## 

WVI\!!	!	G, *, ')(#'7!H, 4)1)(,F!S/'\$)(5!#(4!:00), 4!A, #0*+F!3/\$B,5,, !C()6, '\$)*7! A&(&'#'7!:1+),6,9,(*!: "#'4F!:9,')1#(!G,*,')(#'7!;.)4,9)&0&57!
WVIW! !	!	E&1),*7! Q,1*/','F!3/\$B,5,,!E#2,!A#6,(!E/99,'!;(')1+9,(*!M'&5'#9F!3/\$B,5,,! C()6,'\$)*7!
WVII! ! IJJO!X!WVVI!	! !	8 '0!'30E0! P )00)#9\$!Q,1*/','!: "#'4F!3/\$B,5,,!C()6,'\$)*7! Q,1*/','!YG,*,')

 $\begin{aligned} 3/\$B,5,,!C()6,'\$)*7F!#(4!"+\&!+\#\$!*+,!\&6,'\#0!',\$.\&(\$)\%)0)*7!2\&'!,<,1/*)(5!*+,!\$'#*,57!#(4!.'&5'#9!\\ \&2!*+,!=\&00,5,!&2!G,*,')(\#'7!H,4)1)(,@!!A,!+\#\$!6\#\$'!,<.,'),(1,!)(!./\%)1!+,#0*+!")*+!4,.*+!)(!\\ 6,*,')(\#'7!./\%)1!+,#0*+!#(4!*+,!&(,^++\#0*+!!\&(1,.*a!,.)4,9)\&0\&57!#(4!2\&\&4!\$2,*7a!\$B)00\$!)(!.'&.\&\$#0!\\ "')*)(5a!#(4!9\&\%)0)^*#)&(!&2!2)(#(1)#0!#(4!+/9#(!',$&/'1,$!"+)1+!+,!/$,$!*&!1&(*')%/*,!*&!*+,!\\ #46#(1,9,(*!&2!*+,!(,"!5'#4/#*,!.'&5'#9!#*!*+,!=GHS:A@!3+'&/5+!+)$!0,#4,'$+).F!+,!.'&9&*,$!! \\ \end{aligned}$ 

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 $\begin{array}{c} A, !4, 2)(, 4!\#(4!, 6\#0/\#^*, 4!0, 5)\$0\#*)6, !\#(4!\#49)()\$^*'\#*)6, !. \&0)1), \$!)(!^*+, !\\ 2), 04!\&2!G, *, ')(\#'7!M/\%0)1!A, \#0^*+!2\&'!^*+, !H)()\$^*'7!\&2!A, \#0^*+\emptyset!A, !1\&00\#\%\&'\#^*, 4! ")^*+!^*+, !H)()\$^*'7!\&2!\\ :5')1/0^*/', !YG, *, ')(\#'7!E, '6)1, \$!8)6)\$)\&(Z!)(!^*+, !4, 6, 0\&. 9, (*!\&2!\\ !\#(4!)(!\$^*', \#90)()()5!^*+, !\end{array}$ 

