



ARTS2384

Dc`j]h]WU`D\]`cgcd\m

HYfa`Cby`#`&\$%

7 ci fgY`Cj Yfj]Yk

`GHUZZ7cbhUWhi8YHU]`g`

`7cbj Ybcfg`

B Ua Y	9a U]`	5j U]`UV]`]m	@cWU]hcb	D\cbY
>Ua Yg`D\]`]dg	^d\]`]dg4 i bgk "YXi "Ui	A cbXUmj`&!` `da	A cfj Yb`6fck b` ' * _	- ' ,) `&- , +

GW\cc``7cbhUWhi`bZcfa U]hcb

GW\cc``cZ<i a Ub]hYg`UbX`@Jb[i U[Yg

@cWU]hcb. `GW\cc``C Z]W]Z`A cfj Yb`6fck b`6i]X]b[ž@Yj Y``&ž&),

CdYb]b[`<ci fg.`A cbXUm!` : f]XUmž`- Ua `!(.) da

D\cbY. `Ž*%&`- ' ,) `%*, %

: U! . `Ž*%&`- ' ,) `; , +\$)

9a U]: [\U`4 i bgk "YXi "Ui](#)

7ci fgY'8YHJ]`g

7fYX]hDc]bqg`*`

Gi a a UfmcZ'h\Y]7ci fgY

Gi VYWh5fYU. BZ[æabZk

H\Y`Wti fgY`dfcj]XYg`mci`k]h`U`gc`]X`Zci bXU]cb`]b`dc`]h]W]`d\`]cgcd\mVma YUbg`cZWcgY`fYUX]b[g`cZ
W`bhfU`hY]hg`Vmi]h]b_Yfg`gi W`Ug`H\ca Ug`<cVYgž>c\`b`@cW_Y`UbX`<UbbU\`5fYbXh`Dc`]h]W]`d\`]cgcd\m

5ggYgga Ybh

5ggYgga YbhZcf'k]g'wēi fgY']bj c'j Yg' h'fY' UWXYa]WYggUmg'cb' h'Y' h'fY' gYh'iYI hg'' K f]jb['Ub' UWXYa]W YggUma YUbg' _YYd]b[']b'a]bX' gYj YfU' h'Ug_g.

UE'UWW fUHY' mWēbj Ym]b[' h'Y'a YUb]b[' cZ'h'Y' d'f]a Ufm'iYI h'f'k \U'h]g' h'Y' h'i h' U' Yj]XYbW' Zcf' mēi f]b' h'Y' f'Y' h'U]cb'3E/

VE'fYZYW]b['cb' h'Y' d'cgg]V'Y' k YU' _bYggYg' UbX']a d']W]h'cbg' cZ'h'Y' U'i h'c'f'g' d'cg]h'cbg' f'k \U'h'g'f]_Yg' mēi 'Ug Wē'b' h'Y' b' h'c' i' g']b' h'Y' 'f'Y' U]b[' UbX' #ē' f'k \U'h'Z' `ck' g' Z'ca']'h'3E/

Wē'g]h' U]h'b[' mēi f']b' h'Y' f'Y' h'U]cb']b' f'Y' U]h'cb' h'c' 'YI]g]h'b[' Wē'a a Yb' h'U]f]Yg' f'k' c'Yg' mēi f' h'U' _Y' 'cb' h'Y' h'i h'X]Z'Y' f' Z'ca k \U'h' c' h'Y' f'g' \Uj' Y' a UXY' c'Z]h' UbX' W' b' mēi ' d'fcj]XY' f'Y' Ugc'bg' Zcf' mēi f' c'k b' k Umic'Z'f'Y' U]b[' h'Y' h'i h'3E"

K]h'ci h'f'Uē'— Ub' UWW fUHY' YI d'cg]h'cb' cZ'h'Y' d'f]a Ufm'iYI h'— mēi 'a U' _Y']h' \U'f'XY' f' Zcf' mēi f' f'Y' UXY' f' h'c' g'Y' Y' Z'cf']bg' h'U' b' W' Z' h' U' h' mēi f' W']h' W' ' f'Y' a Uf' _g' g'f] _Y' \ca' Y' f'UbX' 'X' c' b' ch' i' g' h' UbX' 'U' " _]' Y' f' V' c'k' " 'cb' U' Z] [a Yb' h'c' Z' mēi f']a U []b' U]h'cb' E"

