5f_UbgUg'GWcfYg'6][.'8Um`Yb'; fYYb 7\ccgYg'FUncfVUW_g'CjYf': GI °

8 Um`Yb'; fYYbž'U'ghUbXci h'Zfca'; UXgXYb'7ci bhmž'Wca a]hg hc'5f_UbgUg'UZhYf'U'ghfcb[''A'b]cf'gYUgcbž'hi fb]b['Xck b a U'cf'gW.cc`g'`]_Y': `cf]XU'GhUhY"



; UXgXYb '7ci b hmž: `cf]XU'!' → 'U'g][b]Z]WUbha cj Y'Zcf'h\Y]f
ZcchVU``dfc[fUa ž'h\Y'I b]j Yfg]hmcZ'5f_UbgUg'\Ug'gYW fYX'h\Y
Wca a]ha YbhcZ'h\fYY!ghUf``]bYVUW_Yf'8 UmYb'; fYYb'Zfca
; UXgXYb'7ci b hmž: `cf]XU"': c``ck]b['Ub'cZZ]W]U`'j]g]hcj Yf'h\Y
k YY_YbXž'; fYYb'Ya VfUWXX'h\Y'F UncfVUW_gž'WcbZ]fa]b['\]g
XYW]g]cb'h\fci [\'U'\YUfhZY`h'a YggU[Y'cb'Hk]hhYfž'YI dfYgg]b[
[fUh]hi XY'hc'U``'h\Y'gW\cc`g'h\Uh'Wci fhYX'\]a "'; fYYb g'W\c]WY
Wca Yg'UZhYf'WUfYZi `'Wcbg]XYfUh]cbž'dfUmYfž'UbX'X]gW gg]cbg'k]h\
\]g'a ch\Yfž'[i]X]b['\]a 'hc'gUj cf'U'bYk'dUh\']b'\]g'Uh\`Yh]W
WUfYYf"

 $\label{thm:condition} $$ \b] cfigY Ugcbž' Y `Ua UggY X `Ub'] a dfYgg] y ``%%%`hUW_`Ygž'] bWi X] b[(``hUW_`Yg'Zcf'`cggž' Ub X `XYa cbghf UhY X 'j YfgUh]`] hmik]h\`- `fY WYdh] cbg Zcf'%) ' ``mUf Xg' Ub X `U'hci W\ Xck b''' <]g'g_]```gY h'b ch'cb`m'\ Y`dY X'\]g hY Ua ž'h\ Y `$\J[i Ufgž'fY UW\ 'h\ Y `7 `Ugg' &5 `ghUhY `Z] bU``Vi h'U`gc `Y Ufb Y X \]a ``U'b chUV`Y `fUb_] b[``Ug'h\ Y `B c''' + %' ``cj YfU``'dfcgd Y Wh'] b'h\ Y bUh] cb ``UWWcfX] b[`hc'h\ Y `Cb' '=\b Xi ghfm'F Ub_] b['''5a cb[`\]g'd Y Yfg]b': ``cf] X Už'\ Y ``ghUb Xg' Ug'h\ Y `B c'''* * ``gUZY hm'Ub X ``fUb_g'B c'''--cj YfU``''$

7ca a]ha Ybhg Ub X F Ub_]b[g

; $fYYb^n]g^ndUfh^ncZ^nU^n[fck]b[^nfcghYf^nZcf^n5f_UbgUg^nk^n]W^nfYWW^nbh^mfYWW^n]j^nyX^nj^nyV^nca a]ha Ybhg^nZfca^nk c^nfYWfi]hg^nz^nbWi X]b[^n6^nU]f^nfj]b^nz^nk]XY^nfYWW^nj Yf^nz^nfca^n6Ybh^ncbj]^ny^nz^nff_UbgUg^nu^nfj]b^nz^na YUgi f]b[^na^ny^nbw^nbh^na^nbh^n$

@cc_]b['Uh'h\Y'VfcUXYf'd]Whi fYž'5f_UbgUg g'&\$&* 'WUgg'W ffYbh'm g]hg'Uh'Ub']a dfYgg]j Y'fUb_'cZ'%h\'bUh]cbU``m'UbX'(h\']b'h\Y'G97 UWWcfX]b['hc'7ca dcg]hY'hYUa 'fUb_]b[g"'H\Y'FUncfVUW_g'UfY YU[Yf'hc'VfYU_']bhc'h\Y'hcd'&) 'Zcf'fYWfi]h]b['Z]b]g\Ygž'\Uj]b[ZUWYX'W\U``Yb[Yg']b'h\Y'dUgh'hk c'WmWYg'h\Uh'gUk 'h\Ya 'fUb_YX' \$h\'UbX'' &bXž'fYgdYWh]j Y`m''5'gc`]X'fYWfi]ha Ybh'ghfUhY[m'gYYa g hc'VY']b'd`UWYž'U]a]b['hc'fYj YfqY'h\Y]f'hfU'YWhcfm''

