## DUbh\Yfg`7`]bW\`6UW\_!hc!6UW\_`H]h`Ygž C]`Yfg`@YZh`<YUfhVfc\_Yb`5[U]b°

Ghi Ufh'G\_]bbYf'fYZYWhg'cb'h\Y'C]`Yfg⁄ [\$' - /'GhUb`Ym'7i d `cgg'hc'h\Y'DUbh\Yfgž'UbU`mn]b['\]g'dYfZcfa UbWY'UbX gYY\_]b[']a dfcj Ya Ybh"



5a YfUbh'6Ub\_'5fYbUž'Gi bf]gYž': `cf]XUž'I G5'!'Cb'is bY'%, ž &\$&) ž'h\Y': `cf]XU'DUbh\Yfg'WUdhi fYX'h\Y]f'gYWcbX'WcbgYW'h]j Y GhUb`Ym'7i d'Vm'XYZYUh]b['h\Y'9Xa cbhcb'C]`Yfg')!%']b'; Ua Y'\*'cZ h\Y'GhUb`Ym'7i d': ]bU`"'K ]h\'h\]g'j ]Whcfmž'h\Y'DUbh\Yfg'c]b'h\Y fUb\_g'cZ'h\Y'A ]Ua ]'8c`d\]bg'UbX'A ]Ua ]'<YUhž'a Uf\_]b['U g][b]Z]WUbh'UW\]Yj Ya Ybh'Ug'h\Y'cb`m'Gci h\': `cf]XU'hYUa g'hc'k ]b VUW\_!hc!VUW\_'h]h`Yg"'H\Y'A V]`Ubh'WY`YVfUh]cb'hcc\_'d`UWY']b'Zfcbh'cZ U'gY``ci h'Wfck X'Uh'5a YfUbh'6Ub\_'5fYbUž'k \YfY'd`UmYfg'fYj Y`YX cb'h\Y']WYž'WY`YVfUh]b['U'gYUgcb'YbWUdgi `UhYX'Vm'h\Y'g`c[Ub FY][b'FYX"

H\Y`C]`Yfgž`bck a cfY`h\Ub`') `mYUfg`fYa cj YX`Zfca `h\Y]f``Ugh GhUb`Ym`7i d`hf]i a d\ž`k YfY``YZh`[fUdd`]b[ `k]h\`X]gUddc]bha Ybh"

H\Y'GhUb`Ym'7idž'h\Y'c`XYqh'hfcd\m']b'Bcfh\'5a Yf]WUb

## GhUb`Ym7id@Y[UWm

Ghi Ufh'G\_]bbYfž']b'U'dcqh! [Ua Y']bhYfj ]Yk ž'j c]WYX'U'XYq]fY'hc `YUfb'Zfca 'DUbh\Yfg'[cU`hYbXYf'GYf[Y]'6cVfcjg\_m"'G\_]bbYf UW\_bck `YX[YX 6cVfcjg\_mg fYa Uf\_UV Y Wcbg]ghYbWm UbX a YbhU` ghYUX]bYgg`h\fci [\ci h`h\Y`gYf]Yg"`8i f]b[ `h\Y`Z]bU`gž6cVfcj g\_m a UXY Ub Ughci bX]b[ '(+'qUj Yg'ci h'cZ') \$'g\chg']b'; Ua Yg') UbX \* ž g\ck WUg]b[ `\]g`dfck Ygg`i bXYf`dfYggi fY" 8 Ygd]hY`\]g X]qUddc]bha YbhqžG\_]bbYffYa U]bgcdh]a ]qh]WUVci h`\]qZi hi fYž \cdYZ ``h\Uh`\Y`WUb`a ]ffcf`6cVfcj g\_mg`gi WWYgg"

d`UmcZZq'U[U]bgh'Zcfa ]XUV`Y'cddcbYbhg"

H\Y`DUbh\Yfg`a UbU[Ya Ybh`hYUa ž`]bWi X]b[`ck bYf`J ]bWbh`J ]c`U UbX [YbYfU``a UbU[Yf`6]```N]hcža UXY ghfUhY[]Wa cj Yg h\Uh dfcjYX`VYbYZ]W]U`ž'dUfh]W``Uf`m'k]h\`Ym'hfUXYg`Uh'h\Y`XYUX`]bY" 5Wei ]f]b[ 'XYZYbqYa Ub'GYh\ ' cbYq'UbX'Zcfk UfX'6fUX'A UfW UbX [U] Y h\Y DUbh\Yfg h\Y Z]fYdck Yf bYYXYX hc UXj UbWY h\fci [\ h\Y

