

MDIA5030

6fUbX⁻7i h fYg

HYfa 'H\fYY''##'&\$&\$

7ci fgY 8YW] g

7 fYX]hDc]bhg '%'

Giaa UfmcZh\Y 7ci fgY

5 'VfUbX']g'U'Zi]X'Ybh]mm-bYj Yf'Ybh]fY`m]b'Ub'cf[Ub]gUh]cb'g'Wcbhfc`"'H\]g']g'VYWUi gY'W ghca Yfg''ck b' VfUbXg"'H\Y'VYghVfUbX'a UbU[Yfg'h\YfYZcfY'gh XmdYcd`Y"'H\YmWcbg]XYf'VfUbXg']b'W'`h fY'UbX'VfUbXg Ug'W'`h fYg"'Bch\]b['\UddYbg'VmW\UbW\"'H\]g'Wci fgY'cZZYfg'mci 'h\Ycf]Yg'UbX'hYW\b]ei Yg'Zcf'gh Xm]b[VfUbX'W `h fYg"'H\YgY'h\Ycf]Yg'UbX'hYW\b]ei Yg'k]``i `h]a UhY`ma U_Y'mci 'U'VYhYf'VfUbX'a UbU[Yf"

H\Y`WcifgY`dfcj]XYg`mci k]h\h\Y`cddcfh b]mmhc`XYj Y`cdž\cbY`UbX`Wcbgc`]XUhY`X]gW]d`]bUfmg_]``g`UbX

5ggYgga Ybh

5ggYgga YbhHUg_g

5ggYgga Ybh'hUg_	K Y][\h	8iY'8UHY	Gh XYbh@YUfb]b[Ci hWca Ygʻ5ggYggYX
K YY_`mW]b]WdfYgYbfUf]cbg	')	Bch5dd`]WUV`Y	%ž&Ž ž(ž)
9ggUmi	(\$1	Bch5dd`]WUV`Y	%ž&Ž Ž(ž)
6fUbX'Ui X]h	&) ı	Bch5dd`]WUV`Y	%ž&Ž Ž(ž)

5ggYgga Ybh'8YhJ]`g

5ggYgga Ybh% K YY_`mW]b]WdfYgYbhJh]cbg

GhUfhXUhY. Bch5dd`]WUV`Y

8YHJ]`g.

Ghi XYbhgʻk]```Wca d`YhYʻgYj Ybʻg\cfhdfYgYbhUhjcbgʻcbʻk YY_`mhcd]Wg"'H\YʻhYUa gʻcZ(ʻfUgg][bYX`YUW\ k YY_Łk]```\Uj Yʻhja Yʻ]bʻWUggʻhcʻdfYdUfYʻUʻdfYgYbhUhjcbʻZfca ``YWhi fYʻUbXʻfYUX]b['a UhYf]U`"''9UW\k YY_mci fʻhYUa 'Zcfh\Uhik YY_k]j YʻUʻa Uf_ʻci hcZ) "'Wci fʻhYUa 'Zcfh\Uhik YY_k]i Yʻh\YʻgUa Yʻa Uf_Vi hmci fʻa Uf_`k]```VYʻfYWcfXYX`]bX]j]Xi U``mUbX'mci fʻhchU`ʻfci hcZ') Łk]``Wca YʻZfca 'U``h\Yʻa Uf_g UW\]Yj YX`Vmh\Y`X]ZZYfYbhhYUa gʻmci k cf_k]h\h\fci [\`h\Y'+kYY_g"

5XX]h]cbU`XYhU]`g.

D`YUgY`gYY`XYhU]`YX`XYgWf]dh]cb`UbX`Xi Y`XUhYg`]b`h\Y`UggYgga YbhgYWf]cb`cb`A ccX`Y"

Hi fb]h]b gYh]b[. H\]g]g bchU Hi fb]h]b Ugg][ba Ybh

5ggYgga Ybh'& '9ggUm

GhUfhXUhY. Bch5dd`]WUV`Y

8YHJ]`g.

