

# ? Yj ]b : ci bYg. J ca 'GGJ F Yi h`]b[ Yb 'ni a G7 : fY]Vi f[ ' '9]b Ya ch]cbU`Yf 5VgW ]YX

HU`Ybh`: ci bYg`k YWXgY`h`j ca `GGJ`FYi h`]b[Yb`ni f 6i bXYg`][U!FYgYfj Y`XYg`G7`: fY]Vi f[`i bX`ghUfhYh`Xcfh`gY]bY DfcZ]\_Uff]YfY"

8 Yf', VYf[ Ub[ 'j cb'' hb[ Yb'HU`YbhYb']b'\`O\YfY'@][ Yb']gh'Y]b
nYbhfU`Yg'H\Ya U']a 'XYi hgW\Yb': i » VU``"'9]b'U\_hi Y``Yg'6Y]gd]Y``]gh
XYf'K YW\gY``j cb'?Yj ]b': ci bYgž'Y]bYa '\YfUi gfU[ YbXYb
B UW\k i W\ggd]Y`Yf'XYg'GGJ'FYi h`]b[ Ybž'ni f'FYgYfj Y'XYg'G7
: fY]Vi f[ "'8]YgYf'GW\f]hh'j YfXYi h`]W\h'b]W\h'bi f'X]Y': OfXYfi b[ 'j cb
HU`YbhYbž'gcbXYfb'Ui W\'X]Y'<YfUi gZcfXYfi b[ Ybž'X]Y'a ]h'gc`W\Yb
K YW\gY`b'j YfVi bXYb'q]bX"

## 9]b 6`]W\_ Ui Z? Yj ]bg K Y[

?Yj ]b :: ci bYg k YWkgY`hY ]a '8 YnYa VYf &\$%( ']b 'X]Y I '%% XYg 'GGJ FYi h`]b [ Yb ii bX '\ Uhrg]Wk 'gY]h\ Yf ni 'Y]bYa 'k ]Wk h][ Yb 'Gd]Y `Yf ]b XYf A UbbgWk UZh Ybhk ]W\_Y`h' 'GY]b '9b [ U[ Ya Ybh'i bX 'gY]bY : À\][ \_Y]hYb '\ UVYb ']\a 'Y]bY 'nYbhfU`Y 'F c``Y ']b 'XYf 'GhUa a Y`Z Y]b [ YVfUWk hž VYgcbXYfg ']b 'XYf 'F ØW\_fi bXY 'XYf 'GU]gcb '&\$&&#&\$&' "?Yj ]b '\ Uhrg]Wk '\Yfj cffU[ YbX 'Ybhk ]W\_Y`h'i bX 'a UWk h'bi b 'XYb bÀWk ghYb 'GWk f]hh']b 'F ]Wk hi b[ 'DfcZ]Z » VU`` ž'Ài » YfhY '7\f]gh]Ub ; f]Y » Yfž 'XYf 'HfU]bYf 'XYg 'J YfY]bg" '8 ]YgYf 'K UbXY``gd]Y[ Y`h'XYb 8 fi W\_'k ]XYfž XYa 'j ]Y`Y' 'A b[ Y`Gd]Y`Yf']b ']\fYa 'GhfYVYb 'bUWk Y]bYf 'dfcZYgg]cbY``Yb '? Uff]YfY 'Ui g[ YgYhnh'g]bX"

#### 8Yfa YbgWX`]WXY 5gdY\_h

 $8 ]Y `NY]h `VY]a `GGJ `\ Uh `a ]WX `a YbgWX `]WX `[ YdfÀ[ h ž `VYgWX fY]Vh : ci bYg `gY]bY `NY]h `VY]a `JYfY]b "`8 ]YgY `5 i ggU[ Y `nY][ hž `k ]Y `k ]WX h][$ 

X]Y'dYfgÒb`]W\Y'9bhk ]W\_`i b['ZØf'\f b[Y'5h\`YhYb']gh"'BYVYbgdcfh`]W\Yb'9fZc`[Yb'g]bX'X]Y'a YbgW\`]W\Yb'9fZU\fi b[Ybz'X]Y'g]Y]b']\fYf'\\* [YbX'gUa a Y`bz'YbhgW\Y]XYbX"'8]Y'I bhYfghØhni b[z'X]YYf'j cb'HfU]bYfbz'A]hUfVY]hYfb'i bX'XYb': Ubg'Yf\]Y`hz'k]fX'cZh ØVYfgY\Ybz']gh'\YxcW\'ZØf'XUg'K c\`VYZ]bXYb'Y]bYg'Gd]Y`Yfg i bUVX]b[VUf"

### 9]b: UWX VY[f]ZZ. 5i gV]`Xi b[gj YfY]b

# 9a ch]cbU`Y 5VgWX]YXgk cfhY

8 Yf Ya ch]cbU`Y 5 VgW ]Y X j cb : ci b Yg n Y ][ h X ]Y Y b [ Y J Y f Vi b X Y b \ Y ]h n k ]gW Y b Gd]Y `Y f i b X J Y f Y]b " = \ W `V Y X U b \_ Y a ]W [ Ubn `\ Y f n`]W `V Y ] a Y]b Y b `H f U]b Y f b ii b X `H Y U a \_ c ``Y [ Y b z `g c `X Y f n i \_ Ø b Z h][ Y `G 7 : f Y ] V i f [ `G d ]Y `Y f " `G c `W Y `8 U b \_ Y g k c f h Y j Y f X Y i h`] W Y b `X ] Y `6 Y X Y i hi b [ `j c b I b h Y f g h Ø h n i b [ `i b X `H Y U a [ Y ] g h ž X ] Y `k À \ f Y b X `X Y f [ Y g U a h Y b `9 b h k ] W `i b [ `X Y g `G d ] Y `Y f g `Y ] b Y `F c ``Y [ Y g d ] Y `h`\ U V Y b "

#### 9]b 6`]W\_ ]b X]Y Ni \_i bZh

7\f]gh]Ub; f]Y» YfrgWX`cggʻa ]h'XYbʻK cfhYb. K ]fʻg]bXʻØVYfnYi [hž XUggʻk]fʻXYbʻ5V[Ub[ʻj cbʻ?Yj]bʻa]hʻi bgYfYfʻX]YgʻÀ\f][Yb A UbbgWX UZhʻ\_ca dYbg]YfYbʻ\_ObbYb" 8]YgʻYfOZZbYhʻXYbʻ6`]W\_ʻUi Z ni \_ØbZh][YʻHU`YbhYžʻX]YʻXYbʻGGJʻFYi h`]b[Ybʻ]bʻX]Yʻ: i» ghUdZYb j cbʻ: ci bYgʻZc`[Ybʻ\_ObbhYb"ʻ9gʻV`Y]Vh'ni `\cZZYbžʻXUggʻX]YʻA Ø\`Yb XYfʻHU`YbhZOfXYfi b[ʻk Y]hYf\]bʻi bYfa ØX`]WX`UfVY]hYbʻi bXʻbcWX

 $\label{eq:continuous} j ]Y`Y`k Y]hYfY``^1 b[Y`Gd]Y`Yf`X]Y`^7 \ UbW``Yf\U`hYbž`g]W\`]b`\\O\YfYb @][Yb`ni `VYk Y]gYb"$ 

· · · B 5 ;

8 YhU]`g

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