

=&>& ! #3/34)#& ? \$/*)#& (\$)#*+&61)4*34- . &@A& ! BC& D)##&E;E=& F-\$5G)H51&JKA;&<&9K;;&LM . M&

k

N/5*1-4*''1K! "#\$!%&'()*!+,,-&../!+0\$ "\$/! 1 \$2\$/!345567/!855! ! ! ! ! !!!! 7 ''34\$&O''4)*3''/K! 1 +4!9:;<! P.)3#K!=,,-&..>?@

;;

B\$4''..\$/G\$G&F\$X*K!

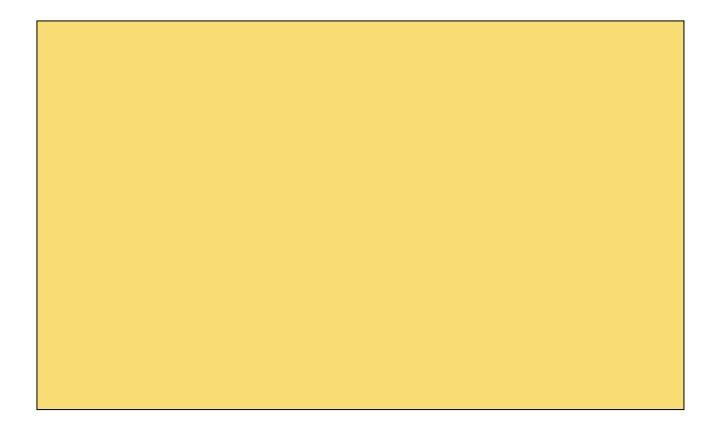
 $+ \#S\&\#O/! \setminus \$!M\$!D9: ?GH\$! <= \$0\#\%''(+> '\#)\$\#?#.; \$\%\&'()\#*\&.\$)''\&'*2\$9(\&:$

- Q-O=!*BO!#=P=-O=!P&B'.#)P.-O=!S==ON*PC!
- N=!&K=B!.&!(=*#-BQ!S==ON*PC!S#&L!K==#'/!')K=#O-'&#/!*BO!-B'.#)P.&#!
- .(&)Q(.S),,J!-LK,=L=B.!S==ON*PC!#=P=-O=O!S#&L!K==#'/!')K=#O-'&#/!*BO!-B'.#)P.&#!
- &K=B,J!'(*#=!=fK=#-=BP='/!.(&)Q(.'/!*BO!S==,-BQ'!*'!*!N=Q-BB-BQ!P&)B'=,&#!
- N=!K#=K*#=O!S&#!N&.(!-BO-O-O)*,!*BO!Q#&)K!')K=#O-'-&B!
- #='K=P.\$),,J!*''=#.!O-=R'!-B!Q#&)K!*BO!-BO-O-O)*,!')K=#O-'-&B!

JC 713\$/*)*3''/&6)L\$15&@ECK!7.)0=B.'!R-,,!N=!*''-QB=0!.R&!K*K=#'!-B!R(-P(!.(=J!R-,,!=fK,&#=!.(=-#! *KK#&*P(!.&!.(=!P&)B'=,-BQ!K#&P=''\$!4#&LK.'!R-,,!N=!K#&0-0=0!NJ!.(=!S*P),.J!')K=#0-'&#\$!7.)0=B.'!R-,,! 0-Q-.*,,J!')NL-.!.(=-#!K*K=#'!.&!.(=!-B'.#)P.&#!S&#!#=0-=R\$!&

