

K U\`Yf[YVb]ggY`]b` : f]YXf]W\ fc XU. `9]b Gd]Y[Y`V]`X`H\Øf]b[Ybg

B UW\`XYf`H\Øf]b[Ybk U\`VYfUHyb`78I`i`bX`@]b_Y`ØVYf`Y]bY
a`Ò[`]W\Y`Ni`gUa`a`YbUfVY]h"5bU`mgY`XYf`K`U\`Yf[YVb]ggY
i`bX`k`]fhgW\UZh]W\Y`F`YU_h]cbYb"

⊕`XYb`YhnhYb`HU[Yb`k`i`fXYb`X]Y`K`U\`Yf[YVb]ggY`]b`H\Øf]b[Yb
dfÄgYbh]Yfhž`i`bX`X]Y`6Øf[Yf]bbYb`i`bX`6Øf[Yf`j`cb` : f]YXf]W\ fc XU
\UVYb`XUVY]`Y]b`VYa`Yf_Ybgk`YfhYg`6]`X`[YnY]W\ bYh"8]Y`+)" \$\$
9]bk`c\bYf`nÄ\`YbXY`?`Y]bghUXh]a`@UbX_fY]g` ; ch\U`k`Y]gh`Y]bY
VYa`Yf_Ybgk`YfhY` , VYfY]bgh]a`a`i`b[`a`]h`XYa`H\Øf]b[Yf
8`i`fW\`gW\`b]hh`Ui`Zž`k`Ug`X]Y`DUfhY]dfÄZYfYbnYb`VYhf]Zh"8]Y
K`Ä\`Yfgh]a`a`Yb`\]Yf`gd]Y[Y`b`X]Y`UbXYgk`Y]hYb`HYbXYbnYb
k`]XYfž`k`Ug`]bgVYgc`bXYfY`ZØf`ghUh]gh]gW\Y`5bU`mgYb`j`cb
6YXYi`hi`b[`]gh"

⊕` : f]YXf]W\ fc XU`Yf\]Y`h`X]Y`5Z8`a`]h`&ž*`Dfc`nYb`h`X]Y`a`Y]ghYb
Gh]a`a`Ybž[YZc`[`h]j`cb`XYf`78I`a`]h`&`ž`Dfc`nYb`h"8]Y`@]b_Y
gW\`b]hh`a`]h`%&ž`Dfc`nYb`h`UVž`k`Ä`fYb`X`X]Y`GD8`bi`f` , ž`Dfc`nYb`h
i`bX`X]Y` ; fØbYb`bi`f`&ž%Dfc`nYb`h`XYf`K`Ä\`Yf`ZØf`g]W\`[Yk`]bbYb
_cbbhY"8]YgY`NU\`Yb`nY][Yb`Y]bY`fY`Uhj` \ca`c[YbY
DUfhY]Yb`UbXgW\UZh`XU`X]Y`5V`k`Y]W\i`b[Yb`j`ca`H\Øf]b[Yf
8`i`fW\`gW\`b]hh`VY]`_Ui`a`Y]bYf`XYf`DUfhY]Yb`ghUf`_Ui`g[YdfÄ[h]g]bX"
8]Y`GD8`Yhk`U`U[`]Yf`nk`Y]`Dfc`nYb`h`di`b_hY`ØVYf`]`fYa
`UbXYgk`Y]hYb`9f[YVb]gž`k`Ä`fYb`X`X]Y` ; fØbYb`Y]bYb`Di`b_h
XUfi`bhYf`k`UfYb"

