYX`m``Um]b['ci h'Yj UW'Uh]cb d`Ubgž'mYh'gca Y'YI dfYggʻXci VhgʻUVci h']hgʻWUdUV]`]hm'hc'fYgdcbX YZZYWh]j Y`m'hc'bUhi fU``X]gUghYfgʻUa]X'Xk]bX`]b['ZYXYfU``gi ddcfh"

H\Y`XYVUhY`giffcibX]b[`5``][Uhcf`5`WUhfUn `]g`acfY`h\Ub`U eiYgh]cb`cZ``c[]gh]Wg/`]hg`UVcih`h\Y`jU`iYg`:`cf]XU`W\ccgYg`hc id\c`X`k\Yb`]h`WcaYg`hc`a][fUbhg"`5g`hYbg]cbg`f]gY`UbX`cd]b]cbg WUg\ž`h\Y`Gibg\]bY`GhUhY`Z]bXg`]hgY`Z`Uh`U`WfcggfcUXg`]b]aa][fUh]cb`dc`]Wm UbX`h\Y`X]fYWh]cb`]h`hU_Yg`Wci`X`\UjY``Ugh]b[]ad`]WUh]cbg`Zcf`mYUfg`hc`WcaY"

8 Y hU]`g	
Cfh	8UXY!7c``]Yf`HfU]b]b[`UbX`HfUbg]h]cb`5]fdcfhž
	:`cf]XUžil G5
EiY``Yb	• k k k "ghi hh[UfhYf!bUW&f]W&hYb"XY
	• k k k "Wbb"Wca

6Ygi WXYb'G]Y'i bg'Ui Z.'a Y]b!k]Yb"bYh