!""#\$%&'(\$)\$*+,-\$./'012+&3'\$

*+&/3/4,4\$5646'\$7,/8'93/6(\$
: 46+,\$;+&-'\$*=\$>?@?#\$

A!!BCB>@D#BEF\$A+GG/H'C\$

ID J 4/0\\$4L',3+,M03&\1&\$

```
O+H6+9$+6$) 2/0+3+P2($%&J4,$) '96+9J4,H'$IJP243/3$/,$=1J/,/36946/+,$4,1$Q'4H2/,-$=&-&36$!??#$
```

R436'9\$+6\$5H', H'\$/,\$)2(3/H40\$I1&H46/+,\$IJP243/3\$/,\$5P+96\$=1J/,/36946/+,\$=&-&36\$!??"\$

: 4H2'0+9\$+G\$5H/', H'\$/,\$IS'9H/3'\$5H/', H'\$ R4(\$!???\$

```
= \& - \&36\!?!!DP9'3',6\$
```

)9+G'33+9\$+G\$)9+G'33/+,40\$)94H6/H'\$A!?"@DP9'3',6C\$

)9+G'33/+,40\$=GG/0/46'\$R'JL'9\$T941&46'\$.4H&06(\$

U8'93''+P'946/+,3\$+6\$62'\$V==QI\$4HH9'1/6'1\$=620'6/H\$Q94/,/,-\$)9+-94J\$

U8'93''\$H0/,/H40\$9+646/+,3\$4,1\$3&P'98/3/+,\$+6\$36&1',63\$',9+00'1\$/,\$62'\$V = = QI\$H&99/H&0&J\$

U8'93''\$W\$H+JP/0'\$62'\$4,,&40\$9'P+96\$

V+JP/0'\$1464\$G+9\$P9+-94J\$+&6H+J'3\$4,1\$433'33J',6\$G+9\$5UX\$W\$*57\$

5'98/60':0T+6/76B#(5'98/60':0T+6/76B(6D14Tf())TjE.(5'98/6098/6092,S+,\$+Td./,.,389/MC.H&EMC/W&E

```
=33/36\%, $\$+8'93''/, -\$+P'946/+, 3\$+6\$62'\$V == Q I \$4HH9' 1/6' 1\$=620'6/H\$Q94/, /, -\$) 9+-94 J \$
U8'93''\$H0/./H40\$9+646/+.3\$4.1\$3\&P'98/3/+.\$+6\$36\&1'.63\$'.9+00'1\$/.\$62'\$V = = OI\$
H&99/H&0& J $
=33/36$Z/62$1'8'0+PJ',6$+G$62'$H&99/H&0&J$
5'98'\$+,\$1'P496J',6\$H+JJ/66''3\$
=33/36\%, $62'$'840&46/+, $W$694/, -$+6$P9'H'P6+93$46$849/+&3$H0/, /H40$3/6'3$
                          = \& - \&36\$! ??@D!?"E\$
  . \&00\$) 9+G'33+9\$A'GG'H6/8'\$=\&-\&36\$!?"#C\$Z/62/,\$V==QI\$4HH9'1/6'1\$=620'6/H\$Q94/,/,-\$
 I 1\&H46/+, \$)9+-94 J \$
 =33+H/46'$)9+G'33+9$A=&-&36$!??FD[&0($!?"#C$
 U8'93''$14/0($+P'946/+.$+6$62'$V == OI$4HH9'1/6'1$=620'6/H$094/./.-$I1&H46/+.$
 364,14913\$4GG/0/46'1\$3/6'\$4-9''J',63\$+8'93''\$36&1',6\$H0/,/H40\$9+646/+,3\$36&1',6\$
 1/3H/P0/, '$G4&06($H+,694H63$G4H&06($H'96/G/H46/+,3$H+&93'$3H2'1&0/,-$4,1$G4H&06(\364GG$
  '840&46/+,3$
       \circ 19+6'$V = = O I $3'0GD36&1 ($4, 1$7, /8'93/6($9'H'/8'1$"?$('49$9'466/9 J 46/+,$
           840/1\(\)6/0\(\)!?!?D!?!"\(\)
  ; 'P+96$O'P496J',6$/33&'3$4,1$P9+-9'33$1/9'H60($6+$62'$O'4,$+6$V%%5$
 U8'93''$H+,6/,&400($1'8'0+PJ',6$+G$H+&93'3$4,1$H&99/H&0&J$
 Y,3&9'$4PP9+P9/46'$/JP0'J',646/+,$+6$36&1',6$9'H9&/6J',6$$418/3/,-$36&1',6$
 41 J/33/+, $4,, &40$9'P+963$4, 1$3'0GD36&1($
 V++91/,46+9+64&1/+8/3&409'3+89H'34,14+89,403
 =18/3+9\%6+9\%62'$=620'6/H$O94/,/,-$56&1',6$V0&L$
 V++91/,46'\$694/,/,-\$+G\$)9'H'P6+93\$
 5'98'$+,$1'P496J',6\$H+00'-'$4,1\$&,/8'93/6(\$H+JJ/66''3\$
 5&P'98/3'$36&1',6$H4P36+,'$P9+^'H63$4,1$9'3'49H2$
       = \& - \&36\$!??#D[\&0(\$!??@\$)
 =33/364,6$\) 9+6'33+9$\Z/62/\,$\V==\QI\$4\H9'1/6'1\$=620'6/\H\$\Q94/\,\\\-$\I\$\H46/+\,\$\) 9+-94\J\$
 =33/36$P9+-94 J $1/9'H6+9$Z/62$36&1',6$9'H9&/6 J',6$418/3/,-$36&1',6$41 J/33/+,$
 4,,&40$9'P+963$4,1$3'0G$36&1($
 =33/36'1$Z/62$V = = Q I $4HH9'1/646/+, $. 400$!??#$A9'4GG/9 J 46/+,$G+9$>$('493C)$
 V0/,/H40$V++91/,46+9$+8'93''/,-\$36&1',6\9+646/+,3\$3/6'\$8/3/63\$H+,694H63\$4,1\$36&1',6\$
 '840&46/+,3$
 3/6'3\$ J 4/,64/,/, -\$H+,64H6\$Z/62\$3/6'\$3\&P'98/3+93\$4,1\$H+ J P/0/, -\$36\&1',6\$4,1\$3/6'\$
 '840&46/+,3$
 5&P'98/3'$36&1',63$/,$62'$H0/,/H40$3'66/,-$43$4$)9'H'P6+9$
 =/1'\$/,\$'840\&46/,-\$36\&1',63_\$V==QI\$H+JP'6',H/'3\$4,1\$P9+\$6/H/',H/'3\$
 = H41' J/H$= 18/3+9$6+9$7, 1'9-941&46'$=620'6/H$Q94/,/,-$R4^+93$
 V++91/, 46+9$+6$4&1/+$8/3&40$9'3+&9H'3$4, 1$^{^{\circ}}+&9, 403$
 V++91/, 46+9$+6$ ^{46}+, 40$=620'6/48Q94/, ^{93}$R+, 62$=46/8/6/'3$
```

