

## 8f"?Uh\f]b < Yffa Ubb. BYi Yf H]YfgWXi hn! GhUbXcfh ZØf 6Yf`]b°



 $6Yf`]b\check{z}8Yi hgWX`UbX`!`5a`\%)" \dot{z} (\$\&)` \ Uh'X]Y \\ GYbUhgj Yfk U`hi b[`ZØf'$\delta gh]n'i bX`J YfVfUi WXYfgWXi hn']b'6Yf`]b'Y]bY Y]bj YfbY\a`]WXY`FY[Y`i b[`]a`UfVY]hgfYWXh`]WXYb ; ØhYf]WXhYfj YfZU\fYb'a]h'XYf'@UbXYgh]YfgWXi hnVYUi ZhfU[hYb'8f''?Uh\f]b'</br>
<math display="block"> (\%hYf)WXhYfj YfZU\fYb'a]h'XYf'@UbXYgh]YfgWXi hnVYUi ZhfU[hYb'8f''?Uh\f]b'</br>
<math display="block"> (\%hYf)WXhYfj YfZU\fYb'a]h'XYf'@UbXYgh]YfgWXi hnVYUi ZhfU[hYb'8f'']b' \ (\%hYf)WXYfi]b' \ (\%hYf)WXYf'' \ (\%hYf)WYf'' \ (\%hYf)WYf'' \ (\%hYf)WYf'' \ (\%hYf)WYf'' \ (\%hYf)WXYf'' \ (\%hYf)WYf'' \ (\%hYf)WXf'' \ (\%hYf)WYf'' \ (\%hYf)WXf'' \ (\%hYf)WYf'' \ (\%hYf)WYf'$ 

8f" < Yffa Ubb ]ghgY]hBcj Ya VYf & \$ & \$ @UbXYgh]YfgWki hnVYUi ZhfU[hY j cb 6Yf`]b" `G]Y ]ghrb]Wk hrbi f Yi fcd À]gWk Y : UWk h]Yf Àfnh]b `ZØf `H]YfgWki hnž `H]YfYhk ]\_ `i bX H]YfgWki hnfYWk hž gcb XYfb `\ UhrUi Wk `]a `6YfY]Wk `XYf V]ca YX]n]b]gWk Yb `K ]ggYbgWk UZhYb `dfca cj ]Yfh" `6Yj cf `g]Y `X]YgY Dcg]h]cb `Y]bb U\a ž `k Uf `g]Y `ZUgh `Y]b `\$J\fnY\bh `U`g k ]ggYbgWk UZh`]Wk Y `A ]hUfVY]hYf]b `Ua `@UbXYgUa h`ZØf ; Ygi bX\Y]h i bX `Gcn]U`Yg `hÀh][ "`Ni `]\fYb `5i Z[ UVYb `Xcfh [ Y\OfhY `X]Y h]YfgWki hnfYWk h`]Wk Y `i bX `k ]ggYbgWk UZh`]Wk Y `DfØZ b[ 'j cb H]Yfj Yfgi Wk gUbhfÀ[ Yb `gck ]Y `X]Y `, VYfk UWki b[ 'j cb J Yfgi Wk qh]Yf\U`hi b[ Yb"

## : $cfgWXib[gdfc^Y_hY^ibX^i]bhYfbUh]cbU^Y$ 9IdYfh]gY

8f"'<Yffa Ubb'k]fX'Ub': cfgWki b[gdfc'Y\_hYb']b'XYb'l G5'i bX
5i ghfU']Yb'hY]'bY\a Ybži a ']\fY']bhYfbUh]cbU'Y'9l dYfh]gY']a
6YfY]Wk'H]YfgWki hn'ni 'Yfk Y]hYfb"'6YfY]hg'gY]h'&\$%+'UfVY]hYh'g]Y
Ua '7YbhYf'Zcf'5`hYfbUh]j Yg'hc'5b]a U`'HYgh]b['ff755HŁ'XYf'&\bg
<cd\_]bg'l b]j Yfg]hm']b'XYb'l G5'i bX''Y\fh'ni XYa 'k Y]hYf\]b'cb`]bY
Ub'XYfgY`VYb'=bgh]hi h]cb"'Ni XYa ']b]h]]YfhY'g]Y'&\$%- 'Y]bYb
GUa a Y`VUbXž'XYf'\_cghYb`cg'\Yfi bhYf[Y`UXYb'k YfXYb'\_Ubbž'a]h
XYa 'H]hY`' 5b]a U`'9l dYf]a YbhUh]cb.'K cf\_]b['Hck UfXg'U
DUfUX][a '7\Ub[Y "

