

9i fcdÀ]gWXY: Yi Yfk Y\f[]dZY`]b DUf]g. GWXi `hYfgWX`i gg ZØf J YfhfYhi b['VY]'9I

/ ei ch/9fZU\fYb 'G]Y 'a Y\f 'ØVYf 'XYb '\]ghcf]gW\Yb
9i fcdÀ]gW\Yb : Yi Yfk Y\f[]dZY``]b 'DUf]gž 'VY] 'XYa 'g]W\
J YfhfYhYf j cb '%, '9I !GhUUhYb 'ZØf Y]bY '[Ya Y]bgUa Y

J YfhfYhi b['XYf': Yi Yfk Y\fYb 'VY] 'XYf '9i fcdÀ]gW\Yb 'I b]cb
Ui ggdfUW\Yb " @YgYb 'G]Yž 'k]Y 'X]YgYf 'GW\i `hYfgW\`i gg 'X]Y

♣bhYfYggYb 'j cb 'ØVYf '&ž+ 'A]``]cbYb :: Yi Yfk Y\fUb[Y\Ôf][Yb
VYggYf 'ZÒfXYfb 'k]``i bX 'k Y`W\Y '6YXYi hi b['XYf
?UhUghfcd\YbgW\i hn 'i bX 'XYf'?`]a Uk UbXY``]b 'X]YgYa
?cbhYl h`\UVYb "'9fZU\fYb 'G]Y 'Ui W\ž 'k Y`W\Y 'D`\AbY 'ZØf 'X]Y
9hUV`]Yfi b['Y]bYg '6Øfcg ']b '6fØggY``VYghY\Ybž'i a 'X]Y
Yi fcdUk Y]hY 'J YfhfYhi b['XYf': Yi Yfk Y\fYb 'k Y]hYf
j cfUbni hfY]VYb"/ ei ch/

 $8 | Yg'|gh'Y|b' \setminus | ghcf|gWXYf'HU['ZØf'X]Y': YiYfkY\fjYfVAbXY']b$ 9i fcdU°B]Y'ni j cf'gY]h'; fØbXi b['XYg'K Y`hZYi Yfk Y\fj YfVUbXYg 7 H = '[UV Yg gc `W Y]bYb GW i `hYfgW `i gg nk]gW Yb XYb FYdfÀgYbhUbhYbijcbia Y\fiU`g'&ž+iA]``]cbYb $: Yi Yfk Y \setminus fUb[Y \setminus Of][Yb \check{z} Yf_`Afh?Uf`! < Y]bn`6UbgY\check{z} DfAg]XYbh XYg$ 8 Yi hgWXYb: Yi Yfk Y\fj YfVUbXYg fB: J Łž ni a '%' '9i fcdÀ]gWXYb : Yi Yfk Y\f[]dZY``]b`DUf]q"`J YfhfYhYf`XYf`: Yi Yfk Y\fj YfVÀbXY`Ui q % GhUUhYb XYf 9i fcd À]gWXYb I b]cb \ UhhYb Ub XYa HfYZZYb hY]`[Ybca a Yb"'G]Y'\UVYb'VYgW\`cggYbž'g]W\'ZØf'Y]bY'JYfhfYhi b[XYfYifcdÀ]gWXYb:YiYfkY\fYb]b6fØggY`ibhYfXYa8UWXXYg K Y`hZYi Yfk Y\fj YfVUbXYgʻ7H≑ 'Y]bni gYhnYb" ; Ya Y]bgUa 'k c``Yb k]fXcfhž]a dc`]h]gWXYbNYbhfia XYf9ifcdA]gWXYbIb]cbžY]bYb 6i bX XYf: Yi Yfk Y\fj YfVÀbXY YhUV`]YfYbži a 'i bgYfY '₺hYfYggYb ni gUa a Yb VYggYf ni j YfhfYhYb" 8]Y 9]bgUhn_fÀZhYžX]Y $: Yi Yfk Y \setminus fUb[Y \setminus Of][Yb\check{z}g]Yg]bXibgYfYcVYfghYDf]cf]hAh' '\]Yf$ qd]Y`Yb'_Y]bY'qhUUh`]W\Yb'\bhYfYqqYb'Y]bY'Fc``Y \zeron ZfYq\@a]YfhY 6UbgY VY] gY]bYf FYXY]b XYf : fUbnÒg]gWXYb