!??"\$

 $Q'4H2/, -\$433/364, 6\$G+9\$H+\&93'3\$/, \$62'\$) \ 2(3/H40\$I1\&H46/+, \$O'P496J', 6\$)$ R'JL'9\$+6\$62'\$=H41'J/H\$; '8/'Z\$V+JJ/66''\$ $= 33/36'1\$Z/62\$62'\$1'8'0+PJ', 6\$4, 1\$/JP0'J', 646/+, \$+6\$4620'6/H\$694/,/, -\$H+JP'6', H/'3\$/ \\ /,\$4\$V==QI\$AG+9J'90(\$V==\%I)C\$4PP9+8'1\$=620'6/H\$Q94/,, -\$)9+-94J\$$ $5'98'1\$43\$62'\$\%'41\$V'96/G/'1\$=620'6/H\$Q94/, '9\$G+9\$R', _3\$4, 1\$]+J', _3\$Q94Hb\$4, 1\$V9+33\$V+\&, 69(\$; '3P+, 3/L0'\$G+9\$62'\$3\&P'98/3/+, \$+6\$36&1', 6\$694/, '93\$849/+&3\$4620'6/H$41J/, /36946/8'\$ \\ 1\&6/'3\$4, 1\$3H2'1&0/, -\$+6\$4620'6/H\$P'93+, ,'0\$/ \\ \%+J'\$4, 1\$4Z4(\$H+8'94-'\$+G\$4\$849/'6(\$+6\$4620'6/H\$'8', 63\$/ \\ ISP'9/', H'$Z/62$`V==$19&-$6'36/, -$$

+8' J L'9\$!???D = &-&36\$!??"\$

=33/36'1\$Z/62\$H+8'94-'\$+6\$R41/3+,\$V',6940\$%/-2\$5H2++0\$4620'6/H\$'8',63\$43\$4\$H'96/6/'1\$4620'6/H\$694/,'9\$4,1\$H++91/,46'1\$P2(3/H/4,\$9'6'99403\$

```
5P9/,-$!?"BDP9'3',6$
       = O; \$!??? I J '9-', H(\$R'1/H40\$; '3P+, 3'\$5P9/, -\$!?"B\$!?!"\$
       =Q; \$!??"\$ . +\&, 146/+, 3\$+6\$) 46/', 6\$V0/, /H40\$=33'33 J', 6\$ . 400\$!?"BD!?"F\$
       =Q; \$!B?B$ U962+P'1/H$Y,^&9($I840&46/+,$Q'H2,/c&'3$Y$5P9/,-$!?"dD!?!?$
       =0; \$!B?>\$ ) 2(3/H40\$O2'94P'\&6/H\$R+140\6/'3\$5P9/, -\$!?"dD!?!?\$
       =0; \$\#!?"\$ =620'6/H\$O94/,/,-\$)94H6/H&J\$Ya\$5P9/,-\$!?!"\$
       =Q; \$#B?B$ U962+P'1/H$Y,^&9($I840&46/+,$Q'H2,/c&'3$YY\$.400$!?"dD!?!?$
       =Q; \$E!??\$ = 620'6/H\$Q94/,/,-\$)94H6/H&J\$a\$.400\$!?!?D!?!"\$
       =0; E!?"$ =620'6/H$O94/,/,-$)94H6/H&J$aY$5P9/,-$!?!"W$!?!!$
       =Q; `$>??"$ Y,69+1&H6/+,$6+$=620'6/H$Q94/,/,-$V0/,/H40$)94H6/H'$5&JJ'9$!?!"$
                      !?!!$
       =Q; \$>??!$ )9+6'H6/8'\$Q4P/, -\$4, 1$:94H/, -\$5\&JJ'9$!?!"D!?!#$
       =0: \$>"?#\$ *+Z'\9\$\IS69'\J'\6(\$\U\962+\$\I\8404\&\6/+\.\$.400\$!?!"\D!?!#\$
       =Q; `$>"?E$ V0/,/H40$O/4-,+36/H$)9+H'1&9'3&5P9/,-$!?!#$
       =Q; `$>!??$ =620'6/H$Q94/,/,-$V0/,/H40$)94H6/H'$YY$5P9/,-$!?!!$!?!#$
       =0; \$>!?"\$ 7PP'9\$IS69' J/6(\$U962+\$I840&46/+,\$5P9/,-\$!?!!\$!?!#\$
       =Q; `$>!?!$ Q2'94P'&6/H$R+140/6/'3$.400$!?!"D!?!#$
       =Q; SE?" R4,4-'J',6\$+6\$ 69/6/+,40\$W) 3(H2+3+H/40\$V+,1/6/+,3<\$.400\$!?!!
       =0; \$B??$ =620'6/H\$O94/./.-\$V0/./H40$)94H6/H'\$a\$5P9/.-\$!?!#\$
       XY`$!B??$
                      \% \& J 4, \$ = ,46 + J (\$5 \& J J '9\$!?"B\$
                      R'1/H40\$O'9J/,+0+-(\$5P9/,-\$!?"d\$]/,6'93'33/+,\$!?"d\$
       XY`$!B?F$
       XY`$!d??$
                      %&J4,$5'S&40/6($5&JJ'9$!?">D!?!"\$]/,6'93'33/+,$!?">D!?!?$
       XY`$!F??$
                     Y,1'P',1',6$56&1($5P9/,-$!?!!$
```

```
XY`$#B?F$
               O2'94P'&6/H$; '24L/0/646/+, $5P9/, -$!?"B$
XY`$#B"!$
               Q2'94P'&6/H$R+140/6/'3$.400$!?"B$5P9/,-$!?">D!?"F$
               IS'9H/3'$)9+-94 J 3$4,1$Y J P0' J',646/+, $\$.400$!?!"$5P9/,-$!?!!$
XY`$EB#B$
XY`$EB#@$
               )94H6/H&J$/,$IS'9H/3'$5H/',H'$5P9/,-$!?!!$
XY`$EB?B$
               %&J4.$R+8'J'.6$Y.6'9.32/P$5&JJ'9$!?"BD!?"@$
               \% \& J4, \$R+8'J', 6\$, 6'9, 32/P\$/, \$V+364\$; /H4\$R4( J'36'9\$!?"F\$
XY`$EB?B$
                                                  .400$!??#D .400$!?"E$
= 0 \# ?"
               V0/,/H40$ISP'9/',H'3$/,$=620'6/H$Q94/,/,-$.400$!??#D!?"E$
               V0/,/H40$ISP'9/',H'3$/,$=620'6/H$Q94/,/,-$5P9/,-$!??ED!?"E$
=0##?!$
               )9/,H/P0'3$+6$O9&-$Q2'94P($G+9$=620'6/H$Q94/,'93$.400$!??ED!??F$
= 0##d?$
               I 840&46/+, $+6$=620'6/H$Y, ^&9/'3$4, 1$Y00, '33'3$Y$*4L<$.400$!??FD!?"#$
=0\*#Fd\$
               I 840\&46/+, \$+6\$=620'6/H\$Y, ^\&9/'3\$4, 1\$Y00, '33'3\$YY\$*4L \&5P9/, -\$!?"?D
= 0$*#F>$
               !?"E$
=QEE?"
               V0/,/H40\(\sqrt{1}\)SP'9/',H'3\(\sqrt{1}\)$=620'6/H\(\sqrt{9}\)4/,/,-\(\sqrt{1}\).400\(\sqrt{1}\)??BD!?"#\(\sqrt{1}\)
= 0 EE?!
               V0/, H40$ ISP'9/', H'3$/,$=620'6/H$Q94/,/,-$5P9/,-$!??dD!?"E$
               Q2'94P'&6/H$R+140/6/'3<$.400$!??#D!?"#$
=QEEE>$
               Q2'94P'&6/H$IS'9H/3'\$5P9/, -\$!??ED!?"E\$
= Q$EEE@$
X%)$!!?!$
               ./936\$ = /1\$4, 1\$V); \$5P9/, -\$!??ED!??B\$
X%)$!!E?$
               ) '93+,40\% '4062\$5&JJ '9\$!??>\$
               X/, '3/+0+-(\$5\&JJ'9\$!??>\$
X%)$##B!$
X%)$##FB$
               V49'$W$)9'8',6/+,$+G$=620'6/H$Y,^&9($.400$W$5P9/,-$!??ED!??F$
               V49'$W$)9'8',6/+,$+6$=620'6/H$Y,^&9($'DH+&93'$5&JJ'9$!??@$
X%)$##FB$
               IS'9H/3'$O'36/,-$W$)9'3H9/P6/+,$.400$!??d$.400$!??>$
X\%) EE>B
X\%) $EE>d$
               IS'9H/3'$5H/',H'$*4L$)94H6/H&J$5P9/,-$!??>$
               )2(3/H40\%./6, '33\%=\$V9/6/H40\%=,40(3/3\%5\&JJ'9\%!??F\%)
X%)\\\dd!?\\
               V9/6/H40$Y33&'3$/,$5P+96$4,1$./6,'33$R4,4-'J',6\$.400$!??F$
X%)\\\d#!\\
X\%)d>?
               IS'9H/3'$O/3'43'$4,1$)9'8',6/+,$.400$!??@$5P9/,-$!?"?$
                                                 .400$!??"D 5P9/,-$!??#$
%); $"d?$
                : '-/, ,/, -\$Z/J J/, -\\$.400\\!??"\$5P9/, -\\!??!\\$
%); $!"F$
               Y,69+1&H6/+,$6+$=620'6/H$Q94/,/,-$$$5P9/,-$!??#$
               Q4P/, -\$4, 1\$ + 94PP/, -\$+6\$=620'6/H\$Y, ^&9/'3\$G+9\$=620'6/H\$Q94/, '93\$\$
%); $!>E$
               5P9/, -$!??!$
%);$#?F$
               ./936$=/1K$$.400$!??"$
%);$#>?$
               V49'\$4,1\$)9'8',6/+,\$+6\$=620'6/H\$Y,^&9/'3\$G+9\$V+4H2'3\$\$\$,400\$!??''
               5P9/.-$!??!$
%):$#>"$
               V49'$4.1$)9'8'.6/+.$+6$=620'6/H$Y.^&9/'3$G+9$=620'6/H$O94/.'93$$
               .400$!??!$
%); $E>!$
               =620'6/H\$Q94/,/,-\$5'J/,49\$YYK\$\$5P9/,-\$!??#$
```

