

=bhYf_i `hi fY``Yg': Ygh']a '=? < .'; Ybi ggž HUbn'i bX'; Ya Y]bgW\UZh'Yf`YVYb°</pre>

9bhXYW_Yb'G]Y'X]Y'_i `hi fY``Y'J]Y`ZU`h']a '⇒hYf_i `hi fY``Yb < Ui g'6Yf`]b!GW\ÒbYVYf[°'; Yb]Y» Yb'G]Y']bhYfbUh]cbU`Y ? Ògh`]W_Y]hYbža]hfY]» YbXY'@]j Y!5Whg'i bX'gdUbbYbXY A]ha UW\U_h]cbYb"'9fZU\fYb'G]Yž'k]Y'G]Y'FÀi a Y'ZØf ⇒bhY[fUh]cbgdfc Y_hY'bi hnYb'_ÒbbYb"'6Ygi W\Yb'G]Y'i bg'ZØf a Y\f'⇒bZcfa Uh]cbYb°

9]b : Ygh XYf J]Y `ZU `h]a '=b hYf_i `hi fY ``Yb < Ui g j c b 'GW Òb YVYf[

 $\label{thm:continuous} $$ ``5a ``%' "`$``]`ZUbX`]a ``VYn]f_`]WXYb`$hYf_i `hi fY``Yb`<Ui g`fP<&']b $$ 6Yf`]b!GWX ObYVYf[`Y]b `VYXYi hYbXYg`9fY][b]g`ghUhh `XUg`("`: Ygh XYf`J]Y`ZU`h"`8]YgY`J YfUbghU`hi b[`VfUWXhY`A YbgWXYb`Ui g j YfgWX]YXYbYb`_i `hi fY``Yb`<]bhYf[fØbXYb`ni gUa a Yb`i bX j YfXYi h`]WXhYž'k]Y`k]WXh][`]bhYf_i `hi fY``Y`6Y[Y[bi b[Yb`ZØf`XYb gcn]U`Yb`Ni gUa a Yb\U`h`]bbYf\U`V`XYf'; Ya Y]bgWXUZh`g]bX"``$

?i`hi fY``Y`8UfV]Yhi b[Yb`i bX`_i`]bUf]gW\Y ; YbØggY

"8]Y J YfUbghU`hi b['Vch'Y]bY'D`UhhZcfa 'ZØf'nU\`fY]W\Y'; fi ddYbž X]Y']\fY'?i `hi f'i bX'HfUX]h]cbYb'Xi fW\'A i g]_ž'HUbn'i bX'_Ògh`]W\Y GdY]gYb'dfÀgYbh]YfhYb"'8]Y'; ÀghY'\UhhYb'X]Y'A Ò[`]W_Y]hž ; Yf]W\hY'Ui g'j YfgW\]YXYbYb'@ÀbXYfb'k]Y'?cfYUž'XYa 'Gi XUbž XYa '@]VUbcbž'XYf'I _fU]bY'i bX'B][Yf]U'ni '_cghYb"'@]j Y!5Whg'j cb]a ' \neq < 'U_h]j Yb'A i g]_[fi ddYb'gcf[hYb'ZØf'Y]bY'ZYgh`]W\Y 5ha cgd\ÀfYž'k À\fYbX'HUbnUi ZZØ\fi b[Yb'i bX'DYfZcfa UbWYg'XUg Di V`]_i a 'VY[Y]ghYfhYb"'

DUfh]n]dUh]cbiibXi=bhY[fUh]cb

"9]b 'nYbhfU`Yg'9`Ya Ybh'XYg': YghYg'k Uf'X]Y '♣bhYfU_h]cb'XYf
6Ygi WXYf"'6Y]'j YfgWX]YXYbYb'A]ha UWXU_h]cbYbž'cf[Ub]g]Yfh'j cb
XYf'J c`_g\cWxgWXi `Y'fU < GŁ'i bX'k Y]hYfYb'dUfhbYfž'k]Y'GhYdg'Zcf
DYUWY'i bX'a cbXc?]Xg'Y"J"ž'_cbbhYb'X]Y'; ÀghY'U_h]j 'hY]`bY\a Yb"
8]YgY'[Ya Y]bgUa Yb'5_h]j]hÀhYb'\U`ZYbž'6fØW_Yb'nk]gWXYb'XYb
j YfgWX]YXYbYb'?i `hi fYb'ni 'gWX`U[Yb'i bX'XUg
; Ya Y]bgWXUZhg[YZØ\``ni 'ghÀf_Yb"''</pre>

FÀi a `]WXY'5b[YVchY'ZØf'=bhY[fUh]cb'ZÒfXYfb

 $\label{eq:continuous_series} $$ Ug' \pm hYf_i `hi fY``Y' < Ui g'V]YhYh'b]WXh'b] MXh'bi f'Y]bY'D`UhhZcfa 'ZØf JYfUbghU`hi b[Ybž'gcbXYfb'Ui WX'Y]bY'hYa dcfÀfY'i bX'_cghYbZfY]Y Bi hni b['j cb'FÀi a Yb'ZØf'b]WXh!_ca a Yfn]Y``Y' \Din hY[fUh]cbg!'i bX A][fUh]cbgdfc Y_hY''8 Ug'6Yn]f_gUa h'HYa dY`\cZ!GWX ObYVYf['ghY``h X]YgY'5b[YVchY'ni f'JYfZØ[i b[ž'i a 'X]Y'`c_U`Y'; Ya Y]bgWXUZh'ni i bhYfghØhnYb'i bX'Y][YbY'Dfc Y_hY']b'XYb'6YfY]WXYb' \Din hY[fUh]cb i bX': `ØWXh`]b[gUfVY]h'ni 'ZÔfXYfb'' \Din hYfYgg]YfhY'g]bX'Y]b[Y`UXYbZ X]Y'VYghY\YbXYb'5b[YVchY'ni 'bi hnYb'i bX'bYi Y'\Din h]Uh]j Yb'ni gWXUZYb'''$

- : Un]h. 6YXYi hi b[XYfJ]YZUhZØfX]Y
- ; Ya Y]bgWX UZh

"8 Ug'(": Ygh'XYf'J]Y`ZU`h']a '\DhYf_i `hi fY``Yb' < Ui g'ghUbX'b]W\h'bi f ZØf'_i `hi fY``Y': Y]Yf`]W_Y]hYbž'gcbXYfb'Ui W\'ZØf'XUg'9b[U[Ya Ybhž XUg'Ni gUa a Yb`YVYb']b'Y]bYf'a i `h]_i `hi fY``Yb'; YgY``gW\UZh'ni ZÒfXYfb"'8i fW\'gc`W\Y'JYfUbghU`hi b[Yb'k]fX'XUg'6Yk i gghgY]b'ZØf X]Y'j YfgW\]YXYbYb'?i `hi fYb'[YgW\AfZh'i bX'X]Y'\DhY[fUh]cb'j cb A YbgW\Yb'a]h'A][fUh]cbg\]bhYf[fi bX'i bhYfghØhnh"'K Y]hYfY\\DZcfa Uh]cbYb'Z]bXYb'g]W\'Ui Z'XYf'K YVgY]hY'XYg'\DhYf_i `hi fY``Yb < Ui gYg']b'6Yf`]b!GW\\ObYVYf["

8 YhU]`g

6Ygi WXYb G]Y i bg Ui Z a Y]b!VYf`]b bYh