- $\begin{bmatrix} \emptyset & \mathbf{M}: \mathbf{I} \mathbf{I} \mathbf{F} ! * \mathsf{T} \& \mathsf{T} \mathbf{M} \mathsf{T} \mathsf{D} \mathsf{H} \mathsf{Y} \mathsf{W} \mathsf{V} \mathsf{J} \mathsf{Z} \vartheta : !!! , . \&' * ! \& (!*+, !: \$\$, \$\$ 9, (*! \& 2!*+, !G, *, ')(\#'7!S, ., 4\$!)(!*+, !; (50)\$+^{} \$, ., \#B)(5! = \#')\%, \#(\vartheta! \mathsf{M}', \$, (*, 4! \#*! *+, !O'''! \mathsf{E}^*, .)(5! = \& 9 9)^{**}, .! \& (! = \#')\%G; 3! \mathsf{H}, .*)(5F! 3', 0\#'' (7F!N\#9\#)1\#! \mathsf{H} \#'1+! \mathsf{I} \mathsf{U} \mathsf{F} ! \mathsf{W} \mathsf{V} \mathsf{V} \mathsf{J} \vartheta!$
- U@ **M:II**F!\*T&T**M**TD+YWVVJZ@!!!M'&.&\$,4!=:->=\_H!R/)4,0)(,\$!2&'!M&'\*!A,#0\*+!E/'6,)00#(1,! E7\$\*,9\$@M',\$,(\*,4\#\*\\*+,!S)(\*+!H,,\*)(5\&2!=:->=\_H!=+),2\G,\*,')(#'7!\_22)1,'\$F!3',0#" (7F! N#9#)1#@!H#'1+!IK^ILF!WVVJ@!
- K@ **M:II**F! \*T&T**M**TD+YWVVLZ0!!! #%),\$!; '#4)1#\*)&(j!:!+,9)\$.+,')1!H)\$\$)&(@!M',\$,(\*,4!#\*!\*+,! H,')#0!-#%),\$!E79.&\$)/9F!3/\$B,5,,F!:0#%#9#0!\_1\*&%,'!ILF!WVVL0!
- L0 **M:IIF**!\*T&TMTD+YWVVLZ0!!! ,5/0#')<sup>\*</sup>#\*)&(!&2!\*+,!G,\*,')(#'7!M/%0)1!A,#0\*+!M'&5'#9!)(!\*+,! =#')%%,#(0!M',\$,(\*,4!#\*!\*+,!E,6,(\*+!H,,\*)(5!&2!=: ->=\_H!=+),2!G,\*,')(#'7!\_22)1,'\$F!E\*0! N&+(1\$F!: (\*)5/#!#(4!D#'%/4#0!:.')0!I^OF!WVVL0!
- $\begin{aligned} \mathbf{M}: \mathbf{I} \mathbf{I} \mathbf{D} + ^{\mathbf{T}} \mathbf{\&}^{\mathbf{T}} \mathbf{M} \mathbf{D} + ^{\mathbf{T}} \mathbf{W} \mathbf{V} \mathbf{U} \mathbf{Z}^{\mathbf{H}} \mathbf{C} (4, '$^{\mathbf{H}} (4) (5!^{\mathbf{H}} +, !S, '' | \mathbf{H}^{\mathbf{H}} (4\#^{\mathbf{H}}, \$\# (4!M') \&')^{\mathbf{H}}), \$! 2\&' !^{\mathbf{H}} +, !-, \$' / 1*/', 4! \\ \_ 22)1, ! \& 2! = \#') \%, \# (! M' \& 5' \# 9! = \& \&'4) (\#^{\mathbf{H}} \& (! YM \# (! : 9, ')1 \# (! A, \#0^{\mathbf{H}} +! \_'5 \# ()^{\mathbf{H}}) \& (\mathbf{Z}\mathbf{j}! : ! \\ \mathbf{G}, \ast, ') (\#'7! \mathbf{M}/\%) 1! \mathbf{A}, \#0^{\mathbf{H}} +! \mathbf{M}, `\$., 1^{\mathbf{H}}) \mathbf{6}, \emptyset! \mathbf{M}', \$, (\ast, 4! \#^{\mathbf{H}} +, !> (\ast, '(\#) \& (\#0! \mathbf{E}, \$) \& (! \& 2!^{\mathbf{H}} +, !O \setminus ^{\$}! \\ : ((/\#0! \mathbf{G}, \ast, ')(\#'7! \mathbf{H}, 4)1 \# 0! \mathbf{E}79 . \& )/9 \mathbf{F}! = \& 00, 5, ! \& 2! \mathbf{G}, \ast, ')(\#'7! \mathbf{H}, 4)1)(, \mathbf{F}! \mathbf{S} / '\$) (5! \# (4! \\ : 00), 4! \mathbf{A}, \#0^{\mathbf{H}} + \mathbf{F}! 3 / \$B, 5, , !C ()\mathbf{6}, `\$)^{\mathbf{T}} \mathbf{F}! 3 / \$B, 5, \mathbf{F}! : 0\# \% \# 9 \# 0! \mathbf{H} \#'1 +! W [^{\mathbf{W}} \mathbf{V} \mathbf{V} \mathbf{U}! \end{aligned}$
- IV0 **M:II**D+\*T&T**M**TD+YWVVLZ+H)1'&%)#0!\*+',#\*\$!\*&!\*+,!E#2,\*7!&2!?&&4!M'&4/1\*\$!)(!3'#4,!%,\*",,(! \*+,!Q#\*)(!:9,')1#^=#')%%,#(!',5)&(F!\*+,!CE:!#(4!&\*+,'!1&/(\*'),\$0!M',\$,(\*,4!#\*!\*+,! =#')%%,#(!?&&4!='&.\$!E&1),\*7]P,\$\*!>(4),\$!:5')1/0\*/'#0!;1&(&9)1\$!Y=?=E]=:;EZ! =&(2,',(1,0!H)#9)!D,#1+F!?0&')4#0!N/07!I\^IKF!WVVL0!
- II0 **M:II**F!\*T&TMTD+YWVVLZ0!!3+,!=#')%%,#(!:>!-,\$.&(\$,!M0#(j!:!6,\*,')(#'7!M/%0)1!A,#0\*+! M,'\$.,1\*)6,0!M',\$,(\*,4!#\*!\*+,!P&'B\$+&.!&(!H#(#5)(5!:6)#(!>(20/,(`#!=+#00,(5,\$!)(!\*+,! =#')%%,#(!Q)6,!D)'4!H#'B,\*!E7\$\*,9F!M&'\*!&2!E.#)(F!3')()4#4!#(4!3&%#5&0!N#(/#'7!J^IF! WVVL0!
- I \0 **M:II** !\*T&TMD+- )\$B!: (#07\$)\$!H, \*+&4&0&57!)(!\*+