A,g@C\$

```
)9',6/H'<$ ] N\$:+L+\$*\$W\$
                                        A!?!?CN$!"#$%&'()*+"#$#'(,,-'
266P3K\\4PP3N4PP0'NH+J\&3\4PP\62'9'SD4,(Z2'9'\/1"B#FE"@##@$
                          N\$W\$: +L+\$*N\$A!?"#C\\$<u>(."/#.01'!\$20)0)3'4/56'7#"28'A"\\!C</u>\\$
)9'.6/H'\$ 1 N\$
O'3/-, '1\$Z/62\$+8'9\$dB?h\$L404, H'\$H+9'\$4, 1\$364L/0/6(\$8/1'+3\$6+\$32+Z\$(+\&9\$)
P46/',63$2+Z$6+$H+99'H60($P'96+9J$'S'9H/3'3$4,1$6'H2,/c&'3$6246$49'$
H9/6/H40\%6+\%62'/9\$3&HH'336\&0\$9'24L/0/646/+.\$4.1\$9'H+8'9(\\$iR+L/0'\$4PP0/H46/+.\$
3+G6Z49'jN$; '69/'8'1\$G9+J\$266P3K\\/6&, '3N4PP0'NH+J\30\4PP\4620'6/HD694/, '9DP0&3D
L404, H' \lor 1BF#d#B?EBk J 6g@N$
                          N$W$:+L+$*N$A!?"#CN$4"*6012/'!"#$2,*'4/56'A"N?CN$
)9',6/H'\$ ] \\$
O'3/-,'1$Z/62$+8'9$!??h$L404,H'\$H+9\\$4,1\$364L/0/6(\$8/1'+3\6+\$32+Z\$(+\&9\$P46/',63\$
2+Z\$6+\$H+99'\H60(\$P'96+9J\$'S'9H/3'3\$4,1\$6'\H2,\c&'3\$6246\$49'\$H9\6\H40\$6+\$62'\9\$
3&HH'33G&0$9'24L/0/646/+,$4,1$9'H+8'9(\\$iR+L/0'\$4PP0/H46/+,\$3+66Z49'i\\$;'69/'8'1\$
G9+ J $266PK\P2(3/H4062'94P/36P0&3NH+ J \13'HBN$
                                 N(\$: +L+(\$*N\$5N\$A!?"\#CN\$Y,\$a4,\$:9/',\$W\$=33+H/46'3\$
)9',6/H'\$ ] \\$ I
AI1NC$(."/#.01'!$20)#$'4/569':/#&080/0.*'A"N!CN$56N$*+&/3$RUKN$
6&, '3N4PPO'NH+J\&3\4PP\4620'6/HD694/, '9DP0&3DL404, H'\/1BF#d#B?EBk03g"WJ6g@N$
)9',6/H'\$ ] N\$ I N\$
                                 NS: +L+S*NS5NSA!?"#CNSY.$a4.$:9/'.$W$=33+H/46'3$
AI 1NC$(."/#.01'!$20)#$'4/569'; 2)52/'!"#$2, *'A"N!CN$56N$*+&/3$RUKN$
/6&, '3N4PP0'NH+J\&3\4PP\4620'6/HD694/, '9DP0&3D9'24L\/1BF#d#B?EBkJ6g@N$
)9',6/H'<$ ] N$IN$
                                 N(\$: +L+(\$*N\$5N\$A!?"\#CN\$Y,\$a4,\$:9/',\$W\$=33+H/46'3\$
AI1NC$(."/#.01'!$20)#$'4/569'<.$#)3."N$A"N?C$56N$*+&/3$RUKN$
/6&, '3N4PP0'NH+ J \&3\4PP\4620'6/HD694/, '9DP0&3DL404, H'\/1BF#d#B?EBk03g"W J 6g@N$
                          \ \\$W\$: +L+\$*\\$A!?"!\\$(.\"/\\\.01'!\$20)0)3'4/56'=2/2)1\\\'
)9',6/H'\$ ] N\$
A"N?CN$O'3/-,'1$Z/62$+8'9$!??h$L404,H'<$H+9'<$4,1$364L/0/6($8/1'+3$6+$32+Z$(+&9$
P46/',63$2+Z$6+$H+99'H60($P'96+9J$'S'9H/3'3$4,1$6'H2,/c&'3$6246$49'$H9/6/H40$6+$62'/9$
3&HH'33G&089'24L/0/646/+,$4,1$9'H+8'9(\\siR+L/0'\$4PP0/H46/+,\$3+G6Z49'i\\si:'69/'8'1\s
69+ J $266P3K\\/6&, '3N4PP0'NH+ J \&3\4PP\/1BF#d#B?EBk J 6g@N$
                          N$A!?"?$.'L9&49(CN$>?))#1.'.?'4$0)10,/#6'?@'(."/#.01'
: +L+<$* W$
<u>/ $20 ) 0 ) 3\\\</u>$ R HT94ZD\% /00\$ ) &L0/32 '93\\$ V+ J P9 '2 ', 3/8 '\$ J &06/D J '1/4\$36\&1 (\$-\&/1 '\$6+\$
(\$)''''0AB6'4\$0)10, /#6'?\%'(.''/#.01'!\$20)0)39'('>?A, #.#)1*C826#D'(,, \$?21''E'FG'^h
#D-Y5: `D"#$F>@??>>#E>Ed@N$
```

