

6fUbXgYf]Y]b K Yfa Y`g_]fWXYb. Dc`]nY] gi WXh NYi [Yb i bX HÀhYf°

 $BUWX Y]bYf'6fUbXgYf]Y']b'K Yfa Y`g_]fWXYb'gi WXh'X]Y'Dc`]nY]\\ <]bKY]gY'ni 'a i ha U<math>\rangle$ `]WXYf'6fUbXgh]Zhi b["'(\$'6Yk c\bYfVhfcZZYb"



K Yfa Y`g_]fWX Ybž8Yi hgWX`UbX`!`\D`K Yfa Y`g_]fWXYb`_Ua `Yg
Ua ``GUa ghU[a cf[Yb`ni `Y]bYf`XfUa Uh]gWXYb`6fUbXgYf]Y`]b`XfY]
A Y\fZUa]`]Yb\Ai gYfb"`8]Y`Dc`]nY]'j YfghAf_h`XUfUi Z\]b`]\fY
DfAgYbn']b`XYf`GhUXhži a `a O[`]WXY`HAhYf`ni `Z]bXYb"`I bhYf`XYb
9]bgUhn_fAZhYb`VYZ]bXYb`g]WX`X]Y`Dc`]nY]`?O`b`gck]Y`X]Y`Dc`]nY]`XYg
F\Y]b]gWX!6Yf[]gWXYb`?fY]gYgžX]Y`[Yn]Y`hY`DYfgcbYb_cbhfc``Yb
Xi fWXZØ\fYb"`8]Y`6fAbXY`VfUWXYb`]b`nk Y]`?Y``Yfb`i bX`Y]bYa
8 UWX[YgWXcgg`Ui gž'k cVY]`XUg`8 UWX[YgWXcgg'j c``ghAbX][
Ui gVfUbbhY`i bX`Y]bYg`XYf`VYhfcZZYbYb'; YVAi XY'j cfUi gg]WXh`]WX
UV[Yf]ggYb`k YfXYb`a i gg"`8]Y`Dc`]nY]'j Yfa i hYh`6fUbXgh]Zhi b[`i bX
ZØ\fh`]bhYbg]j Y`9fa]hh`i b[Yb`Xi fWXžV]g\Yf`YXcWX`c\bY`<]bk Y]gY
Ui Z`_cb_fYhY`HUhj YfXAWXh][Y"`\DgVYgcbXYfY`k i fXYb`nk Y]`A AbbYfž
X]Y`a]hY]bYa `9!GWcchYf`]b`J YfV]bXi b[`a]h`XYa `Xf]hhYb`6fUbX

 $[YgY\Yb'k i fXYbž']XYbh]Z]n]Yfh"`8YbbcW.`V`Y]Vh'X]Y` \Rightarrow XYbh]hÀh`XYf a Õ[`]WXYb'HÀhYf'i b_`Ufž'i bX'X]Y'9fa]hh`i b[Yb'f]WXhYb'g]WX']b'U``YF]WXhi b[Yb"$

6Y] XYb 6fàbXYb k UfYb]bg[YgUa h (\$ 6Yk c\bYf VYhfc ZZYbž XUfi bhYf nY\b DYfgcbYbž X]Y J Yf Yhni b[Yb Yf]hhYbž YXcWX VYfY]hg Ua K cWXYbYbXY Ui g XYb ?fUb_Yb\ài gYfb Ybh`UggYb k YfXYb _cbbhYb" 8]Y : Yi Yfk Y\f k Uf [Ynk i b[Ybž 6Yk c\bYf ØVYf 8fY\ `Y]hYfb ni fYhhYbž XU XYf ghUf_Y F Ui W XYb : `i W hk Y[ØVYf XUg HfYddYb\Ui g j YfgdYffhY" 8]Y VYhfc ZZYbYb ; YVài XY `]Y[Yb Yhk U Y]bYb ?]`ca YhYf j cbY]bUbXYf YbhZYfbh'i bX VY\YfVYf[Yb j]Y `Y 6Yk c\bYf a]h`A][fUh]cbg\]bhYf[fi bX" 6Øf[Yfa Y]ghYf]b A Uf]cb < c`h\Ui g 'Ài » YfhY g]WX gWX c W_]Yfh'ØVYf X]Y J cfZÀ ``Y i bX XYfYb k Y]hfY]WX YbXY: c`[Yb ZØf X]Y ; Ya Y]bgWX UZh"