K]h'ci h'f'Uē'— h'Y' YI d'f'Y' g'g]cb' cZ' mēi f' c'k b' f'Y' Z'Y' W]h'cbg' c' b' h'Y' d'f]a Ufm'iYI h'— mēi 'a U' _Y']h' \U'f'XY' f' Zcf' mēi f' f'Y' UXY' f' h'c' g'Y' Y' h' U' h' g'ca' Y' h']b[']g' V'Y']b[']g' U]X' h' U' h' \U'g' b' ch' V' Y' b']g' U]X' V' Y' Z' f' Y' "

K]h'ci h'f'Uē'— Yb [U [Ya Yb' h'k]h' g'Y' Wē' b' X' U' f' m']h' f' U' h' f'Y' — mēi 'a U' _Y']h' \U'f'XY' f' Zcf' mēi f' f'Y' UXY' f' h'c' g'Y' Y' \ck' mēi f']b' h'Y' f' d'f'Y' h' U]b' f'Y' Z' f' f]b[' h'c' h'Y' a d' c' f' U' m' U' W' X' Y' a]W' i' b' X' Y' f' g' h' U' b' X']b[' c'Z' h'Y']g' g' Y' g' U' h' g' h' U' _Y' Z' b' Y']h' Y' f' Y' d']W]h']b[' k \U'h' c' h'Y' f' g' \Uj' Y' U' f'Y' U' X' m' g' U]X' b' c' f' Z']']b[' Z' c' i' `c'Z' h'Y']f' U' f' [i' a Yb' h'g' "

B 6' '? Y' Y' d]b[' f' U' Z' f' V' U' b' X' f' W']' b' a]b' X']g' YI h' Y' a Y' m' X] Z' W' ' h' U' b' X' ' b' Y' Y' f' V' Y' W' a Y' g' g' h' U] [\ h' Z' c' k' U' f' X' " ' H' c' h' f' m' Z' \ck' Y' j' Y' Z']'g' h'c' g' Y' h' c' i' h']b' h'Y' f'] [\ h' X'] f' Y' W']' c' b' "

5g' U' fi' Y' c' Z' h' i' a V' Z' f' Y' Z' f' f]b[' h'c' Wē'a a Yb' h' U' h' c' f' g' k \Yb' h' Y' m' W']h' W' g' Y' c' f' Y' U' V' c' f' U' h' Y' 'cb' h'Y' d'f]a Ufm'iYI h]g VY' h' Y' f' h' U' b' f'Y' Z' f' f]b[' h'c' h'Y' a 'k \Yb' h' Y' m' g]a d' m' d' U' f' U' d' \U' g' Y']h' c' f' Y' d' Y' U' h' k]X' Y' m' _b' c' k' b' Z' U' W' g' Wē' b' W' f' b]b[']h' g' Wē'a d' c' g]h'cb' c' f']b' Z' i' Y' b' W' " ' #]g' Y' j' Y' b' V' Y' h' Y' f' k \Yb' mēi ' W' U' b' d' i' h' Z' c' k' U' f' X' ' U' b' ' U' f' [i' a Yb' h'c' Z' mēi f' c' k' b']b' f' Y' g' d' c' b' g' Y' h'c' U' Wē'a a Yb' h' U' h' c' f' g' W']h' W' g' a' c' f' Y' U' V' c' f' U' h' Y' 'cb' c' Z' h'Y' d'f]a Ufm'iYI h' "