'**44#9\$**''**6**\$0**4**!0%3\$**62**!#\$**!**:106!''**1**;!\$<0!=**6**!**1**>>**6**50**62**!?<**3**!>3**62**#0**6**!**2**''-QBL=B.'!*#=!0)=!NJ!.(=!0*.=!-B0-P*.=0!&B! .(=!'**J**,,*N)'\$!M(&)Q(!<u>(-Q(,J!)B,-C=,J</u>/!,*.=!*''-QBL=B.'!<u>L*J</u>!N=!*PP=K.=0!*.!.(=!-B'.#)P.&#Y'!0-'P#=.-&B!R-.(! $\begin{array}{l} \texttt{K\#\&0-0=!*!\$\#*L=R\&\#C!\$\&\#!') \texttt{K}=\#0-'-\&\$\ 7.)0=\texttt{B}.'!\texttt{R}-, \texttt{!}\texttt{B}==0!.\&!\texttt{N}\#-\texttt{B}\texttt{Q}!.(=!\texttt{P\&LK},=.=0!0-0=\&!\\ \texttt{'}=,\texttt{S}\texttt{6}\texttt{P}\#-.U)=!\texttt{S}\&\#L!.\&!-\texttt{B}0-0-0)*,\texttt{!'} \texttt{K}=\#0-'-\&\texttt{B}!=*\texttt{P}(!\texttt{R}==\texttt{C}\$)\&\\ \textbf{BCD})\texttt{E}\&/0\%26\$04!''\%40!6\$4\%36!0A6!9<<2!\texttt{F}\%1:\#0;!<?!0A6!36><32\#\$94\$!*<<3!\texttt{F}\%1:\#0;!\\ \texttt{3}6><32\#\$94!><\%:2!A\#\$263!40\%26\$064!1=\#:\#0;!0<!36>6\#\texttt{H}6!126\texttt{F}\%106!4\%563\texttt{H}\#4\#<\$!1!0A636?<36J!\\ \texttt{0}<!53<93644\texttt{N}\&\& \end{array}$

- Å



TB.=#B=.!*'!J&)!O&!-B!P,*''\$!<==,!\$#==!.&!O-'*Q#==!R-.(!*BJ!-O=*'!=fK#=''=O/!N).!R&#C!.&!C==K!.(=! O-'P)''-&B'!K&,-.=!*BO!\$&P)'=O!&B!P&)#'=!-O=*'\$!

Q35L''53*3''/)#&PXL\$4*)*3''/5&)/G&6\$15''/)#&6\$1'''1.)/4\$K&

$$\begin{split} \mathsf{M}(=!5\,\&,=\mathsf{Q}=!\&S!+\mathsf{O})\mathsf{P}^*.-\&B!*B0!]) \mathsf{L}^*B!7=\#\mathsf{O}-\mathsf{P}^*!*K\#\&*\mathsf{P}(='!.(=!P\&B'.\#)\mathsf{P}.!\&S!K\#\&S=''-\&B*,!O-'K\&'-.-\&B'!*''!\\ \mathsf{Z}(*\mathsf{N}-.'!\&S!\mathsf{L}-BO[!.(*.!\#=BO=\#!K\#\&S=''-\&B*,!P\&BO)\mathsf{P}.!\mathsf{L}\&\#=!\mathsf{P}^*K*\mathsf{N},=!*BO!-B.=,,-Q=B.\$!''-'K\&'-.-\&B'!*#=/!\\ .(=\#=S\&\#=/!B\&.!*!'.*.=!\&S!K\&''=''-\&B'!\mathsf{N}).!#*.(=\#!*!'.*.=!\&S!K=\#S\&\#\mathsf{L}*B\mathsf{P}=\$!TB!*OO-.-\&B!.\&!*''=''-BQ!CB\&\mathsf{R},=OQ=!\\ *BO!\mathsf{P},-B-\mathsf{P}^*,!K=\#S\&\#\mathsf{L}*B\mathsf{P}=!\&S!P\&)\mathsf{B}'=,-BQ!'.)O=B.'!*.!&\&\#.(=\#B!k=B.)\mathsf{PCJ}!\mathsf{h}B-O=\#'-.J/!.(=!P\&)\mathsf{B}'=,\&\#!\\ =O)\mathsf{P}^*.-\&B!K\#\&Q\#*\mathsf{L}!-'!*,'\&!\#='K\&B'-\mathsf{N},=!S\&\#!K\#\&\mathsf{L}\&.-BQ!*BO!*'=''-BQ!K\#\&S=''-\&B*,!O-'K\&'-.-\&B'\$!\mathsf{M}(-'!P\&)\#'=/!\\ *'!\mathsf{R}-.(!*,,!\&.(=\#!P\&)\mathsf{B}'=,-BQ!P\&)\#'='/!\mathsf{R}-,,!')\mathsf{K}K\&\#.'!)\mathsf{P}(!(*\mathsf{N}-.'!\&S!\mathsf{L}-BO\$!2'!\mathsf{R}=,,/!'.)O=B.'!\mathsf{R}-,,!N=!*''=''=O!\\ \&B!.(=!S\&,,\&\mathsf{R}-\mathsf{BQ}!-.\&5\#))+\&(/*\$-\#.5\&.1/(\%\#S2+)-\&)+0+\&()_!D*\mathsf{H}!\&\mathsf{K}=\mathsf{B}=''!.\&!\mathsf{B}=\mathsf{R}!-O=*'/!D\mathsf{H}!\mathsf{N},=\mathsf{I}-\mathsf{N}-,-J!DP\mathsf{H}!\\ \mathsf{P}\&KK=\#*.-O=B=''!\mathsf{R}-.(!\&.(=\#'/!DOH!\mathsf{R}-,,-BQB=''!.\&!*PP=K.!*BO!)'=!S==ON*\mathsf{PC}/!D=\mathsf{H}!*\mathsf{N},-,-J!.\&!Q-O=!S==ON*\mathsf{PC}!\\ \mathsf{P}\&\mathsf{B}',\#)\mathsf{P}-\mathsf{O}=,\mathsf{J}/!D\mathsf{H}!*\mathsf{R}^*\#=\mathsf{B}=''!\&\mathsf{S}!\mathsf{R}=\mathsf{H}:\mathsf{L}*\mathsf{P}:\mathsf{R}B!\&.(=\#'/!DQ\mathsf{H}!*\mathsf{N}-,-J!.\&!O=*,!\mathsf{R}-.(!P\&BS,-\mathsf{P}./!D(\mathsf{H}!*\mathsf{N}-,-J!.\&!*PP=K.!\\ \mathsf{K}=\#'\&B*,!\#='K\&B'-\mathsf{N},-,-.J/!D-\mathsf{H}!*\mathsf{N}-,-.J!.\&!=\mathsf{K}\#=''!S==,-BQ'!=SS=\mathsf{P}-O=,\mathsf{J}!*BO!*KK\#\&K\#-*,=,J/!D>\mathsf{H}!*.=B-&\mathsf{B}!\&!=.(-P*,!*BO!,=Q*,!P*)$$