8 fUa Uh]gWX Y F Yhhi b [gU_h]cbYb

8]Y XfUa Uh]gWXYb FYhhi b[ggnYbYb k i fXYb VYgcbXYfg Xi fW X]Y 9j U_i]Yfi b[Y]bYg J UhYfg i bX gY]bYg ? Y]b_]bXYg Z X]Y j ca 8UWX [YfYhhYh k i fXYb Z Y]bXfi W_gj c `` "8]Y Dc `]nY] \ Uh VYfY]hg X]Y A cfX_ca a]gg]cb Y]b[YgWX U `hYhz XU XYf J YfXUWX h Ui Z j Yfgi WX hYb A cfX VYghY\h" Hfchn i a ZUggYbXYf 9fa]hhì b[Yb gck]Y XYf 6YZfU[i b[j cb NYi [Yb i bX 5bk c\bYfb V`]YVYb X]Y 6Yk Y]gY V]g`Ub[YfZc`[`cg" 8]Y K c\bi b[Yb XYf VYhfc ZZYbYb 6Yk c\bYf k i fXYb Ui Z[fi bX j cb <]bk Y]gYb Xi fWX gi WX hz YXcWX [UV Yg XUVY] _Y]bY bYbbYbgk YfhYb 9f[YVb]ggY"

8]Y'6fUbXgh]Zhi b[Yb'\UVYb'Ui W\Y]bY'Yf\YV']W\Y'K]f_i b['Ui Z'X]Y `c_U`Y'; Ya Y]bgW\UZh"'8]Y'GhUXh'\Uh'VYfY]hg'%* 'XYf'VYhfcZZYbYb 6Yk c\bYf']b'Bchi bhYf_ØbZhYb'i bX'<chY`g'i bhYf[YVfUW\hž k À\fYbX'UbXYfY'j cfØVYf[Y\YbX'VY]': fYi bXYb'i bX'J Yfk UbXhYb i bhYf[Y_ca a Yb'g]bX"'8Yf'GhUUhggW\i hn'XYf'? O`bYf'Dc`]nY]']gh YVYbZU``g'Ub'XYb'9fa]hh`i b[Yb'VYhY]`][hž'i a 'XYfYb'a O[`]W\Y A ch]j Y'ni 'Yf[fØbXYb"'8Yf'U_hi Y``Y': U``k]fZh'X]Y': fU[Y'Ui Zž'cV'X]Y 6fUbXgh]Zhi b[Yb'HY]``Y]bYf'VYgcf[b]gYffY[YbXYb'9bhk]W_`i b[']b K Yfa Y`g_]fW\Yb'g]bXž']bgVYgcbXYfY'Ub[Yg]W\hg'XYf ni bY\a YbXYb': U``nU\`Yb'j cb'6fUbXgh]Zhi b[Yb']b'8Yi hgW\`UbX'' @Ui hY]bYf'GhUh]gh]_'XYg'6i bXYg_f]a]bU`Ua hgž'X]Y'dc`]nY]`]W\

YfZUgghY': À``Y'j cb'6fUbXgh]Zhi b['gY]h'%--) 'Xc_i a Ybh]Yfhž']gh'X]Y DfcV`Ya Uh]_'b]W\h'bYi ž'YfZcfXYfh'YXcW\'Xf]b[YbX 5i Za Yf_gUa _Y]h"

 $8]Y `9fa]hh`i b[Yb `XYf `Dc`]nY] `gYhnYb `XUfUi Zz` <]bk Y]gY `Ui g`XYf 6Yj Ò`_Yfi b[`ni `Yf\U`hYbz`i a `@]W\h`]b `X]Y `Xi b_`Y `5b[Y`Y[Yb\Y]h ni `Vf]b[Yb" `8]Y `G]hi Uh]cb `]b `K Yfa Y`g_]fW\Yb `V`Y]Vh`Ub[YgdUbbhz k À\fYbX`X]Y `6Y\ÒfXYb `k Y]hYf\]b `bUW\ `5bhk cfhYb `gi W\Yb `i bX`X]Y G]W\Yf\Y]h`XYf`6Yk c\bYf`[Yk À\f`Y]ghYb `gc``Yb"$

8 Y hU]`g	
J c f ZU``	6fUbXgh]Zhi b[
Cfh	K Yfa Y`g_]fW\Ybž'8Yi hgW\`UbX
J Y f`Y hn hY	%\$
EiY``Yb	k k k "_ghU"XY
	• k k k %"k Xf"XY
	XY"ghUh]ghU"Wca

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