5ggYgga YbhF i Vf]W'ggUmiGHU' bXUfXg

	< 8	8B	7F	DG	
9I d'cg]h]cb' c'Z]ggi Yg	7 cbj Ymg']b' U Wē' \Y' f'Y' b' h' a U' b' b' Y' f' U' W' Y' U' f' U' b' X' d' f' c' Z' c' i' b' X' W' Y' U' f' Wē'a d' f' Y' \Y' b' g]c' b' c' Z' h' Y']ggi Yg"	7 cbj Ymg']b' U Wē' \Y' f'Y' b' h' a U' b' b' Y' f' U' W' Y' U' f' U' b' X' d' f' c' Z' c' i' b' X' W' Y' U' f' Wē'a d' f' Y' \Y' b' g]c' b' c' Z' h' Y']ggi Yg"	7 cbj Ymg']b' U Wē' \Y' f'Y' b' h' a U' b' b' Y' f' U' W' Y' U' f' U' b' X' d' f' Y' \Y' b' g]c' b' c' Z' h' Y']ggi Yg"	7 cbj Ymg' U Wē'a d' f' Y' \Y' b' g]c' b' c' Z' h' Y']ggi Yg"	
5bU'mg]g	9I \]V]h'g' _]`g Uggc' W' U' h' X' ' k]h' h'Y' d' \]c' g' c' d' \]W' U' b' U' m' g]g' c' Z' h' Y' h' g' Z' c' Z' Y' f']b[']b' b' c' j' U' h'] Y' U' b' X']b' g] [\ h' Z' `]b' h' Y' f' d' f' Y' h' U]c' b' g' "	9I \]V]h'g' _]`g Uggc' W' U' h' X' ' k]h' h'Y' d' \]c' g' c' d' \]W' U' b' U' m' g]g' c' Z' h' Y' h' g' Z' g' \ c' k']b[]b' X' Y' d' Y' b' X' Y' b' W' ' c' Z' h' c' i' [\ h' "	9I \]V]h'g' _]`g Uggc' W' U' h' X' ' k]h' h'Y' d' \]c' g' c' d' \]W' U' b' U' m' g]g' c' Z' h' Y' h' g' "	9I \]V]h'g' _]`g Uggc' W' U' h' X' ' k]h' h'Y' d' \]c' g' c' d' \]W' U' b' U' m' g]g' c' Z' h' Y' h' g' "	9I \]V]h'g' _]`g Uggc' W' U' h' X' ' k]h' h'Y' d' \]c' g' c' d' \]W' U' b' U' m' g]g' c' Z' h' Y' h' g' "
8]gW'd']bU'f' m Wē' b' j' Y' b' h']c' b' g	8 Ya' c' b' g' f' U' h' Y' g' X' Y' U']Y' X' U' h' Y' b' h']c' b' h'c' U' b' X' ' g' i' W' W' Y' g' g' Z' `]a' d' c' f' U' b' h' "	8 Ya' c' b' g' f' U' h' Y' g' Wē' b' g]g' h' Y' b' h' i' g' Y' ' c' Z']a' d' c' f' U' b' h' "	c' ` c' k' g' YI d' Y' W' U]h'cbg' U' d' d' f' c' d' f']U' h' Y' h'c' "	5 h' Y' a' d' h' g' h'c' ' i' g' Y' U' Wē' b' g]g' h' Y' b' h' g' m' g' h' Y' a' Z' c' f' V' U' g]W' "	

	YI YW h]cb`cZU k]XY`fUb[Y`cZ W`bj Ybh]cbg dUfh]W`Uf`hc`h.Y UWXYa]WYggUm]b d\]cgc d\mž]bWi X]b[cf[Ub]gUh]cbž W`bhY`bž dfYgYbhU]cbž fYZfYbW]b[ž Zcfa U]h]b[`UbX gm]gh]WXX.c]Wg"	W`bj Ybh]cbg dUfh]W`Uf`hc`h.Y UWXYa]WYggUm]b d\]cgc d\mž]bWi X]b[cf[Ub]gUh]cbž W`bhY`bž dfYgYbhU]cbž fYZfYbW]b[ž Zcfa U]h]b[`UbX gm]gh]WXX.c]Wg"	d\]cgc d\mUbX`h.Y UWXYa]WYggUm Zcf`VUg]W cf[Ub]gUh]cbž W`bhY`bž`UbX dfYgYbhU]cb"	cf[Ub]gUh]cb`UbX dfYgYbhU]cb"
7]h]cbg`UbX ei c]h]cbg	8Ya cbgfhU]g W]h]W`m`fYZYW]j Y i`gY`cZfY`Yj Ubh gci fW]g`hc UXj UbW Uf[i a Ybh`	8Ya cbgfhU]g fYZYW]j Y`i`gY`cZ fY`Yj Ubh]gci fW]g hc`gi ddcfh dcg]h]cb"	8Ya cbgfhU]g`Ub U]h]Ya dh]c`i`gY fY`Yj Ubh]gci fW]g hc`gi ddcfh dcg]h]cb"	8Ya cbgfhU]g`Ub U]h]Ya dh]c`i`gY gci fW]g`hc`gi ddcfh]XYUg`]b`h.Y`YggUm`
Gmb]U] ž di`bWi U]h]cb`UbX j`cW]Vi`Ufmi]`gYg[fUW]Z` `Ub[i U[Y`h.Uh W`a a i b]W]h]g a YUb]b[`k]h WUf]hm]UbX`Zi YbWm UbX`]g`j]fh U`m Yffc]f]žYY"]`gYg gh]U]]`hž`fk UfX `Ub[i U[Y`h.Uh [YbYfU`mW`bj Ymg a YUb]b[`hc fYUXYfg" H.Y`Ub[i U[Y`]b h.Y`YggUm`\Ug`Zk Yffc]fg"]`gYg`Ub[i U[Y h.Uh[YbYfU`m W`bj Ymg`a YUb]b[hc`fYUXYfg`k]h WUf]hm]U`h]ci [\ k f]h]b[`a Um]bWi XY`gca Y Yffc]fg"]`gYg`Ub[i U[Y h.Uhgca Y]h]a Yg]a dYXYg`a YUb]b[Y]W]i`gY`cZYffc]fg]b`i`gU[Y"