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I [0] ; `, &B&0)F!=080!M'&20!F!#(4!\*T&TMT+M:IIF!YIJJJZ0!!-&0, &2!\*+, &E1+&&0!&2!G, \*, ')(#'7!H, 4)1)(, !)

\$ E3?/-&26<, )\$94?, ''6A!

- We  $?\&'\$*, 'F!; 0)^{\#\%}, *+F!#(4!*68B; +&T+MT+M:IIF!YWVIOZ0!G, *, ')(#'7!E*/4, (*$i!:**)*/4, $!3&" #'4$! *+, !- &0, !&2!M/%0)1!A, #0*+!)(!G, *, ')(#'7!H, 4)1)(, 0!$
- \@ R'#(\*F! 8,d/#(#F!#(4!\*68B;+&TMT+M:IIF!YWVIOZ@!3+,!\_11/'',(1,!&2!D',#\$\*!=#(1,'!)(!
  :2')1#(!:9,')1#(!#(4!=#/1#\$)#(!P&9,(!)(!\*+,!CE:@!
  !
- $0! \qquad \mathbf{M.!!} + ^{T} & T\mathbf{MT}! : S 8 != ! : ! ACQQF! YIJJJZ !! 3+, ! : . . 0)1 # * ) \& (! \& 2! # ! A # ` # ' 4! : (#07$) $! = ') * ) 1 # 0! \\ = \& (*' \& 0! M \&) (*! YA := = MZ! M' \& 5' # 9 !* \& ! * " \& ! ? # $*! ? \& \& 4! / * 0, * $!) (! 3') () 4 # 4! # (4! 3 \& \% # 5 \& ! ]$
- $\begin{bmatrix} 0 & \mathbf{M} \cdot \mathbf{!} \cdot \mathbf{P} * \mathbf{T} \mathbf{A}^{T} \mathbf{M}^{TF!} 0 \end{bmatrix} : SH_QE > SRAF!_0F!D; RRF! H 0F!? :E; -F! H 0F!_iS; :QF!; 0M; -E: 8F! 0! :H = A : S8; -F! M 0! E = A > S8; !: S8! T 0! G > QQ: -_; QF! YIJJJJZ 0!! 3 & /') $*$i! 1 & (1, '($! ',5#'4)(5!? & 4!E#2, *7!)(!3')() 4#4! # (4!3 & #5 & 0! \end{bmatrix}$
- U0 **M.!!** h \* T & T M T F! : S 8! : 0 : 0! : 8 ; E > h C S F! YIJJOZ 0! ! 3+, ! &0, ! &2! \*+, ! G, \*, ')(#')#(!)(! ; (6)' & (9, (\*#0!A, #0\*+!H#(#5, 9, (\*0!!))))
- K0 **M.!!** D+\*T+&TMTF!: S 8!: 0: 0!: 8; E>h C SF!YI J JOZ0!!3+, !>(\*)\*/\*)&(#0)`#\*)&(!&2!G,\*,')(#'7! M/%0)1!A, #0\*+!)(!\*+,!; (50)\$+^\$.,#B)(5!=#')%%,#(0!

