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< c``mk ccX'gYhnh'Ui Z'BcghU`[]Y'i bX'Vf]b[h``Ub['Yfk UfhYhY
: cfhgYhni b[Yb'k]Y' Hk]ghYfg ž'; `UX]Uhcf'& i bX
6YYh`Y^1]WY'6YYh`Y^1]WY 'ni fØW'Ui Z'X]Y'@Y]bk UbX"</pre>

#### 9]b 6`]W ni fØW. 8]Y J cfVchYb XYg 9fZc`[ g

; YfUXY`]a `U\_hi Y``Yb`\$J\f`ghY``hY`g]W\`Y]b`VYa Yf\_Ybgk YfhYf
I bhYfgW\]YX`ni f`?]bc`UbXgW\UZhj cb`j cf`Y]bYa `\$J\f`\YfUi g"
8 Ua U`g`Xca ]b]YfhYb`]bbcj Uh]j Y`:]`a Y`k ]Y`X]Y`GUh]fY`~6UfV]Y"
i bX`XUg`6]cd]W~CddYb\Y]a Yf" `X]Y`?]bcg"8]YgY`:]`a Y`gcf[ hYb
a ]h`XYa `[ Ya Y]bgUa Yb`?]bcghUfh`ZØf`Y]b`ghUf\_Yg`a YX]U`Yg`9W\cž
VY\_Ubbh`U`g` 6UfVYb\Y]a Yf "`8]Y`< Ui dhY]bbU\a Ybž`X]Y`X]YgY
nk Y]`K Yf\_Y`[ YbYf]YfhYbž`nY][ Ybž`XUgg`XUg`Di V`]\_i a `VYfY]h`]ghž
gck c\``bYi Y`U`g`Ui W\`U`hY`; YgW\]W\hYb`ni `Yf`YVYb"

### 9]b 7ca YVUW\_XYf? `Ugg]\_Yf

 $8 \ Yf'U\_hi \ Y``Y': c\_i \ g'j \ cb' < c``mk \ cc X'nY][ \ h'g]WX'XYi \ h`]WX'Ub \\ \_ca \ a \ Yb XYb': ]`a \ Yb'k ]Y'~Hk ]ghYfg'' \ \check{z}'XYf'b UWX'\&, '*J\fYb']b'XYb \\ ?]bcg'Ubfc``h''8]YgYf'? UhUghfcd \ YbZ]`a '\ Uh'gY]h'gY]bYf$ 

 $\label{eq:continuous_series} J Y f O ZZY b h`] W i b [ 'g W c b 'k Y `hk Y] h' fi b X `& ( $ `A ]``] c b Y b `8 c ``Uf Y] b [ Y g d] Y `h'' < ] Y f g d] Y `Y b 'b Y i Y '5 b g A hn Y 'j c b 'HY W b c `c [ ] Y 'Y] b Y VY XY i hY b XY 'F c ``Y ž'k A \ f Y b X 'Y f' [ `Y] W n Y] h] [ 'XY b '7 \ U f a Y 'X Y g C f] [ ] b U `g `V Y k U \ f h'' `8 ] Y '\ Ø b [ Y f Y '; Y b Y f U h] c b ž' j Y f h f Y h Y b 'X i f W 'X] Y G W U i g d] Y `Y f] b '8 U ] g m' 9 X [ U f! $ b Y g ž'k ] f X '\ ] Y f 'U `g `b Y i Y ' < Y `X] b d f A g Y b h] Y f h ž' k U g 'Y] b 'g d U b b Y b X Y g '5 i Z Y] b U b X Y f h f Y Z Z Y b 'X Y f' ? Ø b g h Y f Ø V Y f'; Y b Y f U h] c b Y b '\] b k Y [ 'X U f g h Y ``h''$ 

# @Ub[ 'YfgY\bhY': cfhgYhni b[ Yb'i bX'X]Y FØW\_\_Y\f'YhUV`]YfhYf'GhUfg

8]Y'FØW\_\_Y\f'jcb'GhUfg'k]Y'FiggY``'7fckY']b'~; `UX]Uhcf'&" ž'&(
\( \forall \) \fY'bUW\ 'XYa 'YfghYb' \hY]`z']gh'Y]b'kY]hYfYf'VYa Yf\_Ybgk YfhYf
\( \hfYbX'''F]X`Ym'GWchhz'XYf'FY[]ggYifz'\Uhrg]W\ 'YbhgW\ `cggYbz'X]Y
\( \hgW\] \www.hY'a \]h'<]`ZY'a cXYfbYf' \hYW\ bc`c[]Yb'ibX']bbcj Uh]j Yf
\( 5\wh]cbgYeiYbnYb'ni 'Yfn\( \hat{\}\) \Yb'''\A \]h'Y]bYf'\A \]g\wib['U`hYf'ibX
\( \hg\) \hY''\HU`YbhYz'k]Y'DUi ``AYg\wib''ibX'8YbnY`'\K \Ug\]b['hcbz'k]fX
\( \hg\) \hY''\HY''\LYB\Y''\LYB\Y'''\LYB\Y''\LYB\Y''\LYB\Y''\LYB\Y'\LYB\Y''\LYB\Y''\LYB\Y''\LYB\Y\LYB\Y'\LYB\Y\LYB\Y'\LYB\Y'\LYB\Y\LYB\Y\LYB\Y'\LYB\Y\LY

