

: 7 '7 Uf` 'NY]gg'≯bU. BUWki Wkg`Y]ghi b[gnYbhfi a 'i bhYf'8fi W_ Xi fWk'5V[Àb[Y°

: 7 '7 Uf` 'NY]gg' > bU'j YfnY]W bYhY'HU`Ybh!5V[Àb[Y']a HfUbgZYf!Gca a Yf' & \$ &) "'GdcfhW YZ'K]XYfU'X]g_i h]Yfh ghfUhY[]gW Y'Cdh]cbYb"



 $8 \] YgY \ 5V \ [\ Ab \ [\ Y \ Vf \]b \ [\ Yb \ b \]W \ h'bi \ f'dYfg \ 0b`] W \ Y' \ J \ Yf`i \ ghY' \ Z \ gf' \ XYb \ J \ YfY \]b \ Z'gcb \ XYfb' \ Ui \ W \ Z']b \ Ubn \] Y` Y \ 5gd \ Y \ hY' \ a \]h'g] W \ "`8 \] Y' \ Hf \ Ubg \ ZYfg$

 $\label{thm:continuous} $$ \UVYb^*XYa^*: 7.7Uf^*NY]gg^* bU^5i gV]^Xi b[gYbhgWAX][i b[YbY]b[YVfUWAh^i bX^_ObbhYb^]b^*Ni _i bZh^k Y]hYfY^9]bbU\a Yb [YbYf]YfYb"^8YbbcWA^V^Y]Vh^X]Y^Gcf[Yž^k]Y^XYf^JYfY]b^a]h^Y]bYa bYi Yb^*UhhfU_h]j Yb^5b[YVch^ZØf^Y]b^k Y]hYfYg^9][Yb[Yk AWAg i a [Y\Yb^*gc^*z^*XUg^*gdcfh^]WAYb^@Y]hYf^*DUhf]W_K]XYfU^_Øfn^]WA^*Ubg @]WAh^VfUWAhY"$

$8]YBUWkiWkg!5_UXYa]Y]a:c_ig$

9]b Yb hgWX Y]XYb XYg '9 'Ya Yb h']b 'XYf 'HU 'Yb hZÒfXYfi b[']gh'X]Y 5 'hYfgYf_Yb bi b["'8]Y 'a Y]ghYb 'HU 'Yb hY 'k YfXYb 'nk]gWX Yb ', 'i bX %& '\$J\fYb 'Yb hXYW_hži bX '[YgWXi `h'Xi fWX 'HfU]bYf 'c XYf 'GWci hg" '8 Ug HU 'Yb hd fc [fUaaia ZUggh'%' '@Yj Y`g'i b X 'ØVYf'' \$\$ 'C b`]bY!GY]hYbža]h'XYa 'N]Y `ž'X]Y ']bX]j]Xi Y``Yb 'hYWX b]gWX Yb 'i bX 'hU_h]gWX Yb : À\][_Y]hYb 'gck]Y 'X]Y 'dYfgÒb`]WX Y '9bhk]W_`i b['XYf' 'I b[Yb Gd]Y `Yf'ni 'ZÒfXYfb"

9]b 'Ui Zgh]Y[gZÀ\][Yf'? UXYf'V]g'&\$&*

 $5b[Yg]Whg'X]YgYf'9bhk]W_ib[Yb'aigg'XYf': 7.7Uf':NY]gg'*bUghfUhY[]gW'XYb_Yb''8Yf'GdcfhWkYZ'Ài **YfhY'g]Wk'VYgcf[h'ØVYf'X]YUgg]WkYf\Y]h']a'Ia[Ub[ia]h'XYa'bYiYb'5b[YVchž'kÀ\fYbX[Y']WknY]h]['ZYgh[Y'Y[h'k]fXž'XUgg'V]g'nif'GU]gcb'&$&) #&* 'Y]bUiZgh]Y[gZÀ\][Yf'?UXYf'nigUaaYb[YghY'`h'kYfXYb'gc`'''9g'V`Y]VhUVnikUfhYbž'k]Y'XYf'JYfY]b'X]YgY'<YfUigZcfXYfib[iaY]ghYfbk]fXž'c\bY'X]Y'VYY]bXfiW_YbXY'5fVY]h'gY]bYf'BUWkkiWkg! 5_UXYa]Y'ni'[YZÀ\fXYb''$

 $\label{eq:cvx} $$CV^*X]Y^* \not\to bUYf^*] \land fY^*HU^*YbhY^*k^*Y]hYf^*]b^*Ub^*[fc_*Y^*7^*i^*Vg^*j^*Yf^*]YfYb^*$

k YfXYbž'cXYf'cV'g]Y']b'XYf'@U[Y'g]bXž'Y]bY'gWX`U[_fÀZh][Y A UbbgWXUZh'Ui Zni ghY``Ybž'k]fX'X]Y'NY]h'nY][Yb"'9]bYg']gh'YXcWX _`Uf. '8]Y': i » VU```UbXgWXUZh']gh'ghYhg']a 'K UbXY`ž'i bX'XYf': 7'7Uf` NY]gg'*JbU'a i gg'g]WX'XUfUi Z'Y]bghY``Ybž'ZYI]VY``ni 'V`Y]VYb"

 $: \emptyset f `k Y] h Y f Y ` \pm z C fa U h] c b Y b ` \emptyset V Y f `X] Y ` B U W k i W g U f V Y] h `X Y g `J Y f Y] b g \\ _ \mathring{O} b Y b ` \pm h Y f Y g g] Y f h Y `Y] b Y b ` 6`] W _ `U i Z `X] Y ` c Z Z] n] Y ``Y `J Y f Y] b g g Y] h Y \\ k Y f Z Y b . `Z W W U f `n Y] g g ! ~Y b U " X Y "$

8 YhU]`g	
Cfh	≯bUž®Yi hgW\`UbX
EiY``Yb	• k k k "h\i Yf]b[Yb&("XY
	k k k "ZW/WUf`nY]gg! ~YbU"XY
	hU`YbhgWcfY"XY

6Ygi WXYb G]Y i bg Ui Z b!U["bYh