A, g"EC\$

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-		_
_		_
		_
		
		<u>—</u>

N\$A!??>CN\$76/0/q/,-\$O4966/32\$G+9\$8/1'+\$G''1L4Hb\$/,\$62'\$: +L+<\$*\\\$W\$ 4Hc&/3/6/+,\$+G\$H0/,/H40\$3b/00\$1'8'0+PJ',6\$+G\$4620'6/H\$694/,/,-\$36&1',63-')9+^'H6\$-94,6\$ P9+P+340\\$3&L J /66' 1\\$6+\\$62'\\$ \ 46/+ \ 40\\$=620' 6/H\\$O94/ \ '93 \\$=33+H/46/+ \\\$: '3' 49H2\\$4 \ 1\\$ I 1&H46/+, \$.+&, 146/+, \$6+9\$4\$P9'DP9+P+340\$3&L J/33/+, \$AUH6+L'9\$!d\\$!??>C\\$A&, 6&, 1'1C\\$ 5P&90+Hb<\$=N\$5 J /62<\$ I N\$ N\$%+Z491\$VN\$W\$] ''1\$ON\$A!??dC\$] + J',\$Y./6/46/.-\$`'Z\$] 4(3\\A]Y`C\\\$; nX=\\$]+J',_3\\\$./6,'33\\T94,6\\\$]+J',_3\\5P+963\\ .+&, 146/+, \$1436\$R'41+Z\$`'Z\$n+9b\$\$=J+&, 6\$3+&-26\$pB???\$?\$&&, 6&, 1'10\$N\$A!??BC\$Q2'\$IGG'H63\$+G\$Q29''\$Y,369&H6/+,40\$Y,6'98',6/+,\$)9+6+H+03\$+,\$ =620'6/H\$Q94/,/,-\$56&1',6\$)''9DQ'4H2'9\$.''1L4Hb\$: '248/+9K\$\$4.\$I1&H46/+,40\$ Q'4H2/, -\$7, /6\$O'3/-, \$=PP9+4H2N\$) 4P'9\$) 9'3', 646/+, \$T94, 6\$Q9+(\$7, /8'93/6(\$Q9+(\$P)) 9'3', 646/+, \$T94, 6\$Q9+(\$P) 9'3/6(\$Q9+(\$P)) 9'3/6=04L4 J 4N\$= Z491 ' 1\$4 J + & ,6\$p>B?N??\$N\$A!??BC\$%+Z\$)9+P'9\$Y.369&H6/+.\$V4.\$IGG'H6\$=&-J'.6'1\$.''1L4Hb\$Y.\$)''9\$Q'4H2/,-\\\$ 5&JJ'9\$;'3'49H2\\$T94,6\\$Q9+(\\$7,/8'93/6(\\$Q9+(\\$=04L4J4\\\$\$ = Z491'1\$4J+&,6\$pEB??N\$A!??EC\$Q2'\$IGG'H63\$+G\$Y,369&H6/+,\$+,\$5'0'H6'1\$:'248/+93\$+G\$)9'D 3'98/H'\$=620'6/H\$Q94/,/,-\$56&1',63\$Q&9/,-\$)''9\$Q'4H2/,-\\\$\)4P'9\\)9'3',646/+,\$T94,6\\$ Q9+(\$7,8'93/6(\$Q9+(\$=04L4J4)\$)=Z491'1\$4J+&,6\$pB""NB?N\$

NO'D#)?.#6'15\$\$#).'?\$'@?\$A#\$'6.5D#).P'