H.Y`]VfUfm`Ug`UW]gg`hc`h.Y`7`]\W] [c`A Ubi U`cZGm]Y.

\`hd.##k k k "VX]W] [ca Ubi U`cZgm]Y"cf["k k k dfcl n%"]VfUfm]i bgk "YXi "Ui #/cc_#X%+ #fcbra U]h]f#`cW`ha`

7 cbgi `h]h]g`Zcf`XYh]]YX`UbX`Ui`h]cf]h]h] Y`]bZcfa U]h]cb`cb`fYZfYbW]b["

5ggYgga Ybh]Ug_g`

5ggYgga Ybh]Ug_	K Y][\h	8i Y`8U]Y	Gh XYbh]@YUfb]b[Ci`hW`a Yg`5ggYggYX
F YgYUfW]`YggUm%`\$\$`k`cfXg`	` \$i		

GhUfhXUHy.

8YHU]g. Gh XYbthg k fhY U'fYgYUfWk YggUmcb hLY ZfghfYUX]b['!%*\$ \$k cfXg": YYXVUW_k]`hU_Y hLY Zcfa 'cZ U'fi Vf]WUbX']bX]j]Xi U'Wta a Ybthg"

5XX]h]cbU'XYHU]g.

: cWg.<cVVYg

9ggUmhcd]Wg.

%&<cVVYg'dU]bthg Ub'i bZUthYf]b['dcffU]hcZa Ub']b'hLY'ghUthY'cZbUth fY""K \UhXcYg'h]g'dcfffU]h\Y'd <cVVYg'hc'Uf[i Y3'Hc'k \UhWf]h]W]ga g'XcYg']hYI dcgY'\]g'UWwci bhczhLY'Zci bX]b['cZU'Wta a cbk YU'h.3

&K]h'\]g'hLYcfmicZWcj YbUbth]b['<cVVYg[fci bXYX'hLY'Wta a cbk YU'h]b'WcbgYbth''6i h]b'k \Uhk Umg XcYg'\Y'ei U]ZmUbX'X]i hY'h.]g'WcbgYbth''K \UhWUb'VY'gU]X'Zcf'UbX'U[U]bgh<cVVYg'g'bc]cb'cZWcbgYbth

' E<cVVYg'a UXY'gYW f]hmhLY'fU]hcbU'Y'cZhLY'a cXYfb'ghUthY'Ug'ZUf'Ug'gi V'YWg'UfY'WcbWfbYX""g'h]g'\ck hLY'ghUthY']g'WcbW]j YX'hcXUmB''5fY'hLYfY'U'hYfbU]h] Yg3''K \UhdVcV'Ya g'WUb'mci]XYbthZmik]h'gYW f]hm UbX#cf'k]h'U'hYfbU]h] Y'fU]hcbU'Yg'gi Wk'Ug'fY'[]ci g'cVYX]YbW'UbX'hLY'Zci f]g\]b['cZhLY']bX]j]Xi U'3

Gh XYbthg'UfY'YbWci fU[YX'hc'XYj]gY'hLY]f'ck b'YggUmhcd]Wg]g]bW'gY'Z]X]fYW'X'fYgYUfWk'Ug'Ub i bXYf[fUXi UthY']g'Ub'YI W''Ybthk Umhcd'fYdUfY'Zcf'dcgh[fUXi UthY'gh' Xm'D'YUgY'Wcbgi 'h'hLY'Wci fgY Wcbj Ybcf'Zcf'Uddfcj U'cZmci f'WkcgYb'hd]W

Hi fb]h]b'gYth]b[. H\]g'Ugg][ba Ybh]g'gi Va]hYX'h'fci [\Hi fb]h]b'UbX'ghi XYbthg'Xc'bchgY'Y'Hi fb]h]b g]a]Uf]mifYdcfthg"

5ggYgga Ybh&. F YgYUfWk YggUm%*\$ \$k cfXg

GhUfhXUHy.

