

?i`hif']a 'X][]hU`Yb'K UbXY`.'5i ggWXi gg ZØf'HfUbgZcfa Uh]cb'[Y[fØbXYh°

5a '%\$"\$*"&\$&) 'VYgW\`cgg'XYf'A]b]ghYf'ZØf'?i `hi fž'Gdcfh'i bX Hci f]ga i g'X]Y'9]bf]W\hi b['Y]bYg'5i ggW\i ggYg'ZØf'X][]hU`Y HfUbgZcfa Uh]cb']a '?i `hi fVYfY]W\']b'J]YhbUa "



J]YhbUa 1.5a %\$"'≯b]'&\$&) \Uh'XYf'A]b]ghYf'ZØf'?i `hi fž'Gdcfh ibX'Hcif]qaig']b'J]YhbUa'X]Y'9]bf]WXhib['Y]bYg FYXU_h]cbgUi ggWxi ggYg'VYgWx`cggYb"'8]YgYg'; fYa]i a '\Uh'XYb 5i ZhfU[ž'XUg' Dfc Y_h'ni f'X][]hU`Yb 'HfUbqZcfa Uh]cb ']a ?i `hi fVYfY]W\ 'ni 'Ybhk]W_Y`b"'| bhYf'XYf'@Y]hi b['j cb'< Yffb'D\Ub HUa ž'XYa 'ghY``j YfhfYhYbXYb'A]b]ghYfž'k]fX'XYf'5i ggWi gg'j cb Y]bYf'J]Y`nU\`'jcb': UW\`YihYb'ibX'JYfhfYhYfb'jYfgW\]YXYbYf A $]b]ghYf]Yb'ibhYfghØhnhžia'X]Y'X][]hU`Y'Ni_ibZh'XYf$ j]YhbUa Yg]gWXYb ?i `hi f`ni [YghU`hYb" 8 Yf FYXU_h]cbgUi ggWXi gg $VYghY \ h'Ui g'\&(A]h[YXYfbžY]bgWY)Y \ Y$ $K = [ggYbgWXUZhYfbžX]Y^b + HY]YhYfhZØfX]Y^C f[Ub]gUh]cbibX$ 9bhk]W_ib[XYgDfcY_hgjYfUbhkcfhi]WXg]bXibXXYa @Y]hYfXYg $5iggWiggYggck]Y^{-} \fYf^{-}YkY^{-} \fYbhif^{-} \fY[YbØVYf^{-}6Yf]Wh$ YfghUhhYb a ØggYb "BYVYb XYf": Ø\fi b['Xi fW\ 'D\Ub 'HUa $\emptyset V Y fb | a a h : fUi B[i m Y b H] < c Ub[@Ub U g g h A b X][Y]$ ghY``j YfhfYhYbXY'JcfghUbXgjcfg]hnYbXY'Y]bY'nYbhfU`Y'Fc``Yž ibhYfghØhnhijcb < Yffb @Y < cb['D\cb['i bX : fUi 'A U] 'H\] 'H\im <icb['U`g`k Y]hYfYb ghY``j YfhfYhYbXYb JcfghUbXga]h[`]YXYfb"</pre>

8Yf'5iggW\igg'\Uh'X]Y'JYfUbhk cfhib[ž'X]Y'EiU']h\hgg]W\Yfib[

XYgʻDfc Y_hgʻni '[Yk À\f`Y]ghYbʻi bXʻfY[Y`a À»]['6Yf]WkhYʻUbʻXYb A]b]ghYfʻni '`]YZYfb"'8]YʻX][]hU`YʻHfUbgZcfa Uh]cbʻ]ghʻb]Wkhʻbi fʻY]b hYWkb]gWkYgʻJcf\UVYbžʻgcbXYfbʻYfZcfXYfhʻUi WkʻY]bY [fi bX`Y[YbXYʻBYi cf]Ybh]Yfi b[']bbYf\U`VʻXYfʻ?i `hi fVYfY]WkYžʻi ag]WkYfni ghY``YbžʻXUggʻX]YʻX][]hU`YbʻGhfUhY[]Ybʻ_`UfʻZcfa i `]Yfhʻi bX_ccfX]b]Yfhʻg]bX"