Ni ']\fYb'k Y]hYfYb'5fVY]hgZc\_]'nÀ\`Yb'X]Y'`UbXk ]fhgW\UZh`]W\Y
H]YfdfcXi \_h]cb'i bX'XYfYb'9]bZi gg'Ui Z'XUg'?`]a U'gck ]Y'X]Y
I a k Y`hj YfgW\a i hni b['i bX'NccbcgYb"'8]YgY'H\Ya Yb'g]bX'j cb
[fc»Yf'FY`Yj Ubnž']bgVYgcbXYfY']b'Y]bYa ']bhYfbUh]cbU`Yb'?cbhYI hž
k c'XYf'[YgY``gW\UZh`]W\Y'GhY``Ybk Yfh'XYg'H]YfgW\i hnYg'ghUf\_
j Uf]]Yfh'i bX'cZh'b]W\h'U``Y'; fi bXVYXØfZb]ggY'XYf'H]YfY
Ui gfY]W\YbX'UV[YXYW\_h'k YfXYb"'K ]ggYbgW\UZh`]W\Y'9f\_Ybbhb]ggY
Ui g'X]YgYb'6YfY]W\Yb'k YfXYb'ZØf'X]Y'ni \_ØbZh][Y'H]YfgW\i hndc`]h]\_
]b'6Yf`]b'j cb'YggYbn]Y``Yf'6YXYi hi b['gY]b"

## H]YfgWXi hn fYWX h`]WX j YfUb\_Yfh

8 Yf H]YfgWki hn \ Uhrk Y hk Y]hi bhYfgWk]YX`]Wk Y fYWk h`]Wk Y; fi bX`U[Ybž'UVYf']b XYb a Y]ghYb GhUUhYb YI ]gh]YfYb 6 Ygh]a a i b[Yb ni a 'GWki hn XYf'H]YfY"K À\fYbX @ÀbXYf'k ]Y X]Y GWk Y]n Y]b fY`Uh]j 'ghfYb[Yg'H]YfgWki hn[YgYhn \ UVYbž']gh X]Y fYWk h`]Wk Y G]hi Uh]cb ']b '8 Yi hgWk `UbX'ghfYb[Yfž']bgVYgcbXYfY k Ug X]Y 'HÒhi b['j cb 'H]YfYb 'c\bY'j YfbØbZh][Yb'; fi bX 'VYhf]ZZh" \ \DXYf GWk Y]n 'Yhk U']gh X]Yg 'ghfUZcgž'k Ug']a '; Y[YbgUhn ni f'XYi hgWkYb FYWk hg`U[Y'ghY\h"

8]Y 'Zcfh`Ui ZYbXY '5fVY]h'j cb '8f"' < Yffa Ubb'j Yfgdf]W\ hž'bYi Y
DYfgdY\_h]j Yb']b'X]Y '6Yf`]bYf'H]YfgW\ i hndc`]h]\_'Y]bni Vf]b[ Yb'i bX
X]Y']bhYfbUh]cbU`Y'Ni gUa a YbUfVY]h']a 'H]YfgW\ i hn'ni 'Z\OfXYfb"'\left\forall f
9b[ U[ Ya Ybh'k ]fX'b]W\ h'bi f'Ui Z'`c\_U`Yfž'gcbXYfb'Ui W\ 'Ui Z
[ `cVU`Yf'9VYbY'Y]bYb'bUW\\U`h][ Yb'9]bZi gg'\UVYb"

K Y]hYfY' ⇒ Zcfa Uh]cbYb'ni f'H\Ya Uh]\_'V]YhYb'X]Y'K YVgY]hYb'XYf' GYbUhgj Yfk U`hi b['ZØf'⅓ gh]n'i bX'J YfVfUi WX YfgWXi hnž'XYf' @UbXYgh]YfgWXi hnVYUi ZhfU[hYb'gck]Y'j cb'H]Yf']a 'FYWXh''

8 Y hU]`g	
Cfh	6Yf`]bž'8Yi hgWX`UbX
EiY``Yb	• k k k "VYf`]b"XY
	• `UbXYgh]YfgWXi hn"Wca
	• k k k "h]Yf]a fYWX h"cf[

## 6 Ygi WX Yb 'G]Y 'i bg 'Ui Z. 'a Y]b!VYf`]b "bYh