8YHU]g. Gh XYbthg k fhY U'fYgYUfWk YggUmcb hLY'gYWcbX'fYUX]b['!%*\$ \$k cfXg": YYXVUW_k]`hU_Y hLY Zcfa 'cZU'fi Vf]WUbX']bX]j]Xi U'Wta a Ybthg"

5XX]h]cbU'XYHU]g.

: cWg.'@W_Y

9ggUmhcd]Wg.

%&@W_Y']g'U'hLYcf]ghcZ']a]hYX'[c] Yfba Ybth''K \UhUfY'hLY'WXYW_g'hUh\Y'd'UW'g'cb'YI YW'h] Y'dck Yf3' K \UhdVcV'Ya g'Xc'mci 'X]gWfb']b'hLYgY'WXYW_g3''<Uj Y'hLYmWkUb[YX'c] Yf'hLY'gi W'WYX]b['W'bh'f]Yg3

&E<ck'XcYg'@W_Y'i bXYfghUbX'WcbgYbth''K \Uhi gY'XcYg'\Y'a U_Y'cZ]h]B''K \UhcV'YW]cbg'WUb'VY'a UXY hc']h]B

' E@W_Y'g'Uf[i a YbhZcf'fY'[]ci g'hc'YfU]hcb'XfUk g'cb'DfchY'ghU]h]XYUg'WcbWfb]b['hLY'gUbW]hmicZ]bX]j]Xi U'WcbgWYbW''K \UhUfY']h]g'ghfYb[h'g'UbX'k YU_bYggYg3

Gh XYbthg'UfY'YbWci fU[YX'hc'XYj]gY'hLY]f'ck b'YggUmhcd]Wg]g]bW'gY'Z]X]fYW'X'fYgYUfWk'Ug'Ub

i bXYf[fUXi UHY 'jg'Ub'Yi W''Ybhk Umhc 'dfYdUFY 'Zcf'dcgh[fUXi UHY 'ghi Xm'D'YUgY 'Wcbgi 'h'AY 'Wci fgY
Wcbj Ybcf'Zcf'Uddfcj U'cZmci f'WXcgYb'hc d]W

Hi fb]hb'gYH]b[. H\]g'Ugg][ba Ybh]g'gi Va]HYX'h'fci [\ 'Hi fb]hb'UbX'ghi XYbtg'Xc'bcHgYY'Hi fb]hb
g]a]Uf]mifYdcftrg"

5ggYgga Ybh' . F YgYUfWX '9ggUm%* \$\$'k cfXg

GHUfhXUHY .

8YHU]g. 'Ghi XYbtg'k f]HY'U'fYgYUfWX 'YggUmcb'h'Y'h'fX'fYUX]b['!'%* \$\$'k cfXg": YYXVUW'k]''HU_Y'h'AY 'Zcfa
cZU'fi Vf]WUbx'j]bX]j]Xi U'Wca a Ybtg"H\]g'jg'h'AY]bU'UggYgga Ybh'Zcf'UHYbXUbW'idi fdcgYg"

5XX]h]cbU'XYHU]g.

: cWg. '5fYbXh

9ggUmhc d]Wg.

%&'5fYbXh'k]ghg'UbX'gei YYnYg'\]ghcfmhc 'Yi fFUWh'Zca]]hbYUhm'WcbfUgh]b['h'Ycf]Yg'cZfYj c'i h]cb''K \Uh
UFY'h'AY'VYbY]ghg'UbX'XfUk VUW'g'cZ'h]g'UddfcUWX 'hc'h'AY'\]ghcf]WU'fYWcfX3''

&E'5fYbXh'fYh]b_g'ZYXca]]b'h'fa g'cZdUfh]WdU]cb:]b'Wc''YW]j Y'XYW]g]cb!a U_]b[""'9j U'i UHY '\Yf'fYUgcbg
Zcf'h]g'fYXY]b]h]cb"