9bhhÄi`gW\`i`b[`]VY]`XYb`⊕Xi`ghf]Y!`i`bX
<`UbXY`g_Ua`a`Yfb

B UW\`XYf`K`U\`Äi`»`YfhYb`g]W\`X]Y`⊕Xi`ghf]Y!`i`bX

< UbXY`g_Ua a Yfb`]b`9fZi fhi bX`GØXh\Øf]b[Yb`YbhhAi gW`h`ØVYf`X]Y
K U\`Yf[YVb]ggYž`]bgVYgcbXYfY`]a` <]bV`]W_`Ui ZX]Y
k]fhgW`UZh`]W`Yb`DYfgdY`_hj Yb``8]YhYf`6Ui \Ui gž`XYf`DfÄg]XYbh`XYf
≈?`9fZi fhž`VYhc`bhYž`XUgg`X]Y`ZØf`X]Y`K]fhgW`UZh`b`chk YbX][Y
GhUV`]hÄhi bX`J Yf`Ägg`]W`_Y]h`Y]XYf`b]W`h`[Y[YVYb`gY]Yb``J]Y`Y
H\Øf]b[Yf`gY]Yb`i bni Zf]YXYb`a]h`XYf`5a dY`!Dc`]h_]`Ui Z
6i bXYgYVYbY`i bX`XYf`VYghY`YbXYb`A]bXYf`Y]hgY[]Yfi b[`]a
@UbX``8]Y`fUgW`Y`6]Xi b[`Y]bYf`ghUV]`Yb`@UbXYgfY[]Yfi b[`k i fXY
U`g`i bYf`Ägg`]W`_Yfj cf[Y`cVYbž`i a`XYb`6YXØfZb]ggYb`XYf
K]fhgW`UZh`[YfYW`h`ni`k`YfXYb`

8]Y`≈?`GØXh\Øf]b[Yb`Yf`_`ÄfhYž`XUgg`X]Y`5a dY`fY[]Yfi b[`]a`6i bX
Xi fW`X]Y`K U\`Yf[YVb]ggY`Y]bYb`_`UfYb`:]b[YfnY][`Yf`U`hYb
\UVY``8Yf`<Ui dh[YgW`ÄZhgzØ`fYf`F`U`ZD]YhYfk Ug`_f]h]g]YfhYž`XUgg
X]Y`Dc`]h_]`XYg`6i bXYg`k`Y]hj`cb`XYb`6YXØfZb]ggYb`XYf
6Yj`Ø`_Yfi b[`i bX`XYf`K]fhgW`UZh`Yb`hZYfb`h`gY]``5i`g`gY]bYf`G]W`h
a`ØggYb`X]Y[Yk`Ä`hYb`DUfhY]Yb`X]Y`J`YfU`b`hk`cfhi b[`ØVYfbY`a`Yb
i bX`gW`bY`gha`Ø[`]W`Y]bY`\UbX`i b[gZÄ\][Y`F`Y[]Yfi b[`]b
H\Øf]b[Yb`V]`XYbž`i a`XYb`GhUhi`g`XYg`@UbXYg`U`g`UhfU`_h] Yb
K]fhgW`UZh`gghUbXcfh`ni`g]W`Yfb`

8 UhYbUbU`mgY`ni`f`K`U\`

9]b`[YbUi YfYf`6`]W_`Ui ZX]Y`K U\`XUhYb`nY][hž`XUgg`X]Y`5Z8`nk`Uf
]bg[YgUa`h`X]Y`ghÄf`ghY`?`fUZh]b`H\Øf]b[Yb`[Yk`cfXYb`]ghž`YXcW`
b]W`h]b`U`Yb`F`Y[]cbYb``8]Y`K U\`UbU`mgYb`\Y`ZYb`XUVY`]ni
j`YfghY`Ybž`k`c`g]W`X]Y`K Ä`Yf[fi`ddYb`XYf`j`YfgW`]YXYbYb
DUfhY]Yb`_`cbnYbhf]YfYb`i bX`k`c`i`bYfk`UfhYhYg`dUgg]Yfh]ghž`k`]Y`X]Y
XYi`h]W`Y`B]YXYf`U[Y`XYf`@]b`_Yb``8]YgYg`K]ggYb`]gh
Yb`hgW`Y]XYbXž`i a`X]Y`dc`]h]gW`Yb`Ghf`Öa`i b[Yb`]b`H\Øf]b[Yb
VYggYf`ni`YfZUggYb`

≠g[YgUa`h`\]bhYf`UggYb`X]Y`K U\`i bX`X]Y`XUfUi`Z`Zc`[YbXYb
F`YU`_h]cbYb`Y]b`6]X`j`cb`Y]bYf`gW`cW_]YfhYbž`UVYf`Ui`W`
Ui`Za`Yf`_gUa`Yb`dc`]h]gW`Yb`@UbXgW`UZhž`X]Y`bi`b`Ui`ZX]Y
YfZcfXYf`]W`Yb`A`U»`bU`a`Yb`ni`f`GhUV`]g]Yfi b[`i bX`6Yfi`\][i b[
]\fYf`6Øf[Yf]bbYb`i bX`6Øf[Yf`k`UfhYh`

8YhU]g

6Ygi W\Yb`G]Y`i bg`Ui Z.`b!U["XY