DUbh\Yfg'7`]bW\GhUb`Ym'7i d'5[U]b. 6cVfcj g_m'GhUbXg'HU``']b'; Ua Y'*

 $H\Y': `cf] XU'DUbh\Yfg'gYW'fYX'h\Y]f'gYWcbX'WcbgYW'h]jYGhUb`Ym'7idž'XYZYUh]b['h\Y'9Xacbhcb'C]`Yfgž'k]h\'GYf[Y]6cVfcjg_m/_$'-/g'ghY``Uf'[cU`]Y'dYfZcfaUbW'\][\`][\hYX"$



 $fYg]`]YbWY`UbX`hU`Ybh`\Uj Y`VYYb`j]hU``hc`h\Y`DUbh\Yfg`gi WWYgg h\]g`gYUgcbžYgdYW]U``m`Xi f]b[`h\Y`d`UmcZZgž'k \YfY`\Y`d`UmYX`U`` &' `[Ua Yg`UbX`VcUghYX`U`fYWcfX`cZ'%*!+ž'k]h\`Ub`]a dfYgg]j Y [cU`g!U[U]bgh`Uj YfU[Y`fl 55Ł`cZ'&"&$`UbX`U`gUj Y`dYfWYbhU[Y`cZ"- %("`BchUV`mž'6cVfcj g_m`U`gc`fYWcfXYX`h\fYY`g\i hci hg h\fci [\ci h`h\Y`d`UmcZZgž'dfcj]b[`hc`VY`U`Zcfa]XUV`Y`k U```U[U]bgh cddcg]b[`hYUa g": `cf]XU`XYZYbgYa Ub`GYh\`&bYg`\UX`[`ck]b[k cfXg`Zcf`h\Y`bYha]bXYfž'WU``]b[`\]a `U` ghcbY`k U``ž `U`gYbh]a Ybh h\Uh`fYgcbUhYg`k]h\`ZUbg`UbX`d`UmYfg`U`]_Y"$

6cVfcjg_mg'D`UmcZZ'xcifbYm

$$\label{thm:condition} \begin{align} & Hc 'di h'6cVfcj g_mg'dYfZcfa UbWY']bhc 'WcbhYl hž'\]g'ghUh]gh]WU' dfck Ygg'Xi f]b['h\ Y'GhUb `Ym'7i d':]bU`g'g\ck WUgYg'Vch\ '\][\g UbX'`ck g"'K]h\ 'U'(!&'fYWcfX']b'h\ Y'Z]bU`gž'6cVfcj g_m'\UX'U'; 55 cZ'&"() 'UbX'U'gUj Y'dYfWYbhU[Y'cZ'"-%-ž'Ya d\Ug]n]b['\]g'Wf]h]WU' fc `Y'cb'h\ Y'hYUa "'-\D'h\ Y'dfYj]ci g'Z]bU`g'U[U]bgh'h\ Y'J Y[Ug'; c`XYb?b][\hgž'\ Y'ZUWYX'W\ U``Yb[Ygž'cZhYb'VUhh`]b['cb'a i `h]d`Y'Zfcbhg": cf']bghUbWYž']b'; Ua Y'%cZ'h\ Y'&$&!&':]bU`gž'\ Y'ghfi [[`YX'k]h\ U'", +-'gUj Y'dYfWYbhU[Y'UZhYf'U``ck]b['Zci f'[cU`gž']``i ghfUh]b['h\ Y' fc``YfWcUghYf'bUhi fY'cZ'd`UmcZZ'\cW_Ym'' \end{align*} \end{align*}$$