' E'5fYbXh'fYUhg'h'AY'dc']h]WU'UWcf'Ug'U'g'cfh']j YX'd\Ybca Ybcb'cZ'h'Y'a cXYfb'dYf]cX''K \Uh]UWcf]g'XcYg
g\Y'WU]a 'Wcbf]Vi h'hc'h'AY'XYa]gY'cZ'h'Y'Yi d\cf]WZYXca 'cZdc']h]WU'UW]cb3''K \Uh]g'mci f'UggYgga Ybh
cZ\Yf'dcg]h]cb3

Ghi XYbtg'UFY'YbWci fU[YX'hc'XYj]gY'h'AY]f'ck b'YggUmhc d]Wg'z]g]bW'gY'Z]X]fYW]X'fYgYUfWX 'Ug'Ub
i bXYf[fUXi UHY 'jg'Ub'Yi W''Ybhk Umhc 'dfYdUFY 'Zcf'dcgh[fUXi UHY 'ghi Xm'D'YUgY 'Wcbgi 'h'AY 'Wci fgY
Wcbj Ybcf'Zcf'Uddfcj U'cZmci f'WXcgYb'hc d]W

Hi fb]hb'gYH]b[. H\]g'Ugg][ba Ybh]g'gi Va]HYX'h'fci [\ 'Hi fb]hb'UbX'ghi XYbtg'Xc'bcHgYY'Hi fb]hb
g]a]Uf]mifYdcftrg"

5ggYgga Ybh(. A ccX'Y'Dcgrg

GHUfhXUHY .

8YHU]g. 'Ghi XYbtg'dcghcb'A ccX'Y'' L %\$\$!%) \$'k cfXg'z]cbY'dcgh]Zcf'YUWX'cZ'h'Y'h'fY'gYh]Yi hg'z]b
fYgdcbgY'hc'X]gW'gg]cb'hc d]Wg'XfUk b'i d'Vmigh XYbtg'YUWX'k YY_'Xi f]b['h'AY'h'hc f]Ug"7 cbj Ybcf'dfcj]XYg
ZYXVUW'VmifYgdc]b]b['hc'h'AY'A ccX'Y'dcgrg"

5XX]h]cbU'XYHU]g.

Ghi XYbtg'UFY'fYei]fYX'hc'dcghU'hcHU'cZ'h'fY'Wcbf]Vi h]cbg'—cbY'cb'YUWX'cZ'h'Y'h'fY'Vcc_g'k Y'k]''VY
fYUX]b['—hc'h'AY'X]gW'gg]cb'ZcfU'cb'A ccX'Y'Vmih'Y'YbX'cZ'h'Y'gYa Ygh'f'hc'VY[]b'dcgh]b["

Hcd]Wg'Zcf'h'AY'X]gW'gg]cb'Zcfi a 'k]''VY'XfUk b'i d'YUWX'k YY_]b'h'AY'h'hc f]U'UbX'dcgh'X'Vmih'Y'Wci fgY
Wcbj Ybcf''h]g'i bk]gY'hc''YUj Y']hi bh]'h'AY'YbX'cZ'h'Y'gYa Ygh'f'hc'VY[]b'dcgh]b["

A Um		F YUX]b[. '5fYbXhžA` DWha ğf[a` ždd"'(-!% %
K YY_%% '%('A Um!`&\$ A Um	@YWh fY	Hcd]W`H\Y`5a Yf]WUj`F Yj c`i ħcb F YUX]b[. '5fYbXhžA` DWha ğf[a` ždd"'% &!&\$*
K YY_`%&. '&%A Um!`&+ A Um	@YWh fY	Hcd]W`DcghF Yj c`i ħcbUfmGcWYĥYg F YUX]b[. '5fYbXhžA` DWha ğf[a` ždd"'&\$+!+'
K YY_`% . '&, 'A Um!`' >i bY	Hi ħcf]U`	Hi ħcf]U`cb`m`'Bc`YWh fY"

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

H\YfY`UfY`h\YfY`fYeI`]fYX`hYI`hg`Zcf`h\]g`Wci`fgY"5`UfY`Uj`Uj]UV`Y`Zcf`di`fWUgY`Zca`h\Y`I`BGK`'6cc_g\cd"

%" H\ca Ug`<cVvYgž>Wh[SfZS`žYX"7"6"A UWd\Yfgcb`f@cbXcb.`DYb[i]bž%- ,) Ł"
&" >c\b`@cW_YžFZWEWJa` V Fd\sf[eWaX9 ahWd` _ W f S` V 3 >WfWd5a` UWd` [Y Fa WdSf[a` fA]bYc`Už
B M`8cj`Yfž`&\$&Ł"
' " <UbbU\`5fYbXfžA` DWha`gf[a` f@cbXcb.`DYb[i]bž&\$*\$Ł"

F YWca a YbXYX`F Ygci fWg

Gi [[YghYX`Z`fH\Yf`fYUX]b[`cb`<cVvYg.