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## ) 8QCNQANQF+.; AZHCN8Q5 / <HNQNQF2+

- I M#'\*1.  $\#(*!\#*!*+, !G, *, ')(\#'7!E79. \&)/9!\&(!C()2\&'9, 4!G, *, ')(\#'7!H, 4)1)(, j!_%$, '6)(5!IVV! h, #'$! & 2! E, '6)1, ! & 2! *+, !C@E@!: '97!G, *, ')(#'7!=&'. $@!3/$B,5,, !C()6, '$)*7F!3/$B,5, F!: 0#%#9#@!H#'1+!WW^W[F!WVIK@!$
- W@ M#'\*)1).#(\*!#\*!\*+,!!
- $\begin{array}{ll} \mbox{$M\#'*$}(1).\#(*!\#*!*+,!S\#)\&(\#0!M\#'*(,'$+).!2\&'!:1*)\&(!?\&'/9j!-,4/1)(5!A,\#0*+!8)\&.\#')*),\$!\%7!\\ \mbox{$M'\&9\&*$}(5!A,\#0*+!;b/)*7!)(!:0\#\%\#9\#F!\_22)1,!\&2!H)(\&')*7!A,\#0*+F!=0\#(*\&(F!:0\#\%\#9\#1EE,.*,9\%,'!WJF!WVII0!) \\ \mbox{$E,.*,9\%,'!WJF!WVII0!} \end{array}$ 
  - !
- O@ RG>FIDIWGEF,GF,FJ@,&=O5>@VIBEGL,6>GIEIEV, 7 B>KMJBW,BE,%H@>V@EDA,2@MWBEM@,=EQ@>,FJ@,)&\$#[#R4'&,

- K@ M#'\*)1).#(\*!#\*!\*+,!>(\*,'(#\*)&(#0!A,#0\*+!-,5/0#\*)&(\$!YWVV[Z!>9.0,9,(\*#\*)&(!E/%^',5)&(#0! H,,\*)(5F!\_\*\*#''#F!=#(#4#0!\_1\*&%,'!IK^IJF!WVVK!
- !
- L0 M#'\*1). #(\*!#\*!\*+, !=#(#4#^M: A\_!G, \*, ')(#'7!M/%0)1!A, #0\*+! P &'B\$+&.F!\_\*\*#'' #F!=#(#4#0!H#7! V!X!N/(,!WF!WVVK!)
- !
- J0 M#'\*)1).#(\*!#\*!\*+, ! P &'B\$+&.!&(!D#\$)1!Q#%&'#\*&'7!3,1+()b/,\$!2&'!A)5+07!M#\*+&5,()1!:6)#(! >(20/,(`#F!Q#6,1,(F!8&9)()1#(!-,./%0)10!N/(,!IV^IUF!WVVK0!
- !

IV0 M#'\*)1).#(\*!#\*!\*+,!P&'B\$+&.!2&'!=#')%%,#(!S,\*"&'B!&2!;9,'5,(17!-,\$.&(\$,!3,#9!Q,#4,'\$F!

## H,4)1)(,F!H)\$\$)\$\$)..)!E\*#\*,!C()6,'\$)\*7F!C@E@:@F!N/07!I!^!UF!IJJU@!

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$$\begin{split} & \texttt{WI} \texttt{0} : \texttt{**} \texttt{\#1+9}, (\texttt{*!} \texttt{\#*!} \texttt{*+}, \texttt{!D}) \texttt{\&9}, \texttt{4}) \texttt{1} \texttt{\#0} \texttt{!>} (\texttt{2}\texttt{\&'} \texttt{9} \texttt{\#*}) \texttt{\&} (\texttt{!} \texttt{H} \texttt{\#}(\texttt{\#5}, \texttt{9}, \texttt{(*!} \texttt{E7}\texttt{\$}, \texttt{9} \texttt{!} \texttt{8}, \texttt{.} \texttt{\#'*9}, (\texttt{*F!} \texttt{E1} \texttt{+} \texttt{\&0} \texttt{!} \texttt{\&2} \texttt{!} \\ & \texttt{G}, \texttt{*}, \texttt{'}) (\texttt{\#'7!} \texttt{H}, \texttt{4}) \texttt{1}) (\texttt{,F!} \texttt{3} / \texttt{\$B}, \texttt{5}, \texttt{,!} \texttt{C} (\texttt{)6}, \texttt{'}) \texttt{*7F!} : \texttt{0} \texttt{\#} \texttt{\#} \texttt{9} \texttt{\#F!} \texttt{CE} : \texttt{F!N} / (\texttt{,!} \texttt{W} \texttt{!} \texttt{VF!} \texttt{IJJU} \texttt{0} \texttt{!} \end{split}$$