5b XYfink Y]hÀ[][Yb J YfUbghU`hi b['bU\a Yb J YfVUbXgj YfhfYhYf Ui g'6Y`[]Ybž'6i `[Uf]Ybž'8 Yi hgW\`UbXž':]bb`UbXž':fUb_fY]W\ž

\[
\div \formall \

8]Y'6fUbXVY_Aa dZi b['i bX'XYf'?UhUghfcd\YbgWi hn']b'XYf
9i fcdA]gWXYb'I b]cb'g]bX'Y]b'k YgYbh']WXYf'6YghUbXhY]'XYf
G]WXYf\Y]hgdc']h]_'XYf'9I "'6Y]']\fYa 'HfYZZYb']b'DUf]g'VY_fAZh][Yb
X]Y'fYdfAgYbhUh]j Yb'Cf[Ub]gUh]cbYb'XYf': Yi Yfk Y\fYb'XYf'9I!
A]h[']YXghUUhYb']\f'Ui » Yf[Yk O\b']WXYg'9b[U[Ya Ybh'i bX']\fY
9bhgWX`cggYb\Y]hz'XYb'?UhUghfcd\YbgWXi hn'ni 'ghAf_Yb z'\Y]» h'Yg
]b'XYa 'j cb'U''Yb'hY]'bY\a YbXYb'JYfVUbXgdfAg]XYbhYb
i bhYfgWXf]YVYbYb'5VgWX'i ggXc_i a Ybh''8: J!DfAg]XYbh'6UbgY
\UhhY']b'DUf]g'Y]bXf]b[']WX'XYb'<]bhYf[fi bX'XYi h']WX'[Ya UWXh
?']a Uk UbXY''i bX'?f]Y[Y'ghY''Yb'Y]bY'b]Y'XU[Yk YgYbY
6YXfc\i b['ZØf'X]Y'; YgY''gWXUZh'XUf"'JY[YhUh]cbgVfAbXY'i bX
, VYfgWXk Ya a i b[Yb'U'g'ZAWXYbXYW_YbXY'9]bgUhn'U[Ybz'
[Yk U'hhAh][Y'?cbZ]_hYz']b'XYbYb'9]bgUhn_fAZhY'ni 'CdZYfb'k YfXYb.
8]Y': Yi Yfk Y\fYb'a ØggYb'g]WX'X]YgYb'<YfUi gZcfXYfi b[Yb
ghY''Yb"'8]Y'9]bgAhnY'a UWXYb'b'DWXh'j cf'@UbXYg[fYbnYb'<U'h''

I a 'X]Y': Yi Yfk Y\fYb'U`g']bhY[fU`Yb'i bX'i bj Yfn]W\hVUfYb
6YghUbXhY]`XYf'G]W\Yf\Y]hgUfW\]hY_hi f']a 'bUh]cbU`Yb'i bX
Yi fcdUk Y]hYb'?cbhYl h']b'XYf'9i fcdÀ]gW\Yb'l b]cb'UXÀei Uh'ni
j YfhfYhYbž'gc``XUg'bÀW\ghY'HfYZZYb']a 'C_hcVYf']b'6fØggY`X]Y
9hUV`]Yfi b['Y]bYg'ZYgh'VYgYhnhYb'6Øfcg']a '<YfnYb'XYf'9l
_cb_fYh]g]YfYb"'8Yf'8Yi hgW\Y': Yi Yfk Y\fj YfVUbX'j YfZØ[h'gY]h
&\$\$, 'U`g'V]g`Ub['Y]bn][Yf'bUh]cbU`Yf'JYfVUbX'ØVYf'Y]bY
JYfhfYhi b['VY]'XYf'9i fcdÀ]gW\Yb'l b]cb"'8Ug
j YfUbghU`hi b[gVYnc[Yb'VYgYhnhY'6Øfc']gh']a '<Ui g'XYf
<Ygg]gW\Yb'@UbXYgj YfhfYhi b['i bhYf[YVfUW\h"

