

Df]XY'A cbh\']b'6Yf`]b.'8]j Yfg]hÀh'i bX Hc`YfUbn'ZY]Yfb

6Yn]f_gVØf[Yfa Y]ghYf]b 7`UfU'<Yffa Ubb ghY``hY`]b

DfYggYa]hhY]i b[Bf"'%(+jca '' %"\$) "&\$&('X]Y [Yd`UbhYb

JYfUbghU`hi b[Yb ZØf'XYb Df]XY'A cbh\]b 6Yf`]b

: f]YXf]WXg\U]b!?fYi nVYf[j cf"8Yf'6Yn]f_'k]fX`]a '⇒ b]'j c``Yf

FY[YbVc[YbZUfVYb'`Yi W\hYb'i bX'X]Y'8]j Yfg]hÀh'ZY]Yfbž

k À\fYbX'['Y]WXnY]h]['XUg'6Yk i gghgY]b 'ZØf'X]Y'H\Ya Yb'XYf

@ 6HE -Z '7ca a i b]hm'[YgW\AfZh'k]fX"'6YgcbXYfg
\Yfj cf[Y\cVYb'k i fXY'XUg': Ygh]j U``A]I 'A ÅI]Wcž'XUg']b

Ni gUa a YbUfVY]h'a]h'XYf'6chgW\UZh'j cb'AYI]_c ghUhhZ]bXYb

k]fX"'8]Y'Jc`_g\cW\gW\i 'Y': f]YXf]W\g\U]b!?fYi nVYf[k]fX

XfY]':]'a UVYbXY'UbV]YhYbž'VY]'XYbYb':]'a Y'Ui g'AYI]_c
[YnY][h'k YfXYbž'X]Y'g]W\i a 'ei YYfY'H\Ya Yb'XfY\Yb"8Yf

YfghY':]'a 'a]h'XYa 'H]hY`'/ Ua d/, &&&/-\$'HU[Y'V]g'ni a '&"

→ 'J' Ua d/, &&\$/k]fX'Ua 'A]hhk cW\ž'XYb') "'⇒ b]ž

/ Ua d∧Y``]d/



6Yn]f_gVØf[Yfa Y]ghYf]b '7`UfU' < Yffa Ubb 'ghY``hY']b

DfYggYa]hhY]`i b['Bf"'%(+'j ca '' %"\$) "&\$&('X]Y'[Yd`UbhYb

J YfUbghU`hi b[Yb 'ZØf'XYb'Df]XY'A cbh\']b '6Yf`]b ': f]YXf]WXg\U]b!
?fYi nVYf['j cf"'8Yf'6Yn]f 'k]fX']a '\$b]'j c``Yf'FY[YbVc[YbZUfVYb

`Yi W\hYb`i bX`X]Y`8]j Yfg]hÀh`ZY]Yfbž'k À\fYbX`[`Y]W\nY]h][`XUg 6Yk i gghgY]b`ZØf`X]Y`H\Ya Yb`XYf'@, 6HE -₹ '7ca a i b]hm`[YgW\ÀfZh k]fX"`6YgcbXYfg`\Yfj cf[Y\cVYb`k i fXY`XUg`: Ygh]j U``A]l 'A Ål]Wcž XUg`]b`Ni gUa a YbUfVY]h`a]h`XYf`6chgW\UZh`j cb`AYl]_c ghUhhZ|bXYb`k]fX"`