WW@ M#'\*)1).#(\*]=&^

- L0  $\begin{array}{l} ! \\ H ; HD ; -F!3')()4\#4!\#(4!3\&\%\#5\&!G,*,')(\#'7!H,4)1\#0!:\$\&1)\#*)\&(!YIJKL!X!.',\$,(*Z!) \\ ! \end{array}$
- $J\emptyset$

- !
- $\begin{array}{ll} J \emptyset & M: A_] P A_! G, *, ')(\#'7!M/\%0)1!A, \#0*+!: 46) \& '!)(!?\&\&4!M'\&*, 1^*)\&(!\#(4!A\#^*\#'4!:(\#07\$)\$!) \\ & =')*)1\#0! = \&(*'\&0!M\&)(*\$! P\&'B\$+\&.!)(!E*\emptyset!T)**\$]S, 6) \$!N/07F!IJJ[\emptyset! \\ \end{array}$
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- IV0 M: A\_] PA\_!=&(\*'#1\*&'!#\*!\*+,!?)'\$\*!3'#)()(5!=&/'\$,!)(!H,#\*!#(4!M&/0\*'7>(\$.,1\*)&(!2&'!\*+,! =#')%%,#(F!T)(5\$\*&(F!N#9#)1#F!N/07!^!:/5/\$\*F!IJJ[0!
- $II \emptyset M: A_] P A_!G, *, ')(\#'7!M/\%0)1!A, \#0*+!: 46) \&'!)(!?\&\&4!M'\&*, 1^*)\&(!\#(4!A\#^*\#'4!:(\#07\$)\$!) = ')*)1\#0!=\&(*'\&0!.\&)(*\$! P\&'B\$+\&.!)(!E*\emptyset!G)(1, (*!\#(4!*+,!R',(\#4)(,\$F!N/07F!IJJ[\emptyset!)))))$
- !
- $$\begin{split} \text{IW} & \text{M}: \text{A}_{]} \text{P} \text{A}_{!} \text{G}_{*}, ')(\#'7!\text{M}/\%0)1!\text{A}_{}\#0^{*}+!:46)\&\&'!)(!?\&\&4!\text{M}'\&^{*},1^{*})\&(!\#(4!\text{A}\#^{*}\#'4!:(\#07\$)\$!\\ &=')^{*})1\#0!=\&(*'\&0!\text{M}\&)(*\$! \text{P}\&'B\$+\&.!)(!E^{*}!T)^{**}\$]\text{S}_{},6)\$!\text{N}/07\text{F}!\text{IJJ}[0! \end{split}$$
- !
- $I \setminus \emptyset \qquad M: A_] P A_! = \& (*'\#1^*\&'!2\&'!^*+, !M', .\#'\#^*) \& (!\&2!\#!8'\#2^*!H\#(/\#0!\&(!$

We =+#)'9#(F!=#')%G;3!S,\*"&'B!

- $\begin{array}{ll} \mathbb{W} & \mathbb{M}\#^{*}(1) \cdot \#^{*} + \frac{1}{2} \left[ \frac{1}{2} \mathbb{W} \right]^{*} \mathbb{M} : \mathbb{A}_{2} = \mathbb{H}^{1} = \mathbb{H}^{$
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- $\begin{bmatrix} \emptyset & M', \$, (*, '! \#*! *+, ! S \#*) \& (\#0! P \&'B\$+\&.! \& (! ?\&\&4! M'\&*, 1*) \& (F! A\#^* \#'4! : (\#07\$) \$! \#(4! = ')*) 1 \#0! \\ &= \& (*'\&0!M_> S 3E!YA : == MZF!E^{*0!}T)^{**\$!} \#(4!S, 6) \$F!N/07!II^{I}JJ[\emptyset!$
- !
- $\begin{array}{ll} U & -, ., ', \$, (*\#)6, !\&2!*+, !?\#1/0*7!\&2!H, 4)1\#0!E1), (1, \$F!*+, !C()6, '\$)*7!\&2!*+, !P, \$*!>(4), \$F!\#*!*+, !\\ ?)'\$*!E., 1)\#0!H, ,*)(5!\&2!*+, !-, 5)\&(\#0!M'\&5'\#9, 9, !2\&'!: ()9\#0!A, \#0*+!:\$\$)\$*\#(*\$!Y-; M:A:Z!: :46)\&'7!D\&\#'4F!R, \&'5, *\&''(F!R/7\#(\#F!H\#7F!IJJI[0!)) \end{array}$
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