8 Yf '%" '9i fcdà]gW Y : Yi Yfk Y\f[]dZY`]b 'DUf]g'a Uf_]Yfh'Y]bYb \]ghcf]gW Yb 'A ca Ybh'ZØf'X]Y : Yi Yfk Y\fj YfVàbXY]b '9i fcdU" 'Ni a YfghYb 'A U`'gY]h'XYf'; fØbXi b['XYg'K Y`hZYi Yfk Y\fj YfVUbXYg'7 H\div \UVYb'g]W 'X]Y 'F YdfàgYbhUbhYb'j cb'ØVYf'&ž+ 'A]``]cbYb : Yi Yfk Y\fUb[Y\Of][Yb'Ui g'%, '9I !GhUUhYb ni gUa a Yb[YgWX`cggYbž'i a '[Ya Y]bgUa 'X]Y \div bhYfYggYb'XYf : Yi Yfk Y\fYb'Ui Z'Yi fcdà]gW Yf'9VYbY ni 'j YfhfYhYb'' '8]Y JYfUbghU`hi b['k i fXY']b 'Ni gUa a YbUfVY]h'nk]gW Yb'XYa 8Yi hgW Yb': Yi Yfk Y\fj YfVUbX'fB: J Ł'i bX'XYf'ZfUbnOg]gW Yb : ÅXÅfUh]cb'BUh]cbU`Y'XYg'GUdYi fg!Dca d]Yfg'XY': fUbW 'fl BGD: Ł cf[Ub]g]Yfh''

6Y] XYa 'nk Y]hÀ[][Yb'HfYZZYb'k i fXY'VYgW\`cggYbžg]W\'ZØfY]bY
J YfhfYhi b['XYf'Yi fcdÀ]gW\Yb': Yi Yfk Y\fYb']b'6fØggY`'i bhYf'XYa
8 UW\ 'XYg'7H\Rightarrow 'Y]bni gYhnYb"'8 Ug'N]Y`']gh'Ygž]a 'dc`]h]gW\Yb
NYbhfi a 'XYf'9i fcdÀ]gW\Yb'I b]cb'Y]bYb'6i bX'XYf
: Yi Yfk Y\fj YfVÀbXY'ni 'YhUV`]YfYb'i bX'X]Y'\Rightarrow hYfYggYb'XYf
: Yi Yfk Y\fUb[Y\Of][Yb'VYggYf'ni 'j YfhfYhYb"'8: J!DfÀg]XYbh'? Uf`!
< Y]bn'6UbgY'VYhcbhY']b'gY]bYf'FYXY']b'XYf': fUbnOg]gW\Yb
B Uh]cbU'j YfgUa a `i b[ž'XUgg'X]Y'9]bgUhn_fÀZhY'X]Y'cVYfghY
Df]cf]hÀh'\UVYb'i bX'_Y]bY'ghUUh`]W\Yb'\Rightarrow hYfYggYb'Y]bY'Fc``Y
gd]Y`Yb'gc``Yb"

→ FU\a Yb'XYg'HfYZZYbg'k i fXY'Y]b'5VgW\`i ggXc_i a Ybh
i bhYfnY]W\bYhz'XUg'XUg'Ui » Yf[Yk Ò\b`]W\Y'9b[U[Ya Ybh'XYf
fYdfÀgYbhUh]j Yb'Cf[Ub]gUh]cbYb'XYf': Yi Yfk Y\fYb'XYf'9I!
A]h[`]YXghUUhYb'ZØf'XYb'? UhUghfcd\YbgW\i hn'VYhcbh''6UbgY'k]Yg
XUfUi Z'\]bz'XUgg'XYf'?`]a Uk UbXY`i bX'?cbZ]_hY'Y]bY'b]Y
XU[Yk YgYbY'6YXfc\i b['XUfghY``Yb'i bX': Yi Yfk Y\fYb'g]W\'X]YgYb
<YfUi gZcfXYfi b[Yb'ghY``Yb'a ØggYbži bUV\Àb[]['j cb
@UbXYg[fYbnYb"
</p>