A.g#C\$

A, g!dC

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W$; '/1$R$A[&, '$!?''>C$76/0/g/, -$18/1', H'$: 43'1$)94H6/H'$V+,6/,&/,-$
I 1&H46/+,$7,63$6+$I 1&H46'$V'96/6/'1$=620'6/H$Q94/,'93$+,$T','940$R'1/H40$
V+.1/6/+.3\%\$162.\H400(\$O/8'93'\$)+P\&046/+.3\\$A)+36'9\$W\$U940\$)9'3'.\646/+.\C\$!?''>\$
 .+&36\$R\\r\$\%49P'9\$:\\\$
                                                        N$A[&,'$!?">CN$A)+36'9$)9'3',646/+,C$T948'3$
O/3'43'$\,$4$">D('49D+01\$.++6L400\$)04('9\\$!?">\$`46\+.40\$=620'6\H\$O94\.'93\$
=33+H/46/+, V+, G'9', H' + 36+, Q'S43N
                                       A. 'L9&49($!?">CN$Y,6'-946/,-$a/1'+$.''1L4Hb$Z/62$62'$
: +L+<$*$
=Hc&/3/6/+,$+6$V0/,/H40$5b/003$6+9$56&1',63\\$!?">$\delta 46/+,40\\\=620'6/H\\\094/,'93\\\
I 1&H46+93$V+, G'9', H'$O40043$Q'S43\\$
                    W$:+L+\$*\$A.'L\9\&49(\$!?''>\C\\\\+Z\\\H4.\$(+\&\$J4b'\$(+\&\9\\T941\&46'3\$:'66'\9\\
)9'H'P6+93k$!?">$`46/+,40$=620'6/H$Q94/,'93$I1&H46+93$V+,G'9',H'$O40043$Qo\$
R4.3P'4b'9\$5\\$W\$
                                                 N$AUH6+L'9$!?"dCN$I,3&9/,-$4,1$%/-20/-26/,-$m&40/6($
V0/, H40$ I 1&H46/+, $G+9$=HH9 ' 1/646/+, $\infty$!?"d$=,,&40$V==Q I$=HH9 ' 1/646/+,$
V+,6'9',H'<$Q4JP4<$.0+9/14\\$
                  NSWSQ/00 J 4, SRNSA[4, &49($!?"ECNS=119'33/, -$=1 J/, /36946/8'$V2400', -'3$]
/,$) '9G+9 J /, -$. 4H&06($ I 840&46/+, 3\\$! ? "E\$` 46/+, 40\\$=33+H/46/+, \$G+9\\$X/, '3/+0+- (\$/, \$
\%/-2' 9$ I 1&H46/+, $54,$O/'-+$V40/G+9,/4\\$
                  N$W$; +19/-&'q<$; N$AUH6+L'9$!?"#CN$V+JL/,/,-$5P+96$4,1$R'1/H/,'$
)9+-94 J 3\%6+\$V9'46'\$Y,6'\9,46/+,40\$)496, '932/P3\\$%/3P4,/H\$=33+H/46/+,\$+G\$V+00'-'3\$4,1\$
7./8'93/6/'3\langle V2/H4-+\langle V00/,+/3V \rangle
O9+66'9<$`r$W$
                                          N$A[&,'$!?"#CN$Y,H/1',H'$+G$=&6+/JJ&,'$`'&9+J&3H&049$
\% (P'9DISH/64L/0/6($/,$4$O/8/3/+,$Y$V+00'-/46'$=620'6'\\\\ A)+36'9\\))9'3',646/+,\($\ 46/+,40\\\\
=620'6/H\$Q94/, '93\$=33+H/46/+,\$=,,&40\$R''6/,-3*43\$a'-433`'8414\\
                                                W$T9'', $R \\\[\$A[\&, '\$!?"\#C\\\\Q2'\$IGG'\H63\\\+G\\$.46\-\&'\\\+,\\$
X9(-0+Z3b/\$=r\$
: 404, H'$76/0/q/, -$62'$\',6',1+$]/\$: 404, H'$: +491NA)+36'9$)9'3',646/+,C\'46/+,40$
=620'6/H\$Q94/, '93\$=33+H/46/+,\$=,,\&40\$R''6/,-\$*43\$a'-43\$`'8414\$\$
                                      N$A[&,'$!?"!C\\$\%+Z\$6+\$Y,6'-946'\$V\&06\&940\$V+JP'6',H'\$/,6+\$
: +L+<$*\\$W\$
n + \$9\$V\$99/H\&0\&J-A)+36'9\$9'3',646/+,C\$^46/+,40\$=620'6/H\$O94/,'93\$=33+H/46/+,$
= , &40\$ R ' '6/, -\\$54/,6\$*+&/3\$ R/33+&9/\\$
T9'', $R N5N$R 496/, $ONON$
                                                                     (V+9+.4): NON(Y.-4003)VN) NSA!?"!CNS
YL&P9+G', $P9+0+, -3$G&, H6/+, 40$1'G/H/63$4G6'9$4$9'P'46'1$L+&6$+G$1+Z, 2/00$69'41 J/00$
9\&, , /, -1\% = V5R\$ = , , &40\%V + , 6'9', H'\$54, \$.94, H/3H + &V40/G + 9./4\\
                  N$W$:+L+$*N$A[&,'$!?""C\\\\+Z\\6+\$O'8'0+P\\4\\56\&1(\$=L9+41\\$)9+-94J\\,\$
V&06&940$4,1$162,/H400($O/8'93'$*+H46/+,3-'A)+36'9$)9'3',646/+,C$`46/+,40$=620'6/H$
Q94/, '93\$ = 33 + H/46/+, \$ = , , \&40\$ R''6/, -N\$ 'Z\$U90'4, 34* + \&/3/4, 4N\$
                                       N$A.'L9&49($!?""CN$<u>76/0/q/,-$*+H40$;'3+&9H'3$6+$V9'46'</u>$
:+L+<$*\\$
m\&40/6(\T', '940\R' 1/H40\V0/, /H40\ISP'9/', H'3\\S!?""\S:/D=, \&40\A0/+, 40\S=620'6/H\S)
Q94/,/,-$I1&H46+93$V+,G'9',H'N$] 432/,-6+,$OVN$
                                       N$A.'L9&49($!?""CN$: &/01/, -$4$V+JP9'2', 3/8'$R436'9$
: +L+<$*\\$
=33'33 \text{ J}',6\$)04,\$\$A)+36'9\$)9'3',646/+,C\$!?""\$:/D=,,&40\$^46/+,40\$=620'6/H$Q94/,/,-$
I 1&H46+93$V+,G'9',H'N$ ] 432/,-6+,$OVN$
                       \label{eq:local_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_cont