' ž\$\$\$ k cfX YggUm'

Gh XYbhg k]``fYWY]j Y k f]hhYb ZYYXVUW_'UbX 'U'bi a Yf]WU`[fUXY"

5XX]h]cbU`XYhJ]`g.

D`YUgY`gYY`XYhU]`YX`XYgWf]dh]cb`UbX`Xi Y`XUhYg`]b`h\Y`UggYgga YbhgYWf]cb`cb`A ccX`Y"

 $\label{thm:conditional} \begin{tabular}{ll} Hi & fb \end{tabular} $$ h' \end{tabular} $$ fb \end{tabular} $$ h' \end{tabular} $$ fo \end{tabular} $$ h' \end{tabular} $$ h' \end{tabular} $$ fo \end{tabular} $$ h' \end{tabular$

5ggYgga Ybh' . '6fUbX'Ui X]h

GhUfhXUhY. Bch5dd`]WUV`Y

8YHJ]`g.

%\$\$\$ k cfXg" H\]g`]g`h\Y`ZbU``UggYgga Ybh'iUg_"

Gh XYbhg k]``fYWY]j Y k f]hhYb ZYYXVUW_UbX U bi a Yf]WU`[fUXY"

5XX]h]cbU`XYhU]`g.

D`YUgY`gYY`XYhJ]`YX`XYgWf]dh]cb`UbX`Xi Y`XUhYg`]b`h\Y`UggYgga YbhgYWf]cb`cb`A ccX`Y"

Hi fb]hjb gYhjb[. H\]g]g bchU Hi fb]hjb Ugg][ba Ybh

FYgci fWfg

DfYgWf]VYX F Ygci fWYg

K YY_`mfYUX]b[g'UfY'dcghYX'cb'AccX`Y"

FYWca a YbXYX FYgci fWyg

K YY_`mfYUX]b[g'UfY'dcghYX'cb'AccX`Y"

7ci fgY 9j U`i Uh]cb UbX 8Yj Y`cda Ybh

±0`UXX]hJcb`hc`h\Y`ei UbhJhUhJj Y`A m9I df]YbWY`gi fj YmžWci fgY`ZYYXVUW_`k]```VY`Wc``YWhYX`h\fci [\`U`g\cfh]b WUgg`ei U`]hUhJj Y`gi fj Ym'`DUghfYWca a YbXUhJcbg`\Uj Y`Wcbhf]Vi hYX`hc`W\Ub[Yg`hc`WUgg`UbX`UggYgga Ybh a UhYf]U`g"`

Gi Va]gg]cb cZ5ggYgga YbhHUg_g

Hi fb]h]b Gi Va]gg]cb

Image: Ybwei bhyfu'dfcv'ya k \yb'uhhya dhjb['hc'gi va]hmci f'Ugg][ba Ybhh\fci [\ 'Hi fb]h]bž'd'YUgY

Hy'Yd\cby'9| hy'fbu''Gi ddcfhcb'-',) '' ' ' %cf'Ya U]''h\Ya 'cb'Y! hy'fbu'hy'hgi ddcfh4 i bgk "YXi "Ui "''Gi ddcfh
\ci fg'UfY', .\$\$Ua '-'%\$.\$\$da 'cb'k YY_XUmg'UbX'-.\$\$Ua '-').\$\$da 'cb'k YY_YbXg'fl *) 'XUmg'U'mYUft"'=Z'mci
UfY'i bUV'Y'hc'gi va]hmci f'Ugg][ba YbhXi Y'hc'U'ZJi 'hk]h\ 'Hi fb]h]b'mci 'a Um'Udd'mZcf'Ub'Y! hy'bg]cbž'Vi hmci
a i ghfYhJ]b'mci f'h]W_Yhbi a VYf'Zfca '9! hy'fbU''Gi ddcfhfU'cb['k]h\ 'Ubmch\Yf'fy'Yj UbhXcW a Ybhgt'hc
]bWi XY'Ug'Yj]XYbW' 'hc'gi ddcfhmci f'Y! hy'bg]cb'Udd']WUh]cb"'=Zmci 'Ya U]''9! hy'fbU''Gi ddcfhmci 'k]'`
Ui hca Uh]WJ'`mfYW']j Y'U'h]W_Yhbi a VYfZ'Vi h]Zmci 'hY'Yd\cbY'mci 'k]``bYYX'hc'gdYW]Z]WJ'`mUg_'Zcf'cbY''
Hi fb]h]b'U'gc'dfcj]XYg'i dXUhy'g'cb'h\Y]f'gmghYa 'ghUh' g'cb'Hk]hyf''

