

J Yfa]gghYbZU```FYVYWWU'FYi gWX. Dc`]nY]]bg]XYf'Yf\YVh'gWXk YfY'Jcfk ØfZY

BYiY'9bh\Ø``i b[Yb']a :: U```FYVYWWUFYi gW\.'6f]gUbhY'A U]`g _ÒbbhYb'JYfgÀi a b]ggY'VY]'XYb'9fa]hh`i b[Yb'Ui ZXYW_Yb" 9fa]hh`i b[Yb']b'6Yf`]b'i bhYf'XYf'@i dY"



8 Yf: U``FYVYWWUFYi gW\'Ui g'6Yf`]b'gcf[h'gY]h'ZØbZ'\J\fYb'ZØf FÀhgY`"'9]bY'Dc`]nY]ei Y``Y'\Uh'bi b'Vf]gUbhY'A U]`g'cZZYb[Y`Y[hž'X]Y a Ò[`]W\Y'JYfgÀi a b]ggY'VY]'XYb'9fa]hh`i b[Yb'Ui ZXYW_Yb _ÒbbhYb"

8 Yf'9]b Z'i gg'j cb'< Ub X mX UhY b']a ': U`` F Y V Y WWU'F Y i g WX

8]Y '9fa]hhìi b[Yb'fi bX'i a 'FYVYWWU'FYi gWX'k YfZYb': fU[Yb'Ui Z' 6YgcbXYfg']b'6Yni ['Ui Z'X]Y '5i gk Yfhi b['j cb'< UbXmXUhYb'[]Vh'Yg I b_`Uf\Y]hYb"'8]f_'6"žY]b' \oplus g]XYf'VY]'Y]bYf'UbXYfYb Dc`]nY]VY\ÒfXYž'Ài » Yfh'? f]h]_'Ub'XYf'`Ub[Yb'6YUfVY]hi b[gnY]h X]YgYf'k]WXh][Yb' \oplus Zcfa Uh]cbYb"

8]Y'6Yf']bYf'6Y\ÔfXYb'VYbÔh][hYb'*J\fYžia'X]Y'bchk YbX][Yb 8UhYb'jcb'; cc['Y'ni 'Yf\U'hYb"'GY'Vgh'[fibX'Y[YbXY *DZcfa Uh]cbYb'k]Y'XYf'GhUbXcfh'XYf'JYfa]gghYb'kifXYb'Yfgh'gdÀh XifW\'XYb'*bhYfbYhf]YgYb'VYfY]h[YghY``h"'8]YgY'JYfnÒ[Yfib['k]fZh VY]'8]f_'6"'Yf\YV`]W\Y'6YXYb_Yb'UiZibX'`Y[h'a Ò[`]W\Y 9fa]hhìib[g`ØW_Yb'bU\Y"

9]b 'A cbUh'b UWX XYa '8]f_'6"'gY]b Y'Nk Y]ZY''[YÀi » Yfh'\ UhhYž'Yf\]Y'h X]Y'² ZZYbh']W_Y]h'd'Òhn']W\'? Ybbhb]g'j cb'XYb''Ub['YfgY\bhYb 8 UhYb"'8 Yf'NY]hdi b_h'X]YgYf'J YfÒZZYbh']W\i b['[]Vh'5b'Ugg'ni f GdY_i 'Uh]cb'ØVYf'XYb'hUhgÀW\']W\Yb'8 fi \underline{W} ž'XYf'Ui Z'X]Y'6Y\ÒfXYb Ui g[YØVh'k cfXYb'gY]b'_ÒbbhY"

9f_Ybbhb]ggY'Ui g'XYb'j YfgdÀhYhYb'8UhYb

 $8]Y ``Ui g`XYb"; cc[`Y!8 UhYb"[Yk cbbYbYb"9f_Ybbhb]ggY"k]fVY`b"X]Y 9 fa]hh`i b[Yb"Ui Z"'9g'ghY``h'g]Wk"\YfUi gž'XUgg'XYf'GWk U[Yf'j cbFYVYWWU"FYi gWk"bUWk"GhfUb[i`Uh]cbgdfU_h]_Yb"]a "\ddanhYfbYh [Ygi Wkh"\UhhY""8]YgY"Vf]gUbhYb"\ddanhZcfa Uh]cbYb"_\ObbhYb"<]bk Y]gY Ui Z'gY]b'a O[`]WkYg'<UbXY`b']a ": U```XYf'j Yfa]gghYb'GWk\Ø`Yf]b [YVYb"$

5| Y`DYhYfa UbbžY]b fYbca a]YfhYf: U`UbU`mh]_YfžnY][h'g]W\
Ya dÒfh'ØVYf'X]Y `Ub[Yb NY]hfÀi a Yž'X]Y 'ZØf'X]YgY 'YbhgW\Y]XYbXYb
9f_Ybbhb]ggY 'VYbÒh][h'k i fXYb"'8]Y 'bi b'[Yk cbbYbYb

\$\delta Zcfa Uh]cbYb'\AhhYb'VYfY]hg'\d\fY'ni j cf'ZØf'Xf]b[YbX'VYbÒh][hY
8 i fW\VfØW\Y'gcf[Yb'_ObbYb"

I b [Yk \dot{O} \ b`]W\ Y`Ni $f@W_{\ }$ \ U`hi b ['XYf GhUUhgUbk U`hgW\ UZh

8]Y'GhUUhgUbk U`hgW\UZh']b'6Yf`]b'\Ø``h'g]W\']b'GW\kY][Yb VYnØ[`]W\'XYf'?f]h]_'Ub'XYb'gdÀhYb'8UhYbUi gk Yfhi b[Yb"'8Ug :Y\`Yb'j cb'_`UfYb'9f_`Àfi b[Yb'i bX'X]Y'Ui gk Y]W\YbXYb 5bhk cfhYb'[YVYb'FUi a 'ZØf'GdY_i `Uh]cbYb'ØVYf'a Ò[`]W\Y JYfgÀi a b]ggY'VY]'XYb'6Y\ÒfXYb" 8]Y'i bni fY]W\YbXY'Ni gUa a YbUfVY]h'a]h'; cc[`Y'i bX'X]Y``Ub[Yb5i gk Yfhi b[gnY]hYb'``UggYb'Nk Y]ZY``Ub'XYf'9ZZ]n]Ybn'XYf9fa]hh`i b[Yb'Ui Z_ca a Yb"'8]f_'6"'VYhcbhž'XUgg']b'XYf'\Yi h][YbNY]h'hYW\b]gW\Y'5VZfU[Yb'ni a 'GhUbXUfX'[Y\ÒfYb'gc``hYb'i bXZcfXYfh'Y]bY'AcXYfb]g]Yfi b['XYf'9fa]hh`i b[gfci h]bYb"

9]bV] W_j cb'9|dYfhYb'nia'ZØbZhYbU1

B5;

8 YhU]`a

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