

Dc`]nY]'K]Yb'n]Y\h'\UfhY'6]`Ubn.'%\$% 5bnY][Yb'VY]'J Yf_Y\fg_cbhfc``Y°

5a ', "' i b]' & \$ &) ' ZØ\ fhY ' X]Y ': U\ ffUXdc`]nY]']b ' K]Y b! @]Y g]b[Y]b Y '? c b h fc``U_h]c b ' X i f W \ ž'a]h ' % \$ % ' 5 b n Y][Y b ' k Y [Y b J Y f_Y \ fgXY`]_h Y b "



@]Yg]b[ž'² ghYffY]W '!' + K]Yb!@]Yg]b['\Uh'X]Y'Dc`]nY]'Ua
8 cbbYfghU['Y]bY'i a ZUggYbXY'GWk Yfdi b_h_cbhfc``Y
Xi fW [YZØ\fhž'X]Y'XYi h']W Y'Gdi fYb']a 'GhfU» Ybj Yf_Y\f
\]bhYf`UggYb'\Uh''8]Y': U\ffUXdc`]nY]'XYg'GhUXhdc`]nY]_ca a UbXcg
k i fXY'XUVY]'j cb'XYf'@UbXYgj Yf_Y\fgUVhY]`i b['i bX'Y]bYa
GW bY``f]W hYf'XYg'Dc`]nY]_ca a]ggUf]Uhg'i bhYfghØhnh''8 Ug
9f[YVb]g'X]YgYf'5_h]cb']gh'VYUW h`]W : +g[YgUa h'k i fXYb'%\$%
5bnY][Yb']a '6YfY]W 'XYf'J Yf_Y\fgXY`]_hY'YfghUhhYh''Ni XYa
j Yf\Ab[hYb'X]Y'6YUa hYb'-&'Cf[Uba UbXUhY'i bX'bU\a Yb'Y]b
: U\fnYi [_YbbnY]W Yb'UVž'k Ug'nY][hž'XUgg'X]Y'Dc`]nY]'b]W h
n]a dYf`]W 'j cf[Y\hž'k Ybb'Yg'i a 'X]Y'9]b\U`hi b['XYf
JYf_Y\fgfY[Y`b'[Y\h"'

 $6YfY]hg`VY]`XYf`?cbhfc``Y`kifXYb`UiW\`nkY]: \emptyset \fYfgW\Y]bY`kY[Yb:U\fYbg`ibhYf`XYa '9]bZigg`jcb`GiW\`ha]hhY``b`Y]b[Ync[Ybž`U`gcY]b`_`UfYg`NY]W\Ybž`XUgg`FUigW\`a]hhY``]a 'JYf_Y\f`b]W\`h'hc`Yf]Yfhk YfXYb"`=a 'FU\aYb`XYf`9]bg\AhnY`ZØ\fhYb`X]Y`6YUahYb`-(5`_chYghg`XifW\"'9]b`VYgcbXYfg`UiZgY\YbYffY[YbXYf':U``kUf`XYfY]bYg`9!GWcchYf!@Yb_Yfgž`XYf`a]hY]bYf`VYY]bXfiW_YbXYb;YgW\k]bX][_Y]hjcb'*\$_a\#\`UiZ[YZU``Yb]gh/]\aikifXY`X]YKY]hYfZU\fhibhYfgU[h"`Gc`\W\Y'Jcf_caab]ggY`bY\aYb'aY\fibXaY\fibXaY\finizibX`X]Y`Dc`]nY]`g]Y\h'g]W\`[Ynkib[YbžYbYf[]gW\XifW\ni[fY]ZYb"`K]Y`X]Y`<\finy`VYf]W\hYhz`g]bX`gc`\W\Y'?cbhfc``YbYbqW\Y]XYbXz`ia`X]Y`G]\W\Yf\Y]h`]a 'GhfU\YbjYf_Y\f`ni`Yf\O\Yb"$