12',$=33'33/,-$56&1',63 $V0/,/H40$5b/003k$A)+36'9$)9'3',646/+,C$!?""$:/D=,,&40$
 `46/+,40$=620'6/H$Q94/,/,-$I1&H46+93$V+,G'9',H'N$ 1 432/,-6+,$\text{$OV}\\$
```

\%\\$:+L+\\$*\\\$W\\$5	P&90+Hb<\$=N\$A5'	'P6' JL'9\$!	??FCN\$ <u>73/,</u>	-\$a/1'+\$G''	<u>1L4Hb\$6+</u> \$
					_
		_			
					_
		_			

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N_AUH_6+L'_9!?"dCN_V==OI_S; '8/'ZSO'_4J_SO_{94}/_,_-K_SV+J_J+_0(_SR_{41}'_S)
R/364b'3\$/, \$62'\$; *8/'Z\$) 9+H'33\\$V = = QI\$; *8/'Z\$Q'4J\$Q94/, */, -4\Q4JP4\$. 0+9/14\\\$
           NAUH6+L'9!?"BCNV=QI$; '8/'ZQ'4J$Q94/,/,-KQ2'$Y,3V4,1V63V5
=HH9'1/646/+, \%V = = OI\%; '8/'Z\%O'4J\%O94/,/,-\%O4JP4\%.0+9/14\%
           \\$W\$: +L+\$\*\\\AU\H6+L'\9\$!?''BC\\$UPP+\96&,\6\'3\$G+\9\$Y,6'\9,46\+,40\$V0\/,\H40\$
ISP'9/', H'3\)9+-94J ISH24, -'3NSV = QIS=HH9'1/646/+, SV+, G'9', H'3Q4JP43
.0+9/14N$
          NAUH_6+L'_9! ?"BCN$=184, H'1$) 9+-94 J J 46/H$=33'33 J', 6K$ R 4b/, -$T++1$
: 66'9\%V = QI\% = HH9'1/646/+, V+, G'9', H'\%Q4JP4\%.0+9/14\%
           NA[\&, '\$!?"!CN\$73/, -\$.4H'L++b<\$QZ/66'9\$4, 1\$5+H/40\$R'1/4\$G+9\$
`'6Z+9b/,-\\\`46/+,40\\=620'6/H\\094/,'93\\=33+H/46/+,\\=..&40\\R''6/,-\\54/,6\\*+&/3\\
R/33+&9/1
                                A, g"EC$
)46/, \$ r \$ V + 00/, 3 \$ R \$
                                N$A. 'L9&49($!?"FCN$Q9'46J',6$4,1$R4,4-'J',6$+G$
T/4, 6$V'00$Q&J+9$+6$5(,+8/&J\\$5+&62'436$=620'6/H$\Q94/,'93\\$56&1',6\\$5(JP+3/&J\\$5(JP+3/\$0)$
=604,64$T'+9-/4\\$AU940\$W\$)+36'9C\\$\$
./32'9\$X\\r\$
                       N$A. 'L9&49($!?"@CN$)4-'6D5H29+'66'9$5(,19+J'$43$4$; '3&06$+G$
Q2+94H/H$U&60'6$5(,19+J'$/,$4$V+00'-/46'$:43'L400$)/6H2'9\$5+&62'436\$=620'6/H$
O94/, '93$56&1',6$5(JP+3/&J$=604,64$T'+9-/4\$AU940$W$)+36'9C$
+ \&36 \le R \ r \le V + 00 / .3 \le R \ s \le W
                                     N$A.'L9&49($!?">CN$Q2'$R4,4-'J',6$+G$
V29+,/H$796/H49/4$/,$4$.'J40'$V+00'-/46'$:43b'6L400$)04('9\$5+&62'436\$=620'6/H$
Q94/, '93$56&1',6$5 (JP+3/&J$=604,64$T'+9-/4\$AU940$W$)+36'9C$
           T9'', R W. +96' VrNA[&0($!?"dCNQ2'$IGG'H6$+GR+&62-&4913$+.$]
=620'6/H$\) '96+9 J 4, H'\\$5+\&62Z'36\$=620'6/H\$Q94/, '93\$=33+H/46/+, \$=11/3+, \$Q'S43\\$
                       N$A.'L9&49($!?"ECN$\%+Z$\YL&P9+G',$IS4H'9L46'1$4$
R + \& .6 < [r]W
%' J + 62 + 94S$\,\$4$\O\8\\\3\\+\$\$\V+00' \-\\46'\$\.\+\6\L\400\$\)\04('\9\\\\\)\\3\\+36'\9\\\)\9'\3'\\,646\\+\\C\\\$
5+&62'436$=620'6/H$Q94/, '93$56&1',6$5(JP+3/&J$=604,64$T'+9-/4\$
T9/GG/.\langle Xr W \rangle
                        N$A. 'L9&49($!?"ECN$Q2+94H/H$U&60'6$5(,19+J'$5'H+,149($6+$
I 66+96$Q29+ J L+3/3$/,$4$Q/8/3/+,$"$569',-62$W$V+,1/6/+,/,-$V+4H2\$5+&62'436$
=620'6/H\$Q94/, '93\$56\&1', 6\$5(JP+3/&J\$=604, 64\$T'+9-/4N\$
          5'S6+, 5[r$W$T9'', $RN$A.'L9&49($!?"#CN$=$)/0+6$56&1($Y,8'36/-46/.-$)
62'$I66'H6$+6$V+,H&33/+, $%'/-26$4,1$T',1'9$+,$O+J/,4,6$*'-$564L/0/6($4,1$V',6'9$
+6$: 404, H'$/, $O/8/3/+, $Y$=620'6'3$76/0/q/, -$62'$\`/,6', 1+$] //$: 404, H'$5 (36' J $AU940$
W$) + 36'9$) 9'3', 646/+, CN$: /-$5b($=620'6/H$Q94/,/,-$4,1$5P+963$R'1/H/,'$V+,G'9',H'N$)
:/-\$5b(\$R+,64,41)
: +L+$*<$
                   2'J46+J4$+G$62'$9/-26$694,38'93'$H+0+,$4,1$/3H2'J/H$H+0/6/3$/,$4$H+00'-'$G++6L400$
=11/3+, (0'S43)
X9(-0+Z3b/\$=r\$:94Hb\$ \ \ r\$
                                      N$W$T9'', $RN$$AR49H2$!?"!CN$Q2'$IGG'H63$
+6$. 46/-&'$+, $: 404, H'N$A) + 36'9$) 9'3', 646/+, C$5+&62'9, $5P+96$R4, 4-'J', 6$
V+, G'9', H'N$Q9+($=04L4 J 4N$
                          N_A[4, &49($!?"?CN_Q2'$IGG'H6$+G$5+H/40$`'6Z+9b/, -$5/6'3$
50&1'9<$: N\$W\$
A'-N$. 4H'L++b\R (3P4H'C$+, 8\%/9/, -$) 94H6/H'3$/, 8XD''!$) &L0/H$I 1&H46/+, N$5249'$62'$
1'4062\$V+, G'9', H'\$['b(00\$Y304, 1\$T'+9-/4)\$
```