H\Y`DUbh\Yfg`WcUW\ž`DUi``AUif]WYž'd`UmYX`U`d]jchU``fc`Y`]b`h\]g j]Whcfmži]ad`YaYbh]b['U`XYZYbg]jY`WcUWX]b['ghm`Y`h\Uh`ZcghYfYX`U dcg]h]jY'hYUa 'W' `hi fY"'I bXYf'\]g'[ i ]XUbWYž'h\Y'hYUa 'gUk 'b]bY d`UmYfg`gWcf]b[ '%) cf`a cfY`dc]bhg`Xi f]b[ 'h\Y`dcghgYUgcb"'GUa FY]b\Ufh`bchUV`m`g\cbY`]b`h\Y`Z]bU``[Ua Yž`bYhh]b[`Zci f`[cU`gž gWcf]b[ k Ug Wfi W]U`]b a U]bhU]b]b[ dfYggi fY cb h\Y C]`Yfg"

# $H \setminus Y F c U X h c J W h c f m$

9Xa cbhcb g`\YUX`WcUW\ž?f]g?bcV`Ui W\žYI dfYqqYX`\]q X]gWcbhYbh'cj Yf'h\Y``cggžbch]b[ 'h\Uh'\]g'hYUa 'ghfi [ [ `YX'hc a UhW\`h\Y`DUbh\Yfg`dYfZcfa UbW\`]b`h\Y`Z]bU``hk c`[Ua Yg`cZ`h\Y gYf]Yg" = b h Y k U\_Y cZh Y XYZYUhž C Yfg [ cU hYb XYf Ghi Ufh G ]bbYfUXa ]hhYX'hc'ZYY`]b[ 'Zfi ghfUhYX'k ]h\'\]g'd`Um'h\fci [ \ci h h\Y`Z|bU`q"`K \]`Y`\Y`\UX`dfYj ]ci q`m'dYfZcfa YX`k Y```U[ U]bgh'h\Y 8U``Uq`GhUfqž'h\Y`dfYqqifY`cZ'h\Y`GhUb`Ym`7id`: ]bU``dfcjYX`U X]ZZYfYbh`\_]bX`cZ`WXU``Yb[Y"

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

8 Y hU]`g	
Cfh	5a YfUbh'6Ub_'5fYbUž'Gi bf]gYž': `cf]XUž'I G5
EiY``Yb	• k k k "dfcZcchVU``bYhk cf_"Wca
	● k k k "Ygdb"Wca
	● k k k "igUhcXUm"Wca

H\Y`GhUb`Ym`7id`:]bU``h\]g`mYUf`kUg`acfY`h\Ub`^igh`U W\Uad]cbg\]d`gYf]Yg/`]h`kUg`U`hYghUaYbh`hc`fYg]`]YbWYž`hYUakcf\_ž UbX`h\Y`gd]f]h`cZ`h\Y`[UaY"`:cf`ZUbgž`d`UmYfgž`UbX`U```]bjc`jYXž h\]g`]g`U`gYUgcb`h\Uh`k]```cb[`VY`fYaYaVYfYX"

: cf'h\Y'DUbh\Yfgž'h\]g'hf]i a d\`a Uf\_g'U'\]ghcf]Wa ca Ybhž gc`]X]Zm]b[ 'h\Y]f'dcg]h]cb']b'Gci h\': `cf]XU'gdcfhg'`cfY"'H\Ym'\Uj Y bck 'VYWca Y'h\Y'%\$h\'ZfUbW\]gY']b'B<@`\]ghcfm'hc'fYdYUh'Ug W\Ua d]cbg"'5g'h\Y'YU[iY`cc\_g'U\YUXž'X]gW'gg]cbg'UfY'U`fYUXm VfYk]b[ 'fY[UfX]b[ '6cVfcj g\_mg'Zi hi fYž'YgdYW]U``m'Ug'\Y UddfcUW\Yg'\]g'Z]bU``gYUgcb'i bXYf'\]g'gYj Yb!mYUfž'` +\$'a ]``]cb WcbhfUWh"5h'', ž'ei Ygh]cbg'`cca 'UVci h'YI hYbX]b[ '\]g'WcbhfUWhž YgdYW]U``m'Wcbg]XYf]b[ '\]g'W ffYbh'Zcfa "

#### h\Y``YU[iY'hcXUm"

 $\label{eq:started_st$