

<u_Yb_fYi nY`]b`8fYgXYb.: ØbZ i [YbX`]WXY`ZYgh[Ybca a Yb°

5a '- "'\$`]'&\$&) 'k i fXYb']b'8 fYgXYb!K Y]»]['< U_Yb_fYi nY'Ub 6Ui ghY``Yb'[YgdfØ\h"': ØbZ'J YfXÀW\h][Y'Yfa]hhY`h"



8fYgXYb!K Y]»][ž8Yi hgWX`UbX`!`5a `-"`\$`]`&\$&) `gcf[hY`Y]b
J cfZU```]b`8fYgXYb!K Y]»][`ZØf`5i ZfY[i b[. : ØbZ'\$ [YbX`]WXY`]a
5`hYf`nk]gWXYb'%* `i bX`%- `\$J\fYb`k i fXYb'j YfXÀWX h][hž
< U_Yb_fYi nY`i bX`UbXYfY'j YfVchYbY`Gma Vc`Y`Ub
6Ui ghY``YbUVgdYffi b[Yb`[YgdfØ\h'ni `\UVYb"`8]YgYf`J cfZU````Àggh
h]YZ`]b`Y]bY`[YgY``gWXUZh`]WXY`DfcV`Ya Uh]_`V`]W_Ybž'X]Y`Xi fWX`X]Y
ghY][YbXY'\$ [YbX_f]a]bU`]hAh`]b`8Yi hgWX`UbX`bcWX`j YfghAf_h`k]fX"
K]Y`GAWX g]gWXY"XY`VYf]WX hYhž'_cbbhYb`X]Y`HUhj YfXAWX h][Yb
XUb_`Ui Za Yf_gUa Yf`DUggUbhYb`gWX bY```[YghY``h`k YfXYb"'; Y[Yb
g]Y`k]fX`bi b`k Y[Yb`XYg`J Yfk YbXYbg`j cb`?YbbnY]WXYb
j YfZUggi b[gk]Xf][Yf`Cf[Ub]gUh]cbYb`Yfa]hhY`h"

 $8]YgYf'JcfZU```k]fZh': fU[Yb'ØVYf'X]Y'9bhk]W_`ib['jcb$

; fØbXY'ZØf'X]Y'DfcV`Ya Uh]_

Gcn]U`Y`i bX`dgmW\]gW\Y`6Y`Ughi b[Yb`Xi fW\: U_hcfYb`k]Y`X]Y
7cfcbU!DUbXYa]Y`g]bX`a Ò[`]W\Y'; fØbXY`ZØf`XYb`5bgh]Y[`XYf
\$\frac{1}{2}\bU`]h\hz`k]Y`XUg`6i bXYg_f]a]bU`Ua h`fb?5b`ZYghghY``h"
\$\psyVgcbXYfY`^\hz[Y`GW\i hngi W\YbXY`g]bX`cZh`j cb
\$\text{Yk U`hYfZU\fi b[Yb`VYhfcZZYb\z`k Ug`ni `Y]bYa `HYi ZY`g_fY]g`ZØ\fYb
_Ubb"\8]Y\8]g_i gg]cb`\@VYf`X]Y`5bk YbXi b[`XYg`GhfUZfYW\hg`VY]
\$\frac{1}{2}\bY\X`]W\Yb`k]fX`Ub[Yghc\timesYb\z`k Ybb`a Ub`VYXYb_hz`XUgg`]b
8Yi hgW\`UbX`?]bXYf`i bhYf`\((`\frac{1}{2}\bYb`b)]W\h`ghfUZfYW\h`]W\`VY`Ub[h\kYfYb`_ObbYb\z\gY`Vgh`VY]`gW\kYfYb`GhfUZhUhYb"

8]Y '9fa]hhì b[Yb']b'XYa 'U_hi Y``Yb': U```]b'8fYgXYb'VYk Y[Yb'g]W\
]b'Y]bYa '[YgY``gW\UZh`]W\Yb'?cbhYl hž'k c'X]Y': fU[Y'bUW\XYf
9ZZY_h]j]hÀh'j cb'\ÀfhYfYb'GUb_h]cbYb']a '\$! [YbXghfUZfYW\h']a a Yf
`Ui hYf'k]fX"'9]bY']bhYbg]j YfY'DfÀj Ybh]cbž']bgVYgcbXYfY'Xi fW\
?]bXYf!'i bX'\$! [YbX\]`ZYž_ObbhY'\Y`ZYbž'XYfUfh][Yb'XY`]bei YbhYb
J Yf\U`hYb'j cfni VYi [Yb"

$JYf_Y\fi$ bZA``Y'i bX']\fY': c`[Yb

5VgY]hg'XYf'¾ [YbX_f]a]bU`]hÀh'[UV'Yg'UiW\']b'UbXYfYb'6YfY]W\YbAY`Xib[Yb'Uig'XYf'FY[]cb"'Gc'_Ua'Yg'Ua'%' "'GYdhYaVYf'&\$&'nk]gW\Yb'Y]bYa'BchUfnhY]bgUhnZU\fnYi['ibX'Y]bYa'CdY`'7cfgUni'Y]bYa'JYf_Y\fgibZU``'Ua'D]fbU]gW\Yb'D`Uhn"'; `ØW_`]W\YfkY]gYV`]YVYb'X]Y'♣bgUggYb'ibjYf`Yhnh'ibX'kifXYb'bif'Yach]cbU`'jcbXYa'9]bgUhn'VYhfcZZYbž'k]Y'DfYggYdcfhU`'VYf]W\hYh"

9]bY'kY]hYfY'JYf_Y\fgi bZU``a Y`Xi b['VYhf]ZZh'Y]bYb'JK'; c`Z'i bX

Y]bYb'A UnXUž'VY]'XYa 'XYf': U\fYf'XYg'; c`Z'j Yf`Yhnh'k i fXY"'8Yf I bZU```gcf[hY'ZØf'Yf\YV`]W\Y'6Y\]bXYfi b[Yb']a 'J Yf_Y\fž Y]bgW\`]Y»`]W\'5i gk]f_i b[Yb'Ui Z'XYb'ÒZZYbh`]W\Yb'BU\j Yf_Y\fž k Ug'X]Y'Dc`]nY]'XUni 'j YfUb`UgghYž'X]Y'9fa]hh`i b[Yb'ni a I bZU``\Yf[Ub['Y]bni `Y]hYb"

8]YgY'j YfgW\]YXYbYb'JcfZ\A``Y']b'i bX'i a '8fYgXYb'g]bX'Y]b
VY]gd]Y`\UZhYg'5VV]`X'XYf'<YfUi gZcfXYfi b[Ybž'a]h'XYbYb'i bgYfY
; YgY``gW\UZh'_cbZfcbh]Yfh']gh'''Jcb'\[i [YbX_f]a]bU`]h\Ah'V]g'ni
JYf_Y\fgg]W\Yf\Y]h'V`Y]Vh'Yg'Y]bY'[YgUah[YgY``gW\UZh`]W\Y
5i Z[UVYž'df\AjYbh]j'ni '\UbXY`b'i bX'X]Y'6YX]b[i b[Yb'Z\Øf'Y]bY
dcg]h]j Y'9bhk]W_`i b['j cb'\[i [YbX`]W\Yb'ni 'gW\UZZYb''

8 YhU]`g	
Cfh	8fYgXYb!K Y]»][ž'8YihgWX`UbX
EiY``Yb	 k k k "gUYWX g]gWXY"XY
	kkk"dfYggYdcfhU`"XY
	XY"ghUh]ghU"Wca

6Ygi WXYb G]Y i bg Ui Z b!U["bYh