\\\\$:+L+\\\$*\\\\$W\\$5	$P\&90+Hb \le = NA. L9\&49(\$!??@CNQ'H2,/c\&'3\$+GNJP9+8/,-\$$
	CD4, 40(3/3\\$4, 1\\$8/1'+\\$G''1L4Hb-'\A)+36'9\\$)9'3', 646/+, C\\$
O9& J J+,1\$[N*N\$5P''1\$`NJ	R N\\$W\\$ \ \\\\$A R 49H2\\$!??dC\\\\\Q2'\\$; '046/+,32/P\\$
· —	8\$4,1\$IGG'H6/8'\$I0'J',649(\$)2(3/H40\$I1&H46/+,\$
Q'4H2/, -NSA) + 36'9\$)9'3',646/	+, C! ?? d \$5+&62'9, $SO/369/H6$ \$==)% I; O \$V+, G '9', H '
a/9-/,/4: '4H2<\$a/9-/,/4N\$	
	?#C\$; 'H+91\$X''P/, -\$4,1\$O+H&J',646/+,\\\$5+&62'436\
•	,\$56&1',6\$5(JP+3/&J\\\$=604,64\\$T'+9-/4\\$
2 /	\$=33+H/46/+,\$56&1',6\$5(JP+3/&J\$=604,64\$T'+9-/4\$
I J '9-', H(\$R '1/H40\$5/6&46/+	
, (1	-,3\$*4L+946+9(\$Y,369&H6+9<\$.'L9&49(\$!??!\$
, ,	?!C\$I J '9-', H(\$R '1/H40\$V+, 1/6/+, 3\\\$5+&62'436\\$=620'6/H\\$
•	6\$5 (JP+3/&J)\\$=604,64\\$T'+9-/4\\$
ψ, , , , , , , , , , , , , , , , , , ,	000 (31 15/00 3 10 - 001, 010 1 17 / 10
	
	
	