9]b k Y]hYfYg'<][\`][\h']gh'X]Y: Ø\fi b[']a '6Yf`]bYf; fØbXYfnY]ha i gYi a 'Ua 'GUa ghU[ž'XYb'%) "' \Rightarrow b]ž'VY]'XYf'X]Y HY]`bY\a Yfł]bbYb a Y\f'ØVYf'XUg'@YVYb'XYf'VY_UbbhYb HfUbgZfUi '7\Uf`chhY'j cb'A U\`gXcfZ'YfZU\fYb"'8]YgY'k Uf'Y]bY\YfUi gfU[YbXY':][i f']b'XYf'BUW_f]Y[gnY]h'i bX'gYhnhY'g]W\'U_h]j[Y[Yb'8]g_f]a]b]Yfi b['j cb'A]bXYf\Y]hYb'Y]b"' \Rightarrow f; fØbXYfnY]ha i gYi a ']b'A U\`gXcfZ']gh'Y]b'VYXYi hYbXYf\]ghcf]gW\Yf'Cfhž'XYf'X]Y'J]Y`ZU`h'i bX'K]XYfghUbXgZÀ\][_Y]h'XYf@ 6HE \neq '7ca a i b]hm'k]XYfgd]Y[Y`h'

 $8]Y'JYfUbghU'hi b[Yb']a 'FU\a Yb'XYg'Df]XY'A cbh\']b \\ : f]YXf]WXg\U]b!?fYi nVYf['V]YhYb'Y]bY'Y]bn][Ufh][Y'; Y'Y[Yb\Y]hž \\ X]Y'J]Y`ZU`h'i bX'; YgWX]WXhY'XYf'@, 6HE <math>\neq$ '7 ca a i b]hm'ni 'ZY]Yfb i bX'ni 'k ØfX][Yb''G]Y'nY][Ybž'k]Y'k]WXh]['Yg']ghž'g]WX'[Ya Y]bgUa [Y[Yb'8]g_f]a]b]Yfi b['i bX'5i g[fYbni b['Y]bni gYhnYbž'b]WXh'bi f la '\$ b]ž'gcbXYfb'XUg'[UbnY'\$J\f'ØVYf''

±b`XYf`HUVY``Y`g]bX`X]Y`k]W\h][ghYb`±bZcfa Uh]cbYb`ni `XYb :]`a UVYbXYb`i bX`XYf`: Ø\fi b[`]a '; fØbXYfnY]ha i gYi a ni gUa a Yb[YZUggh

 $pJ\ YfUbghU`hi\ b\ [\ `p'8\ Uhi\ a\ `p'I\ \backslash fnY]h'p'C\ fh'p$

р

p^- \$ 'HU[Y 'V]g'ni a '&"' \Rightarrow ']'p'A]hhk c W\ ž') "' \Rightarrow b]'p'% !&\$ 'I \f'p'5 'hY ? UdY''Yž'6cI \U[YbYf'Ghf"'- - ž'6Yf']b'p

p:8fY]'?ifnZ]`a Y`p`A]hhk cW\ž'&*"'\\$b]`p`%, !&%'l\f`p'5`hY`?UdY``Yž6cl\U[YbYf`Ghf"'--ž'6Yf`]b`p

p: Ø\fi b[']a '; fØbXYfnY]ha i gYi a 'f@YVYb'j cb'7\Uf`chhY'j cb A U\`gXcfZŁ'p'GUa ghU[ž'%) "' \Rightarrow b]'p'%(!%+'I\f'p'; fØbXYfnY]ha i gYi a ž 6Yf`]b!A U\`gXcfZ'p

8]Y'JYfUbghU'hi b[Yb'V]YhYb'Y]bY'Y]bn][Ufh][Y'; Y'Y[Yb\Y]hž'X]Y J]Y'ZU'hi bX'; YgW\]W\hY'XYf'@ $6HE = \overline{Z}$ '7ca a i b]hm'ni 'ZY]Yfb'i bX ni 'k ØfX][Yb"'G]Y'nY][Ybž'k]Y'k]W\h]['Yg']ghž'g]W\'[Ya Y]bgUa [Y[Yb'8]g_f]a]b]Yfi b['i bX'5i g[fYbni b['Y]bni gYhnYbž'b]W\h'bi f la '\si b]ž'qcbXYfb'XUq'[UbnY'\s\\]\f'ØVYf"

ElY`Y.kkk"VYf`]b"XY

8 YhU]`a

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