5i VfYmž`>c\b" "H\ca Ug`<cVvYg"]b`4d[VX>[hWēžH\YfY`UfY`a`i`hd`Y`YX]h]cbg`cZh\]g`W`YVfUfYX`YUf`m`
V]c[fUd\m`

6Ui a [c`Xž8YVcfU\`&\$\$, " "H\Y`8]Z]W`h]Yg`cZ<cVvYg`bH`fdYfU]h]cb""`Ba`f[US`FZWack`' * . ; &+!)) "

Gcj YfY][b'UbX'DYcd'Y]b' <cVVYg'g'Dc`h]W`H\Ycfm` 4df[eZ <agd S^ XdfZW: [efack aXBZ[aeabZk
% .) +)!- *"

Hi WzF]WUX"%- - "'H\Y'7]j]'F Y][]cb'cZH\ca Ug' <cVVYg`"' B'Ba f[US^6 [eUagdbW[7SdK ? aVWd
4d[S[žYX]hYX'VmB]Wxc'Ug'D\`]dgc b'UbX'E i Ybh]b'G_]bbYfz%&\$!'''''' , "'7 Ua Vf]X[Y.'7 Ua Vf]X[Y
I b]j Yfg]mDfYgg"

J Ui [\Ubž; YcZYmA "'&\$%\$"'H\Y'5i X]YbW'cZ@y]]U\Ub'UbX'hY'5i X]YbW'cZ'''''' <cVVYg'g'Dc`h]W`
D\`cgcd\m`": [efack aXBa f[US^F ZagYZf&&. ((, !+%"

Gi [[YghYX'Z fH\Yf'fYUX]b['cb'@cW_Y.

6Y'UbžH"A "'&\$%*"@cW_Y'cb'Hc'YfU]cbžf]bE7]j]mUbX'hY'E i YghZcf'7 cbWcfX`": [efack

aXBa f[US^F ZagYZf' +.)) *!, +"

6fUXmž'A]WY`Y"'&\$%+"5W]b['Zcf'hY'Di V]W; ccX.'@cW_Y'cb': fYXca 'UbX'>i X[a Ybh` ; fWd Sf[a` S^
BZ[aeabZ[US^C gSdWk') +. ('!*\$"

6fck bžJ]j]YbbY"'% - - "'H\Y':] [i fY'cZ; cX'UbX'hY'@]a]hg'hc '@VYfU']ga . '5 '''''''''' F YfYUX]b['cZ@cW_Y'g
'9ggUm'UbX'Hk c'HfYU]gYg`"' <agd S^aXfZW: [efack aX ;VWSe *\$. , ' !%\$\$"

6fi VU_YfžGHUb'Ym7 "'&\$%&"7 ca]b[']bhc'CbY'g'Cb k b.'>c\ b'@cW_Y'g'H\YcfmicZ''''''DfcdYfmž; cXžUbX
Dc`h]W`"'F ZWDWh[W aXBa f[Ue'+(. '&\$+!' &"

; fUbžF i h'K "'&\$%&">c\ b'@cW_Y'cb'7 i ghca 'g'Dck Yf'UbX'F YUgcb'g'5i hcf]m`"'FZW DWh[W aX
Ba f[Ue'+(. '*\$+!&- "

A cchž; 'Ybb'UbX'; fY[': cghYf"'&\$%\$"'E S'ge babg[egbdW_S Wj.'>c\ b'@cW_Y'j Yfgi g'7 cbh'a dcfUfm
8Ya cWU]WH\Ycfm`"B WcbWUf]hWé a` Ba f[US^E U[W UW' -. ")!()"

A mYfgžDYHf'7 "'% - -) "'6Yhk YYb'8]j]bY'UbX'<i a Ub'Gcj YfY][bhm'H\Y'GHU'h'cZBUh' fY'UbX'hY'6Ug]g'cZ
@cW_Y'g'Dc`h]W`H\ci [\h`"'Ba f[k '&+. '* &- !(- "