H\]g`mYUfž`\ck Yj Yfž'k Ugʻa Uf_YX`m'X]ZZYfYbh" \div h\Y``UhYgh'Z]bU`g gYf]Yg`U[U]bgh'h\Y`C]`Yfgž'6cVfcj g_m'ghccX`ci h'k]h\`a ca Ybhg`cZ Vf]``]UbW'ž']bWi X]b[`Wca dUfUh]j Y`k]bg`UbX``cggYg.`\Y`gdi ffYX`h\Y DUbh\Yfg`hc`Wfi W]U``j]Whcf]Ygž'k]h\`\]g`hchU``gUj Yg`Zfca `h\Y`gYf]Yg hU``m]b[`i d`hc') %' `cj Yf`%\$* + `a]bi hYg`cZ'd`Um'' <]g`cj YfU```gUj Y dYfWYbhU[Y`h\fci [\`U``[Ua Yg`\cj YfYX`Uh'", - ' ž`UbX`k \]`Y`h\YfY k YfY`W\U``Yb[Ygž'\]g`dYfZcfa UbWY`k Ug`U`Zci bXUh]cb`Zcf`Vi]`X]b[h\]g`W\Ua d]cbg\]d`fi b"`H\Y`DUbh\Yfg`fcUX`hc`h\Y`Z]bU`g`\Ug`VYYb dUj YX`bch'cb`m'Vm'6cVfcj g_mg`ghcdg`Vi h'U`gc`hYUa `[f]h`UbX fYgc`j Y"

\cW_YmbUffUh]j Y"'H\Y'C]`Yfgž'XYgd]hY'h\Y]f'UhhYa dhg'UbX'j Uf]ci g ghfUhY[]Yg']bj c`j]b['hk c'[cU`]Ygž'Ghi Ufh'G_]bbYf'UbX'7U`j]b D]W_UfXž'g]a d`m'Wci `Xb h'Z]bX'h\Y'Ubgk Yf'hc'6cVfcj g_m g i bm]Y`X]b['XYZYbgY"

H\Y'6][[Yf'D]WhifY

H\Y'DUbh\Yfg'j]Whcfm'g][b]Z]Yg'a cfY'h\Ub''i gh'Ubch\Yf'hfcd\m']h
]``i ghfUhYg'U'dck YfZ ``Wcbh]bi]hm'k]h\]b'h\Y'hYUa ž'dUj]b['h\Y'k Um
Zcf'Zi hi fY'Ugd]fUh]cbg"'\$
\$\frac{1}{3}\text{gh'U'mYUf'df]cfž'h\Y'DUbh\Yfg'ZUWXX'h\Y
C]`Yfg']b'U'\UfX!Zci [\h'gYf]Ygž'k\]W\'h\Ym'bUffck `m'k cb']b'gYj Yb
[Ua Yg"'H\]g'UV]`]hm'hc'f]gY'U[U]b'U[U]bgh'h\Y'gUa Y'cddcbYbh'cb`m
ghfYb[h\Ybg'h\Y]f'fYdi hUh]cb'k]h\]b'h\Y'`YU[i Y"

 $6cVfcjg_mg^*[fck h\ "Ug^*U^*d\ "UmcZ'^*dYfZcfa Yf^*\ Ug^*VYYb^*dUfUa ci bhž UbX^*k \]^Y^*\ Y^*ZUWYX^*hf]U^*g^*]b^*YUf^*]Yf^*gYUgcbgž^*\ Y^*\ Ug^*Vci bWYX^*VUW_ghfcb[Yf''^* + g^*U^*hYghUa Ybh^*hc^*\]g^*Wca a]ha Ybh^*UbX^*dUgg]cb^*Zcf^*h\ Y [Ua Yž^*UbX^*Zcf^*h\ Y^*ZUbgž^*]h g^*U^*h\ f]^*`]b[^*gU[U^* cbY^*h\ Uh^*a][^*h^*^4gh^*VY^*h\ Y^*VY[]bb]b[^*cZ'a cfY^*[ccX^*h\]b[g^*hc^*Wca Y^*Zcf^*h\ Y^*: `cf]XU DUbh\ Yfg''$

5g'k Y'WY'YVfUhY'h\]g']a dfcVUV'Y'UbX'W\Yf]g\YX'j]Whcfmž'k Y'WUbcb'm'`cc_'Zcfk UfX'hc'k\Uh'`]Yg'U\YUX"': `cf]XU'\c`Xg']hg'VfYUh\ž\cd]b['Zcf'a cfY'gi W\'YI\]`UfUh]b['a ca Ybhgž'UbX']Z'UbmcbY'WUbXY`]j Yfž']h g'h\Y' ghcbY'k U`` '\]a gY`Zž'GYf[Y]'6cVfcj g_m"

8 YhU]`g	
Cfh	9Xa cbhcbž7UbUXU
EiY``Yb	• k k k "b\`"Wca
	• k k k "ghUha i gY"Wca

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