

;]i `]U 6YW_Yf VY[Y]ghYfh < Ubbcj Yf. @Ygi b['j c``Yf'<i a cf'i bX ¸ VYffUgWXi b[Yb°

;]i `]U'6YW_Yf'ghY``hY']\f'bYi Yg'6i W\']b'<Ubbcj Yf'j cf"' \Rightarrow fY @Ygi b['Vch'Y]bY'A]gW\i b['Ui g'`YV\UZhYb'; YgW\]W\hYb'i bX dYfq\(Ob`)\W\Yb'5bY_XchYb''



< Ubbcj Yfž'8 Yi hgWX `Ub X '! ;]i `]U 6YW_Yf'dfÀgYbh]YfhY [YghYfb
]\fink Y]hYg'6i WX K Ybb']WX 'b]WX h'I f`Ui V 'a UWX Yž'a UWX h'Yg
Ya Ub X 'Ub XYfYg ']a 'Ui gj Yf_Ui ZhYb'[fc » Yb 'GUU` 'XYg'DUj]``cbg']b
< Ubbcj Yf" '8]Y '@Ygi b['nc['nU\ `fY]WX Y : Ubg'Ubž'X]Y 'Ui Z'X]Y
Ua ØgUbhYb'i bX']fcb]gWX Yb'; YgWX]WX hYb'XYf'5i hcf]b'[YgdUbbh
k UfYb" '6YW_Yfž'Ui WX 'VY_Ubbh'U`g'dUgg]cb]YfhY 'Ghi VYb\cW_Yf]bž
`Ug']\fY'HYI hY']b'Y]bYa 'a cbchcbYb'Gh]`ž'k Ug'Y]bYb']bhYfYggUbhYb
? cbhfUgh'ni 'XYb'`YV\UZhYb'?i fn[YgWX]WX hYb'Vch"</pre>

 $9]bY`XYf'; YgWX]WXhYb``\UbXY`h'j cb`Y]bYf` <math>\Rightarrow$ W!9fnÀ\`Yf]bž`X]Y`g]WX

ØVYf'BUW\h']a 'A YX]U'A Uf_h'Y]bgdYffh' 'Y]b'g_i ff]`Yg'GnYbUf]cž XUg'XUg'Di V`]_i a 'ni a '@UW\Yb'VfUW\hY"'K À\fYbX'XYf @YgYdUi gYb'_Ua '6YW_Yf'a]h'XYa 'A cXYfUhcf'B]`n'6c_Y`VYf[']bg D`Ui XYfb'i bX'hY]`hY'dYfgÒb`]W\Y'5bY_XchYbž'Y]bgW\`]Y»`]W\'Y]bYg Ua ØgUbhYb'J cfZU``g'a]h'Y]bYf'A]_fck Y``Y"

I bhYf\U`hgUa Y`=bhYfU_h]cbii bX a i g]_U`]gW\Y'9]b`U[Yb

9]b'k Y]hYfYg'<][\`][\h'XYf'J YfUbghU`hi b['k Uf'XYf'; YgUb['XYg]fcb]gW\Yb'GW\`U[Yfgcb[g' 6Uf]ghU'ZØf'Y]bY'BUW\h ž'XYb'6YW_Yfi bX'6c_Y`VYf['ni gUa a Yb'XUfVchYb"'8]Y'Gh]a a i b[']a 'Di V`]_i a k Uf'Ui g[Y`UggYb'i bX'j cb'K YfhgW\Ahni b['ZØf'X]Y'\i a cfj c``Yb HYI hY'[YdfA] h"

6YW_Yfž'X]Y'Ui W\'U`g'5i hcf]b'ZØf'X]Y' 7Ufc`]b'?YVY_i g'G\ck VY_Ubbh']ghž'[Yb]Y» h'`Àb[gh'XYb'GhUhi g'Y]bYf'dcdi `ÀfYb'Gh]a a Y]b'XYf'XYi hgW\Yb'7ca YXm!GnYbY"'G]Y'Ài »YfhY'g]W\'gY\f'dcg]h]j ØVYf'<Ubbcj Yf'i bX'VYnY]W\bYhY'X]Y'GhUXh'U`g' 6Yf`]b']b i bbYfj][_ ž'k Ug'VY]a 'Di V`]_i a '[i h'Ub_Ua "