DUgei]bcžDUgei U'Y"'% - , "'@cW_Y'cb'?]b['g'DfYfc[Uh] Y`"'Ba f[US^F ZWack, 3` ; fWd Sf[a` S^<agd S^
aXBa f[US^Zkž

E aU[S^5 df[U[e_ ') . ' + * %d - %"

H)YfbYnř'6f)Ub"&\$\$) ""<]ghcf)WJ`F cchg'cZA cXYfb'F][\hg. '6YzcfY`@cW_Y`UbX'5ZYf""'3hW? SdS >Si
DWh[W ' . : & ! (' "

j Ub`XYf'GWUufz'A Uf)U" &\$%&"@cW_Y`cb`>i X[Ya YbhUbX'F Y][]ci g'Hc`YfUhc""'4df[eZ <agd S^XdfZW
: [efack aXBZ[aeabZk`&\$.(%d *, "

J c[hř'D\]]d"% - + "@cW_Yž9XYb`UbX`Hk c`GHUHyg'cZBUh fy. H\Y: cfhi bUHy: U`F Yj]g]hYX"" <agd S^aX
fZW: [efack aXBZ[aeabZk") .) & ! (("

K U`Xfcbž>YfYa m'% - , - "">c\b`@cW_Y. GcWU`7 cbhfUWhj Yfgi g'Dc`]hWJ`5bh\fcdc`c[m]"FZWDWh[W aX
Ba f[Ue') % ' ! & , "

"&\$\$&"9 aVl >aU] WS` V 7cgS ffk, 5 Zdef[S` 8ag` VSf[a` e aX>aU] We Ba f[US^F ZagYZf#

A U[i bž5fY a m'&\$\$+"H\Y'8ci V\Y'6]bX. 'H\Y'5a V]j U\YbhHFYUha YbhcZHfU[]WDUgg]cbg'i]b' < UbbU\ 5fYbXhg'H\YcfmcZF Yj c'i h]cb"" : [efack aXBa f[US^FZagYZf &, .' +%- ! (*"

J]`Už8UbU'F]WUfX"% - - "Ba f[Ueł BZ[aeabZkl Fwbbad 7eeSke a` fZWFZagYZfaX: S` ` SZ 3dW VfzDf]bW hcbžB >. 'Df]bW hcb'I b]j Yfg]mDfYgg"

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

- VYhYf'a UbU[Y'mci f'hja Y
- i bXYfgHUbX'mci f'f][\hg'UbX'fYgdcbg]V]]hYg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'Vc'dmf][\hž' BGK 'Gh XYbh7cXY'cZ7cbXi WñUbX'5WwdfUV'Y'I gY'cZ
I BGK '⇒H'F Ygci fW'g'Dc']Wñ
- VY'Uk UfY'cZh'Y'ghUbXUfXg'cZVY\Uj]ci f'YI dYWñX'cZYj Yfmcby']b'h'Y'I BGK 'Wca a i b]m
- `cWñH'gYfj]W'g'UbX']bZcfa Uñcb'UVci hi BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZh'YgY'UfYUg'k]`VY'ZJa]]Uf'hc'mci ž'ch'Yfg'k]`VY'bYk ""

K '⇒H'F Ygci fW'g'Dc']Wñ

5 WUXYa]WbZcfa Uhcb`

: cfYggYbhU`ghi XYbh]bZcfa Uhcb`fY`Uh]b[`hc. fYei Yghg`Zcf`YI hYbg]cb/fYj]Yk `cZa Uf_g/cVW dUh]cbU`YU`h
UbX`gUZ`m/YI Ua]bUh]cb`dfcW`Xi fYg/gdYW]U`Wc]bg]XYfUh]cb`]b`hY`Yj YbhcZ]`bYgg`cf`a]gUXj Ybhi fY/
ghi XYbhYei]mUbX`X]gUV]`]m`UbX`ch`Yf`YggYbh]U`UWUXYa]W]bZcfa Uhcbž
gYY`[\frdg.##k k "Ufng"i bgk "YXi "Ui #W ffYbh\]ghi XYbh\]#UWUXYa \]W\]bZcfa Uhcb#dfc\]cWc`gl`i \]XY`\]bYg#](#)

⇒ U[Y`7 fYX]h

GmbYf[]Yg`]b`Gci bX`&\$%*`

7F ⇒ CG

7F ⇒ CG`Dfcj]XYf`7cXY.`\$\$\$- ;