## 9]b bcghU`[]gWXYg'; YZØ\`i bX'X]Y'Ni \_i bZh']a :]`a [YgWXÀZh

 $9g'nY][h'g]WX \check{z}'XUgg'< c``mk ccX'Y]bYb'K Y['[YZ]bXYb'\Uh\check{z}'i a 'XUg bcghU`[]gWXY' <math>\Rightarrow$  hYfYggY'Ui gni bi hnYbž'i a 'gck c\``\_ca a Yfn]Y``Yb 9fZc`['ni 'Yfn]Y`Yb'U`g'Ui WX']bhYfYggUbhY'; YgWX]WX hYb'ni 'YfnÀ\`Yb'' :]`a Y'k]Y'~6YYh`Y'I]WY''  $\check{z}'XUg'bUWX'' * '*JVfYb']b'X]Y ?]bcg'_ca a hž'VYghÀh][Yb'XYb'HfYbXž'XUgg': cfhgYhni b[Yb'Y]b g]WXYfYg'; YgWXÀZh'gY]b'_ObbYb''8]Y'FØW__Y\f'j cb'VY`]YVhYb 7\UfU_hYfYb'i bX'X]Y', VYfbU\a Y'VY_UbbhYf'<UbX`i b[gghfÀb[YgdfYWXYb'j]Y`Y'; YbYfUh]cbYb'Ub'i bX'gWXUZZYb'Y]bY'JYfV]bXi b[nk]gWXYb']\bYb''$ 

8]Y'5i g[Y`UggYb\Y]h'j cb BYi]bhYfdfYhUh]cbYb 8]Y'VYj cfghY\YbXY': cfhgYhni b['j cb'~: fYU\_m': f]XUm' ž']b'XYf @]bXgUm'@c\Ub'i bX'\*JJa ]Y'@YY'7i fh]g'k]YXYf'[Ya Y]bgUa 'gd]Y`Ybž hfÀ[h'YVYbZU``g'ni 'X]YgYf'K Y``Y'XYf'BcghU`[]Y'VY]"'8]Y 5b\_ØbX][i b['Y]bYf' j]Y``ZfYU\_]Yf ': cfhgYhni b[ž'X]Y'j YfgWX]YXYbY; YbYfUh]cbYb'ni gUa a YbZØ\fhž'j YfXYi h`]W\h'XUg'6Ya Ø\Ybž Zf]gWXY'\RYYb']b'VYk À\fhY'?cbnYdhY'ni ']bhY[f]YfYb"

### 9]b HfYbX a ]h \_cbh]bi ]Yf`]W Ya K UW ghi a

6YgcbXYfg'XYi h`]W\ k ]fX'X]YgYf'HfYbX'Ub'\_ØbZh][Yb':]`a dfcY\_hYb k ]Y'~G\fY\_') " i bX'~G]ghYf'5Wh'' " ž'X]Y'VY]XY'X]Y'K ]YXYfVY`YVi b[ \_`Ugg]gW\Yf'; YgW\]W\hYb'ni a 'N]Y``\UVYb"'8]YgY'GhfUhY[]Yb \_\ObbhYb'b]W\h'bi f'X]Y'?UggYb'XYf':]`a ghi X]cg'ZØ``Ybž'gcbXYfb Ui W\'Y]bY'[UbnY'FY]\Y'bYi Yf'a O[`]W\Yf'9fn\\`i b[Yb'YfOZZbYbž X]Y'Ui Z'XYb'HfUX]h]cbYb'XYf'JYf[Ub[Yb\Y]h'VUg]YfYb"

8]Y'ni bY\a YbXY'6Y[Y]ghYfi b['ZØf': cfhgYhni b[Yb'\_Ubb'XU\Yf'U`g Y]b'NY]WXYb'ZØf'X]Y'J YfgWX]YVi b['XYf'DfcXi \_h]cbgghfUhY[]Y']b <c``mk ccX'[YgY\Yb'k YfXYb''?]bcVYgi WXYf'g]bX'VYfY]hž']b'Y]bY bcghU`[]gWXY'FY]gY'Y]bni hUi WXYbž'k À\fYbX'X]Y'Ghi X]cg j Yfgi WXYbž'a ]h'VYk À\fhYb': cfa UhYb'XUg'U`hVYk À\fhY'Di V`]\_i a ni fØW\_ni [Yk]bbYb'i bX'[`Y]WXnY]h]['bYi Y'; YbYfUh]cbYb'ni YffY]WXYb"

<u>8</u>YhU]`q

6 Ygi WX Yb 'G]Y 'i bg 'Ui Z 'b!U[ "XY