; YbYfU`mž'UggYgga YbhiHug_g'a i ghVY'gi Va]hhYX'Y`YVWfcb]\WJ``mij]U'Y]h\Yf'Hi fb]h]b'cf'U'A ccX`Y Ugg][ba Ybh''=b']bgHJb\W'g'k \YfY'h\]g']g'bchdcgg]V`Yž']hk]```VY'gHJhYX'cb'mci f'\\circ i fgY'g'A ccX`Y'g]hY'k]h\U`hYfbUh]j Y'gi Va]gg]cb'XYHJ]`g"

cfi]bZcfa Uhjcbicbi\ckihcigi Va]hUgg][ba Ybhgicbi]bYij]UiA ccXiY.i\hdg.#gh XYbhi bgk "YXi "Ui #\ck! gi Va]hUgg][ba Ybha ccXiY

5 WUXYa]W<cbYghmUbX D`U[]Uf]ga

D`U[]Uf]ga `]g`i g]b['h\Y`k cfXg`cf`]XYUg`cZch\Yfg`UbX`dfYgYbh]b['h\Ya `Ug`mci f`ck b"`±hWJb`hU_Y`a Ubm Zcfa gžZfca `XY`]VYfUhY`W\YUh]b['hc`UWW]XYbhJ``mWcdm]b['Zfca `U`gci fWY`k]h\ci hUW_bck `YX[Ya Ybh'

IBGK [fcidg'd'U[]Uf]ga]bhc'h\Y'Zc``ck]b['WUhY[cf]Yg.

 $7 \text{ cdm}b[...i g]b[...h\Y.gUa Y.cf.j Yfmig]a] \Uf'k cfXg'hc'h\Y.cf][]bU''hYl h'cf']XYU'k]h\ci h'U\V_bck `YX[]b[...h\Y.cf][]bU''hYl h'cf']XYU'k]h'cf']$

- i bXYfgfUbX mci f'f][\hg'UbX'fYgdcbg]V]`]hJYg'Ug'U'gh XYbhUhl BGK
- VY`Uk UfY`cZd`U[]Uf]ga ž`Wcdmf][\hz'l BGK `Gh XYbh7cXY`cZ7cbXi WhUbX`5VWWdhUV`Y`l gY`cZ I BGK `=\forall H`F Ygci f\W\g`Dc`]\m\m
- VY 'Uk UfY 'cZh\Y 'ghUbXUfXg 'cZVY\Uj]ci f'Yl dYWYX 'cZYj YfmcbY ']b 'h\Y 'l BGK 'Wca a i b]hm
- `cWUHY 'gYfj]WYg'UbX ']bZcfa UH]cb'UVci hI BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZh\YgY'UfYUg'k]``VY'ZJa]`]Uf'hc'mci ž'ch\Yfg'k]``VY'bYk"'; U]b]b['U'gc`]X'i bXYfgHJbX]b['cZU``h\YfY`UhYX'UgdYWng'cZ9@+69'k]``\Y`d'mci 'a U_Y'h\Y'a cghicZmci f'ghi X]Yg'UhI BGK "'\\hd.##qi VYWfi |XYg"`]VfUfm'i bqk "YXi "Ui #\`]qY#JVci hY`]qY