FYWXh`]WXY'FU\a YbVYX]b[ib[Yb

8 | Y f Y W h | W Y b 6 Y gh | a i b [Y b f i b X i a X Y b ? c b g i a i j c b 8fc[Yb']a 'Ghfu» Ybj Yf_Y\f'\UVYb'g]W\']b 'YhnhYf'NY]h'j YfÀbXYfh" 8 Ug'? cbgi a WUbbUV]g[YgYhn'f? 7 Ub; Łž'XUg'Ua '\$%"\$("&\$&(']b ?fUZh`hfUhž`fY[Y`h`XYb`6Yg]hnž`?cbgia`ibX`5bVUi`jcb`7UbbUV]q ibhYfVYgh]a a hYbJcfUiggYhnib[Yb"'Hfchn'X]YgYf'@]VYfU`]hÀh'[]`h bUWX k]Y j cfž XUgg XYf?cbgi a j cb 7UbbUV]g]a GhfU» Ybj Yf_Y\f ghfyb[ghYbg'@VYfkUW\h'k]fX"'8Yf'K]f_ghcZZ'HYhfU\mXfcWUbbUV]bc` fH<7\t2XYf\XUg\nYbhfU\Y\BYfj\YbqmqhYa\VYY]bZi\qqh\t2_Ubb\X]Y $: U \ fZA \][\ \underline{Y} \]h \ Y \ f \ Y \ V \]WX \ V \ Y \]b \ hfA \ WX \ h][\ Y \ b \ " \ 6 \]g \ Y \ f \ [\ U \ Y \ g \ \underline{Y} \]b \ Y \ b$ ZYghYb'H<7!; fYbnk Yfhž'À\b`]W\'XYa '5`_c\c`!; fYbnk Yfh'j cb'\$ž) Dfca]``Yžk Ug'X]Y'BUW\kY]gdZ]W\h'ØVYfUi g'_ca d`]n]Yfh'[YghU`hYh \Uh" 9fgh'a]h'XYb 5bdUggi b[Yb]a 'GhfU» Ybj Yf_Y\fg[YgYhn fGh]; Ł i bX'XYf': U\fYf`Ui Vb]qj YfcfXbi b['fl YJ Łž'X]Y'Ua '&&"\$, "&\$&(']b ?fUZh`hfUhYbž'k i fXY`X]Yg`fYW\h`]W\`_`UfYf`XYZ]b]Yfh"`8UVY]`]gh`XYf BUW\kY\g'Y\bYg'H<7!K\Yfh\Yg'UV'\%'b\[\#a\``\]a\'6\i\h'b\i\b';\fi\bX'\Z\Øf Y]b 'C fXbi b[g[Y`X '[Ya À» 'z '&(U 'f&Ł'Gh); "

8]YgY'[YgYhn']W\Yb'5bdUggi b[Yb'k i fXYb'bchk YbX][ži a 'X]YG]W\Yf\Y]h'XYf'JYf_Y\fghY]'bY\a Yf'ni '[Yk À\f'Y]ghYb'i bX A]ggVfUi W\'ni 'j Yfa Y]XYb"'; YfUXY']b'5bVYhfUW\h'XYf VYj cfghY\YbXYb'Gca a YfgU]gcb']gh'Yg'k]W\h][ž'XUgg'X]Y 5i Z_`Àfi b['ØVYf'X]Y'; YZU\fYb'XYg': U\fYbg'i bhYf'8fc[YbY]bZi gg k Y]hYf\]b'ghUf_'[YZÒfXYfh'k]fX"'GW\`]Y»`]W\'_ObbhY'Yg'YXYa 'j cb i bg'dUgg]YfYbžXUgg'k]f']a 'JYf_Y\fY]bYb'8fc[Yb'VYY]bZi gghYb

: U\fYf'VY[Y[bYb"'9]b'V]ggW\Yb'a Y\f'FØW_g]W\hbU\a Y'i bX 5W\hgUa _Y]h'_Ubb'\]Yf'XYb'YbhgW\Y]XYbXYb'I bhYfgW\]YX Ui ga UW\Yb"

I b`Àb[gh'Yf[]b['Y]b'I fhY]`ž'XUg'X]Y': U\fj YfVchY'ZØf': U\ffÀXYf'I bX 9!GWcchYf']b': fU[Y'ghY``hY'I bX'X]Y'8]g_i gg]cb'I a 'X]Y'?cbhfc``Y j cb'8fc[Yb']a 'JYf_Y\f'bYI 'YbhZUW\hY"8Yf'Gd]Y[Y`'VYf]W\hYhY \emptyset VYf'X]Y'UI Z_ca a YbXYb'fYW\h`]W\Yb'I bg]W\Yf\Y]hYb'fi bX'I a X]YgY'H\Ya Ybž'X]Y'ZØf'5i ZfY[i b['i bhYf'XYb'JYf_Y\fghY]`bY\a Yfb gcf[Yb"'?`Uf']gh'8]Y'Dc`]nY]'I bX'X]Y'; YgYm[YVYf'a \emptyset ggYb k Y]hYf\]b'XfUbV`Y]VYbž'I a 'Y]bY'g]W\YfY' \oplus ZfUghfi _hi f'Z \emptyset f'U``Y'ni [Yk À\f`Y]ghYb"

8 Y hU]`g	
Cfh	@]Yg]b[ž ⁻² ghYffY]W\
EiY``Yb	• k k k "\ Yi hY "Uh
	• k k k "gd]Y[Y`"XY
	• []V!UW\ h!]a !j Yf_Y\f"XY

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