I a 'X]Y': Yi Yfk Y\fYb'U`g']bhY[fU`Yb'6YghUbXhY]`'XYf G]W\Yf\Y]hgUfW\]hY_hi f'Ui Z'bUh]cbU`Yf'i bX'Yi fcdÀ]gW\Yf'9VYbY Ub[Ya YggYb'ni 'j YfhfYhYbž'gc``'VY]a 'bÀW\ghYb'HfYZZYb']b'6fØggY`]a 'C_hcVYf'X]Y'9]bf]W\hi b['Y]bYg'ZYghYb'6Øfcg']a '<YfnYb'XYf'9I _cb_fYh]g]Yfh'k YfXYb"'8Yf'8: J`]gh'VYfY]hg'gY]h'&\$\$, 'XYf'Y]bn][YbUh]cbU`Y'JYfVUbX'a]h'Y]bYf'JYfhfYhi b['VY]'XYf'9i fcdÀ]gW\Yb Ib]cbž'X]Y']a '< Ui g'XYf'< Ygg]gW\Yb'@UbXYgj YfhfYhi b[ibhYf[YVfUW\h']gh"

±bg[YgUa h'nY][h'XYf'%"'9i fcdÀ]gWXY': Yi Yfk Y\f[]dZY``]b'DUf]g'X]Y k UWXgYbXY'6YXYi hi b['i bX'Ni gUa a YbUfVY]h'XYf : Yi Yfk Y\fj YfVÀbXY']b'9i fcdUž']bgVYgcbXYfY']b'6Yni ['Ui Z'X]Y < YfUi gZcfXYfi b[Yb'XYg'?`]a Uk UbXY`g'i bX'XYf [fYbnØVYfgWXfY]hYbXYb'9]bqÀhnY"

HUVY``Y. 'J YfhfYhi b['XYf'Yi fcdÀ]gW\Yb': Yi Yfk Y\fYb']b'6fØggY`i bhYf'XYa '7H≑

p@UbX`p: Yi Yfk Y\fj YfVUbX`p i.b p.6Y`[]Yb.p.6Y`[]gW\Y.6fUbXk\YYfZYXYfUh]Y.fb6: Łp p'6i `[Uf]Yb 'p'B Uh]cbU`Yf'J YfVUbX 'XYf': Yi Yfk Y\fYb 'p p'8 Yi hgWX`UbX`p'8 Yi hgWX Yf': Yi Yfk Y\fj YfVUbX`f8: J Ł'p p: |bb`UbX'p'Gi ca Yb'DY`Ughi qU`Ub'?Yq_i g`]|hhc'fGD@L'p p: fUb_fY]WX p: AXAfUh]cb BUh]cbU`Y XYq GUdYi fq!Dca d]Yfq XY : fUbW 'fl BGD: Ł'p p=hU^]Yb'p5ggcW]Un]cbY'BUn]cbU`Y'J][]`]'XY`: i cWc'fl7BJJ: Ł'p p??fcUh|Yb p'<fi Uhq_U'i Uhfc[UqbU'nU'YXb]WU'fk J NŁp p@ | Ya Vi f['p': AXAfUh]cb BUh]cbU`Y XYg 7cfdg XY GUdYi fg! Dca d | Yfg fl B 7 DŁ p pB]YXYf`UbXY`p'6fUbXk YYf`BYXYf`UbX`fbBŁ'p p² ghYffY]WX 'p² ghYffY]WX]gWXYf²6i bXYgZYi Yfk Y\fj YfVUbX²fP 6: JŁ р p'Dcfhi [U``p'@][U'Xcg'6ca VY]fcg'Dcfhi [i YgYg'f@6DŁ'p pFia Àb]Yb p5ggcWJU]U; YbYfU`B'U'±b[]bYf]`cf'X]b Fca ¾b]U pGWk YXYb pGj Ybq_U 6fUbXq_mXXqZOfYb]b[Yb fG6: Łp p'G`ck Yb]Yb'p'; Ug]`g_U'Nj YnU'G`cj Yb]'Y'fl NGŁ'p p'GdUb]Yb'p: YXYfUW|| b'9qdUl c'U'XY'A i b]W|d]cg'm'Dfci]bW|Uq fl 9A DŁ'p fYdi V`]_m'fk NG'èFŁ'p

pl b[Ufb pA U[mUf HYfØ`Yh] HUbngÅ_c_A U[]hYfUhY]bY_H nc`hï GnÒj YhgÅ[Y fA HHgNHGnŁp pNmdYfb p

EiY``Y.'8 Yi hgWX Yf': Yi Yfk Y\fj YfVUbX'Y"'J "'fB: J Ł'#chg

8 Y hU]`c

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