61'''\$553''/)#**P***+**345***k*)/**G*****61'''\$553''/**)#3**5**. K!M(=!5&)B'=,&#!+0)P*.-&B!K#&Q#*L!')N'P#-N='!.&!.(=!2 L=#-P*B! 5&)B'=,-BQ!2''&P-*.-&B!D252H!5&O=!&S!+.(-P'!*BO-1(!)-1(D)-1(OH)-!&''-1(!)TJE.24P-*P&OTJE.24E.24Q46ET79-1(&B! $\label{eq:solution} \begin{array}{l} *0(=\#=!\&!(=!(-Q(='.!0=Q\#==!\&S!=.(-P*,!-B.=Q\#-.J!-B!*P*0=L-P!P\&BO)P.\$!T.!-'!*!P\&LL-.L=B.!-B0-O-O)*, J!*B0!\\ P\&,=P.-0=,J!.(*.!.(=!'.)0=B.'!\&S! & \&\#.(=\#B!k=B.)PCJ!hB-0=\#'-.J!R-,,!B\&.!,-=/!P(=*./!\&\#!K,*Q-*\#-V=!.\&!Q*-B!*B!\\ *P*0=L-P!*00*B.*Q=!&0=\#!S=,,&R!'.)0=B.'!\&\#!*0&-0!*P*0=L-P!\#=U)-\#=L=B.'\$! \end{array}$

!

M(=!K)#K&'=!&S!.(=!]&B&#!5&O=!-'!.&!='.*N,-'(!'.*BO*#O'!&S!*P*O=L-P!P&BO)P.!S&#!'.)O=B.'!*.!8&#.(=#B! k=B.)PCJ!hB-O=#'-.J!*BO!.&!K#&O-O=!*!K#&P=O)#=!.(*.!&SS=#'!N*'-P!*'')#*BP='!&S!S)BO*L=B.*,!S*-#B=''!.&!