- IJmicb; l'a cfY fh\fYY!ghUf ei UfhYfVUW ž; UZZbYmž G"7"Ł
- 8 Yei UbY DfYj c'fh\fYY!ghUf'k]XY fYWY]j Yfž HYl Uf_UbUž HYl UgŁ
- FcVYfh' < UmbYg' = J'fk]XY'fYWY]j Yfž'A]ggcif] 7]hmž'HYI UgŁ
- <i [\ 'Ga]h\ 'ft\ \textsqrap Y \cdot]b Ya UbŁ
- $?UXY'6ig\fh\fYY!ghUf'h][\h'YbXž'7\Ub\UggYbž'A]bb"$
- *J]j]cb A Ufh]b fh][\h Yb X Ž DZi [Yfj]``Y Ž HY I UgŁ

K]h\ 'XYZYbg]j Y 'Wca a]ha Ybhg'fc``]b[']b'Ug'k Y``ž']bWi X]b['bchUV`Yd`UmYfg'`]_Y 'Zci f!ghUf'YX[Y'7c`hcb'MUfVfci [\'UbX'h\fYY!ghUfWcfbYfVUW_'\d'cb'7cdY`UbXž'h\Y'FUncfVUW_g'UfY'bch''\f gh'ZcW' g]b[cb'cZZYbg]j Y 'hU`Ybh'Vi h'UfY'U`gc'Zcfh]Zm]b['h\Y]f'XYZYbgY"'5g'h\Ym[YUf'i d'Zcf'h\Y'i dWca]b['gYUgcbž'h\YgY'mci b['dfcgdYWhgfYdfYgYbh'\cdY'UbX'dchYbh]U`'Zcf'h\Y'Zi hi fY'cZ'5f_UbgUg'ZcchVU``"

 $8 \ Um Yb ; f Y Yb g `Wca a] ha Ybh `] g `U `h Y gh Ua Ybh `hc `h Y `gh f Uh Y [] W Y Z C f hg `V Y] b [`a U X Y `V m `h Y `F U n c f V U W_g `Wc U W] b [`gh U Z Z ` 7 c U W A U f W g `K cc X g c b `U b X `G W c hh : c i b h U] b `d `Um Y X `Wf i W] U ``f c `Y g `] b U h h f U Wh] b [`; f Y Y b z `U `d `Um Y f `k \cg Y `j Y f g U h] `] h m `] g `U b h] W] d U h Y X `h c g \] b Y `k \Y h \Y f `\Y `h U_Y g `h \Y `Z] Y `X `U g `U ``] b Y V U W_Y f `c f `h f U b g] h] c b g `h c U `\ m V f] X `c f `B] W_Y ``d c g] h] c b `Uh `h \Y `b Y I h ``Y j Y `" `5 g `; f Y Y b `gh Y d g `] b h c h \] g `b Y k `W U d h Y f z 5 f_U b g U g `Z U b g `U f Y ``Y Z h `Y U [Y f `U b X `\ c d Y Z i ``Z c f k \U h g `h c `W c a Y "$

 $: cf'a\ cfY'cb'8\ Um'Yb';\ fYYb\ g'Wca\ a\]ha\ Ybhž'mci' `WUb'fYUX'UVci\ h']h\ Uh'Cb' "'8YhU]`g'cb'5f_UbgUg'cj YfU```fYWfi]h]b['ghfUhY[m'UbX ch\Yf'Wca a]ha Ybhg'WUb'VY'Zci bX'Uh'&(+Gdcfhgž'UbX'Zi fh\Yf]bg][\hg']bhc'h\Y'F UncfVUW_g'fYWYbh'g][b]b[g'UfY'Uj U]`UV`Y'Uh' DUW_Yfg'K]fY''$

8YhU]`g	
Cfh	; UXgXYb 7ci bhmž: `cf]XU
EiY``Yb	• k k k "cb' "Wca
	&(+gdcfhg"Wca
	dUW_Yfgk]fY"i gUhcXUm"Wca

6 Ygi W Yb G | Y i bg Ui Z a Y | b ! k | Yb "b Yh