5_hi Y``Y`8]g_i gg]cb`i a `G_`Uj YfY]`i bX 5bh]fUgg]ga i g

K À\fYbX'6YW_Yf']b'<Ubbcj Yf'ZØf'ZfÒ\`]WXY'Gh]a a i b['gcf[hYž k]fX'dUfU``Y``XUg'k]WXh][Y'H\Ya U'XYf'G_`Uj YfY]'i bX'XYf'XUa]h j YfVi bXYbYb'F Ugg]ga i g!8YVUhhY'k]YXYf']bg'U``[Ya Y]bY 6Yk i gghgY]b'[YfØW_h"'9]b'i a ZUggYbXYg'K Yf_'ØVYf'X]Y ; YgWX]WXhY'XYf'G_`Uj YfY]ž'XUg'j cb'DUi `]b'=ga UfX'a]h'ØVYf') \$ <]ghcf]_Yfb'i bX'Gcn]c`c[Yb'Ui g'a Y\f'U`g'%) '@ÀbXYfb'YfUfVY]hYh k]fXž'VY`Yi WXhYh'X]YgY'H\Ya Uh]_'Y]b[Y\YbX"'9g'VYhfUWXhYh'X]Y 5bZÀb[Y'XYf'G_`Uj YfY]']b'XYf'J cf[YgWX]WXhY'i bX'XYfYb 9hUV`]Yfi b[']b'U`hYb'<cWX_i `hi fYb"'

8]Y'[Yk U`hj Yf_bØdZhY'5i gVYi hi b['j cb'A YbgWXYb'k]fX'XUVY]'_`Uf XYZ]b]Yfh'i bX'UbU`mg]Yfh''<]ghcf]_Yf'i bhYfgi WXYb'i bhYf'UbXYfYa XYb'Ubh]_Yb'G_`Uj Yb\UbXY`']a '?cbhYl h'j cb'; f]YWXYb`UbX'i bX Fca 'gck]Y'XYb'I a [Ub['jcb' x XYbhi a ž'7\f]ghYbhi a 'i bX' = g`Ua a]h'G_`Uj Yb\U`hi b["'8Yf', VYf[Ub['ni 'UbXYfYb': cfa Yb'XYf ?bYWX hgWX UZh']a 'Yi fcdÀ]gWXYb'A]hhY`U`hYf'i bX'X]Y'6Y`YVi b['XYg G_`Uj Yb\UbXY`g'k À\fYbX'XYf'Yi fcdÀ]gWXYb'?c`cb]U`]g]Yfi b[']b j YfgWX]YXYbYb'?cbh]bYbhYb'g]bX'k Y]hYfY'nYbhfU`Y'H\Ya Yb"

5_hi Y``Y': cfa Yb`XYf'JYfg_`Uj i b[`i bX'XUg'Ub\U`hYbXY'9fVY'XYf hfUbgUh`Ubh]gW\Yb'G_`Uj YfY]žY]bgW\`]Y» `]W\`XYf'XUa]h j YfVi bXYbYb'HfUi a UhU'i bX'GW\i `X[YZØ\`Yž'k YfXYb'YVYbZU``g VY\UbXY`h"'8]YgY'8]g_i gg]cb']gh'VYXYi hYbX'i bX'hfÀ[h'ni f U_hi Y``Yb'5i ZUfVY]hi b['XYg'H\Ya Ug'VY]ž'k cVY]'F Ugg]ga i g'U`g Y]bY': c`[Y\]ghcf]Y'XYf'G_`Uj YfY]']XYbh]Z]n]Yfh'k]fX"

Gc 'ghY\Yb 'X]Y '\i a cfj c``Yb'; YgW\]W\hYb'j cb'6YW_Yf']a '?cbhfUgh ni 'XYb'h]YZ[fØbX][Yb'i bX'hY]`k Y]gY 'VY`UghYbXYb'H\Ya Yb'XYf G_`Uj YfY]ž'X]Y'; YgY``gW\UZh'\Yi hY'VYgW\ÀZh][Yb"'8]Y ?ca V]bUh]cb'Ui g'l bhYf\U`hi b['i bX'YfbghYb'H\Ya Yb'nY][hž'k]Y j]Y`ZÀ`h]['i bX'fY`Yj Ubh'X]Y'_i `hi fY``Y'5i gY]bUbXYfgYhni b[']gh"

A Y\f'ØVYf'6YW_Yf'i bX']\fY'@Ygi b[']b'<Ubbcj Yf'YfZU\fYb'G]Y'VY]' < 5N"' \pm 0Zcfa Uh]cbYb'ni 'XYb'U_hi Y``Yb'8]g_i gg]cbYb'fi bX'i a G_`Uj YfY]'i bX'5bh]fUgg]ga i g'Z]bXYb'G]Y'Ui Z'6 \emptyset WX YfZ]bXYb"

8 Y hU]`g	
Cfh	< Ubbcj Yfž'8 Yi hgWX`UbX
EiY``Yb	• k k k "\ Un"XY
	• b!!VWXYfZ]bXYb!h\V"XY

6 Ygi WX Yb 'G]Y 'i bg 'Ui Z 'Y]bY!fY]gY "XY