! '' - / 5\$#3 / %&OZ3##5&PXL\$4*) *3'' / 5K&&

 $\begin{array}{l} 4\#*P.-P) L!'. 0=B. '!*\#=!=fK=P.=0!.\&!0=L\&B'.\#*.=!P\&LK=.=BPJ!-B!'=0=\#*,!'C-,,!*\#=*'!-BP, 0-BQ_!)'=!\&S!\&K=B!\\ *B0!P,\&'=0!U)='.-\&B'/!K*\#*K(\#*'-BQ/!\#S,=P.-BQ!S==,-BQ/!') LL*#-V-BQ/!=LK*.(J/!P&BS#&B.*.-&B/!'-,=BP=/!\\ \#=S,=P.-&B!\&S!L=*B-BQ/!*B0!Q&*,!'=..-BQ$!TB!*00-.-&B/!'. 0=B.'!*#=!=fK=P.=0!.&!') PP=''S),,J!K#='=B.!#=P&\#0=0!\\ '=''-&B'!R(-P(!0=L\&B'.\#*.=!.(=!P\&)B'=,&\#Y'!*N-,-.J!.&!).-,-V=!.(=!,-'.=0!'C-,,'!-B!*!!&"#',#(0$/(2$+(0#(0+&(/*$5/)''+&($!7.)0=B.'!L)'.'!*,'&!=f(-N-.!.(=!*N-,-.J!.&!)'.+)"+!*!P&)B'=,-BQ!'=''-&B!S#&L!N=Q-BB-BQ!.&!=B0/!\\ -BP, 0-BQ!&N.*-B-BQ!B=P=''*#J!-BS&#L*.-&B!R(-,=!C==K-BQ!K=#'&B*,!*Q=B0*'/!0*,)='/!*B0!-'')='!&).!&S!\\ P\&)B'=,-BQ!'=''-&B'$!N/)T3#3*H&*''&4''/*33*$*/*#H&G$.''/5*1)*$&4''-/5$#3/%&5Z3##5&.)H&1$*5-#*&3/&')3#-1$&'''&*+$&4''-15$H&3/)T3#3*H&*''&N/*$1/5+3L&!?$

 $\frac{! 1 \$ G 3^{*} \& ("-1 \& 6" # 34 H \& 0^{*}) * \$. \$ / * !}{TB !* PP \& #0^{*}BP = !R - . (! \$ - P J /! 8 \& h ! 0 = \$ - B = '! * !P #= 0 - .! (\&) # !* '! . (=! * L \&) B .! \& \$! R \& #C ! #= K #= '= B .= 0! - B! . (=! * L \&) B .! \& S! R \& #C ! #= K #= '= B .= 0! - B! . (=! * L \&) B .! \& S! R \& #C ! #= K #= '= B .= 0! - B! . (=! * L \&) B .! \& S! R \& R &= C != B .= 0! - B! . (=! * L \&) B .! \& S! R \& R = C != B .= 0! - B . (=! * L \&) B .! \& S! R \& R = C != B .= 0! - B . (=! * L \&) B .! \& S! R \& R = C .= 0! = B .= 0! - B . (=! * L \&) B .! \& S! R \& R = C .= 0! = B . (=! * L \&) B .! \& S! R \& R = C .= 0! = B .= 0! = B . (=! * L \&) B .! \& S! R \& R = C .= 0! = B .= 0! = B .= 0! = B . (=! * L \&) B .! \& S! R \& R = C .= 0! = B .= 0! = B . (=! * L \&) B .! \& S! R \& R = C .= 0! = B . (=! * L \&) B .! \& S! R \& R = C .= 0! = B . (=! * L \&) B .! \& S! R \& R = C .= 0! = C .= 0!$ *P(-=O=L=B.!&S!'.)O=B.!,=*#B-BQ!&).P&L='!DO=#-S-=O!NJ!=O-O=BP=!&S!'.)O=B.!*P(-=O=L=B.H!.(*.!#=*'&B*N,J!

 $TB!*00-.-\&B/!J\&)!'(\&),0!N=!*R*#=!\&S_!$

- +0*,)*.-&B'!P*B!*\$\$=P.!P(*BQ='!-B!P&)#'='\$!+O*,)*.-&B'!R-.(&).!P&LL=B.'!*#=!,=''!O*,)*N,=!*BO! ,=''!P#=0-N,=!.(*B!.(&'=!\$-,,=0!&).!.(&)Q(.\$),,J\$!5&LL=B.'!.(*.!*#=!=fK#=''=0!R=,,!*#=!L&#=! =\$\$=P.-O=!.(*B!.(&'=!.(*.!*#=!B&.\$!
- 4&'-.-O=!S==ON*PC!-'!>)'.!*'!-LK&#.*B.!*'!P#-.-P-'L\$!1 &#=&O=#/!B=Q*.-O=!=O*,)*.-&B'!R-.(&).!*BJ! =fK,*B*.-&B!*BO!'K=P-S-P'!*#=!B&.!='K=P-*,,J!)'=S),\$!
- ٠