8]Y'<YfUi gZcfXYfi b[Yb'XYf'X][]hU`Yb HfUbgZcfa Uh]cb

8]YgY = b]h]Uh]j Y ghY hi]a '9]b_`Ub['a]h'XYb' Øb[ghYb
<UbX`i b[gYa dZY\`i b[Yb'XYf'?i `hi fa]b]ghYf_cbZYfYbn'ni f
X][]hU`Yb'HfUbgZcfa Uh]cb']a '?i `hi fVYfY]W\Z'X]Y 'Ua '%%"'C_hcVYf
&\$&' 'j YfUVgW\]YXYh'ki fXYb"'8]Y '9a dZY\`i b[Yb'ki fXYb'Ui g
Y]bYf'Ghi X]YZ'X]Y'j cb'XYf'?i `hi fgh]Zhi b['XYf'@AbXYf']b'5i ZhfU[
[Y[YVYb'ki fXYZ'UV[Y`Y]hYh"8Yf'J cfg]hnYbXY'XYf
?i `hi fa]b]ghYf_cbZYfYbnZ': U`_c'A c\fgz'VYhcbhZ'XUgg'X]Y'nYbhfU`Yb
< YfUi gZcfXYfi b[Yb'j cf'U``Ya ']b'XYf'GW\UZZi b['Y]bYf'_c\AfYbhYb
8][]hU`ghfUhY[]Y'i bX']bhYfbYf'?i `hi f'`]Y[Yb"

8]Y '9a dZY\`i b[Yb 'XYW_Yb 'a Y\fYfY' < UbX`i b[gZY `XYf 'UVž XUfi bhYf.

- GhfUhY[]Y'i bX'N]Y`Y
- 5i ghUi gWX i bX J YfbYhni b[
- : ÒfXYfa U» bU\a Yb
- DYfgcbU`ibX']bhYfbY'?i`hif
- 7ca a i b]hm'6i]`X]b['i bX'5i X]YbWW'8Yj Y`cda Ybh
- 8][]hU`Y' ⇒ ZfUghfi _hi fYb
- A Yggi b['i bX'9j U`i Uh]cb
- $? \emptyset bgh`]WXY` = bhY``][Ybn`f? = 1$

8]YgY'5gdY_hY'g]bX'YbhgW\Y]XYbX'ZØf'XYb'5i ZVUi 'Y]bYg
fYg]`]YbhYb'i bX'XmbUa]gW\Yb'?i `hi fgY_hcfg']b'XYf'X][]hU`Yb'ŸfU"
A c\fg'\YVh'\Yfj cfž'XUgg'XYf': c_i g'k Yb][Yf'Ui Z'hYW\b]gW\Yb
<YfUi gZcfXYfi b[Yb'`]Y[Yb'gc``hYž'gcbXYfb'j]Y`a Y\f'Ui Z'XYf
: À\][_Y]h'ni f'Cf[Ub]gUh]cb'i bX'ni f'GW\UZZi b['Y]bYg'bYi Yb
8Yb_Ybgž'XUg'ZØf'X]Y'X][]hU`Y'HfUbgZcfa Uh]cb'bchk YbX][']gh"

8 Yf'bYi 'Y]b[Yf]WXhYhY'FYXU_h]cbgUi ggWXi gg']b'J]YhbUa 'k]fXž À\b`]WX'k]Y'X]Y'< UbX`i b[gYa dZY\`i b[Yb'XYf?i `hi fa]b]ghYf_cbZYfYbnž'U`g'D`UhhZcfa 'X]YbYbž'i a 'X]Y'_i `hi fY``Yb \dangle bhYfghØhnYb'i bX'X]Y'X][]hU`Y'HfUbgZcfa Uh]cb'YfZc`[fY]WX j cfUbni hfY]VYb"'9f'k]fX'Ui WX'g]WXYfghY``Ybž'XUgg'5[Ybhi fYb'X]Y cdh]a U`Yb'6YX]b[i b[Yb'ZØf'X]Y'A]h[`]YXYf'XYg'5i ggWXi ggYg gWXUZZYb'_ObbYbž'i a 'X]Y'X][]hU`Y'HfUbgZcfa Uh]cb']a ?i `hi fVYfY]WX'j cfUbni hfY]VYbž'k À\fYbX'Yf'g]WX'bUWX'5VgWX`i gg gY]bYf'5i Z[UVYb'Ui ZÒgYb'k]fX"

8 YhU]`g	
Cfh	J]YhbUa
EiY``Yb	• k k k "j]Y hb Ua "j b
	• k k k "_a _"cf[

6Ygi WXYb G]Y i bg Ui Z Y]bY!fY]gY "XY