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A. 'L9&49(\$!?''@CN$)3(H2+3+H/40$V+,H'9,3$/,$=620'6/H$Q94/,/,-K$Y3$/6$400$/,$
62'/9\2'41k\5+\&62'436\=620'6/H\Q94/, '93_\$=33+H/46/+,\$56\&1',6\$5(JP+3/&J\$=604,64\$
T'+9-/4$
            A. 'L9&49($!?"@CN$5+H/40$R'1/4$/,$!?"@K$O2'$2/11',$14,-'93N$5+&62'436$
=620'6/H\$Q94/, '93_\$=33+H/46/+, \$56\&1', 6\$5(JP+3/\&J\$=604, 64\$T'+9-/4\$
            A. L9\&49(\$!?"@CN\$Q2+94S\$4,1\$=L1+J/,40\$Y,^&9/'3N\$5+\&62'436\$=620'6/H\$
Q94/, '93_$=33+H/46/+, $56&1', 6$5(JP+3/&J$=604,64$T'+9-/4$=7.4$
            A. 'L9&49($!?">CN$)3(H2+3+H/40$/,$62'$6/'01$=620'6/H$Q94/,/,-$\$5+&62'436$
=620'6/H\$Q94/, '93_\$=33+H/46/+, \$56\&1', 6\$5(JP+3/\&J\$=604, 64\$T'+9-/4\$
            A. 'L9&49($!?">CN$5+H/40$R '1/4$4, 1$/63$Y J P4H6$+,$(+&9$[+LN$5+&62 '436$
=620'6/H\$Q94/, '93_\$=33+H/46/+, \$56\&1', 6\$5(JP+3/\&J\$=604, 64\$T'+9-/4\$
            A. 'L9&49(\$!?"dCN$76/0/q/, -$5+H/40$R'1/4$6+$n+&9$:','G/6$]2',$
5'49H2/,-$6+9$[+L3\$5+&62'436$=620'6/H$Q94/,'93$=33+H/46/+,$56&1',6$5(JP+3/&J$
=604,64 < T' + 9 - /4
            W\$: +L+\$*\$A!?"d0\$O2'94P'\&6/H\$R+140/6/'3\$/,\$62'\$V0/,/H40\$5'66/,-N\$
5+&62'436$=620'6/H$Q94/,'93 $=33+H/46/+,$56&1',6$5(JP+3/&J$=604,64$T'+9-/4$
            A. 'L9&49($!?"BC\\\\Q2'\$=: V_3\\+G\\\5+H/40\\\\R'1/4\\\\5+&62'436\\\=620'6/H\\\
Q94/, '93_$=33+H/46/+, $56&1', 6$5(JP+3/&J$=604,64$T'+9-/4$=7.4$
            A. 'L9&49($!?"BC\\\\Q2+94S\\\4,1\\=L1+J/,40\\\Y,^\&9/'3\\\\5+\&62'436\\=620'6/H\\\
Q94/, '93_$=33+H/46/+, $56&1', 6$5(JP+3/&J$=604,64$T'+9-/4$=7.4$
           NSA. L9&49(\$!?"ECNSV9'46/8'\$] 4(386+\$R4b'\$62'\$`'Z$V = = QI\$564,14913\$
1 + 9b\$. + 9\$n + \&9\$) + 9 + 94 J \$5 + \&62 '436\$ = 620 '6/H\$O94/, '93 \$ = 33 + H/46/+, \$I 1 \&H46 + 93\$
V+, 6'9', H' \le 604, 64 \le T' + 9 - /4
           N$A. 'L9&49($!?"ECN$.4H'L++<u>bK$O+$(+&$9'400($Z4,6$6+$L'$+,$3+H/40$J'1/4kN</u>$
```

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*4L+946+9($V++91/,46+9<$.'L9&49($!??B$
5+&62'436$=620'6/H$Q94/, '93_$=33+H/46/+,$56&1',6$5(JP+3/&J$=604,64$T'+9-/4$
*4L+946+9($V++91/,46+9\$.'L9&49($!??E\$5+\&62'436\$=620'6/H\$O94/.'93\$=33+H/46/+.\$
56&1',6$5 (JP+3/&J$=604,64$T'+9-/4$
R+140/6/'3\$8/1'+\$
R+140/6/'3*4L+946+9($Y, 369&H6+9<$, 'L9&49($!??#$
                  A!?"@C\$R4b/, -\$(+&9\$\%/-2\$5H2++0\$54G'A9CN\$!?"@\$R/33/33/PP/\$=620'6/H\$
Q94/, '93\$ = 33 + H/46/+, \$5646' R''6/, -\$: /0+S/\$R/33/33/PP/N\$
: +L+<$*N<$
                                 A!?">CSR4b/.-S(+&9S\%/-2S5H2++0S54G'A9CNS!?">S7./8'93/6(S+GS)
5+\&62'9, R/33/33/PP/=,, &40\$5 (JP+3/&J\\%466/'3L\&9-\$R/33/33/PP/\\$
                R4,4-'J',60Q'H2,/c&'300!?">$7,/8'93/6($+6$5+&62'9,$R/33/33/PP/$=,,&40$)
A!?">C$=$9'8/'Z$+G$V+,H&33/+,$=33'33 J',6$4,1$R4,4-'J',6$
Q'H2,/c\&'3\%!?''>\$7,/8'93/6(\$+6\$5+\&62'9,\$R/33/33/PP/\$=,\&40\$5(JP+3/&J)\%
%466/'3L&9-$R/33/33/PP/\\$
:+L+<$*\\$
                               1\%7, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 
=620'6/H\$Q94/, '93\$=33+H/46/+, R''6/, -N`'Z\$U90'4, 3\$*+&/3/4, 4N\$
                N$A!?">C$Y,G'H6/+&3$O/3'43'3N$!?">$R/33/33/PP/$=620'6/H$Q94/,'93$
=33+H/46/+, \$5646'\$R''6/, -\$\$: /0+S/\$R/33/33/PP/\$
                NSA!?"ECS*'-40S*/4L/0/6(SWS=620'6/HSQ94/,/,-NS!?"ES75RS=0&J,/S
5 ( J P+3/& J $\%466/ '3L&9 - $\R/33/33/PP/\\$
                                 N$X/.-$V\\$54PP/.-6+.$5\\$W\$V+036+.\$R\\$A!?"EC\$)4.'0\$
.0+(1<\s\;0<\s\
1/3H&33/+, \(\sigma\) 162/H3\(\sigma\) 9+G'33/+, 40\(\sigma\); \('3P+\,3/L/0/6(\sigma\)!?\('E\)\(=04L4\) J 4\(\sigma\)\(=620'6/H\)\(\Q94/\), \('93\)\(\sigma\)
=33+H/46/+, $5646' $R''6/, -\\$: \( 9 J/, -24 J \$ = 04L4 J 4\\$)
                N$A!?"!C$Q'H2,+0+-(<\$32+&01\$Y\$0+8'\$/6\$+9\$246'\$/6\$!?"!\$=04L4J4\$=620'6/H\$
Q94/, '93\$ = 33 + H/46/ + , \$5646' R''6/, -N\$54, O'36/, \$.0 + 9/14N
                   5'S6+, 5[r$W$T9'', RNA!?""CNIGG'H6$+6$%'/-26$+, O+J/,4,6$*'-$
564L/0/6(\$/.\$R40'\$=620'6'3\$76/0/q/.-\$62'\$^/.6'.1+\$1//\$:404.H'\$5(36'J\\$!?""\$
=04L4J4\$=00/4,H'\$G+9\$\%'4062\$)2(3/H40\$I1\&H46/+,\$;'H9'46/+,\$4,1\$O4,H'\$=,,\&40\$
.400$ R''6/, -N$: /9 J/, -24 J $=04L4 J 4N$
                                         N$A!?""CN$O2'$IGG'H6$+G$.4H'L++b$+.$O'4H2/.-$
50&1'9<$[: \$W$
=PP0/H4,63$IJP0+(4L/0/6($/,$62'$5646'$+6$=04L4J4\$)=04L4J4\$=00/4,H'$6+9$%'4062$
)2(3/H40% I 1&H46/+, $; 'H9'46/+, $4,1$O4,H'$=,,&40$5P9/,-$R''6/,-\$U94,-'$: '4H2$
=04L4 J 4N
                   NAR4($!?"?N5+H/40$`'6Z+9b/,-$!?"?$=04L4J4$=620'6/H$Q94/,'93$
=33+H/46/+,$5646'$R''6/,-N$$54,$O'36/,$.0+9/14N$
                   N$AR4($!??FCN$=620'6/H$O94/./.-$I1&H46/+.K$Y6$V4.$:'$.&.$4.1$T4J'3N$
!??F\$=04L4J4\$=620'6/H\$Q94/, '93\$=33+H/46/+, \$5646'\$R''6/, -N\$\$54, \$O'36/, \$.0+9/14N\$
                   N$A[&0($!??@CN$Y,8+08'$4,1$I8+08'K$O2'$R+8'J',63$IGG'H6$+,$O/369/H6$
R/33/33/PP/\\$
```

 •

```
V24/9$+6\%62'\$=1\% UV$\V==QI\$)''\9\$;'\8/'\Z\$O'\8'\9+PJ',\6\$W\$Q\94/,\,-\$[&,'\$!?!?D
!?!!$
R'JL'9\$+6\$62'\$=1\%UV\$V==QI\$a/96\&40\$5/6'\$a/3/6+9\$694/,/,-\$[\&,'\$!?!?!?!!\$
Y, 8/6'1$.+H&3$T9+&P$)496/H/P4.6$6+9$1'8'0+PJ'.6$+6$5/6'$a/3/6+9$094/./,-$6+9$!?!?$
564, 14913\$. 'L9&49(\$!?"F\$
V24/9\$+6\$62'\$=1\%UV\$V==QI\$5/6'\$a/3/6+9\$5'0'\H6/+,\$V+JJ/66''\$!?''\@\$
V = = OI V + J J/66' V + J L'986 + 98 = HH9' 1/646/ + .8564 .149138 : '8/'Z$!?">D!?"FN8
!?"@\$`46/+,40\$=620'6/H\$Q94/,/,-\$V+,G'9',H'\$)9+-94JJ/,-\$;'8/'Z\$Q'4J\$
 : '8/'Z$V+JJ/66''$V24/9$6+9$62'$V+JJ/33/+.$+.$=HH9'1/646/+.$+.$=620'6/H$O94/./.-$
I 1&H46/+, $!?"dD!?"F$
 `46/+,40$=620'6/H$Q94/,'93$.+&,146/+,$5H2+04932/P$V+JJ/66''$V24/9$!?"dDP9'3'.6$
 `46/+,40$=620'6/H$Q94/,'93$.+&,146/+,$5H2+04932/P$V+JJ/66''$V24/9$I0'H6\$!?"BD
3P9/, -$!?"d$
 ; '8/'Z$V+JJ/66''$V24/9D'0'H6$G+9$62'$V+JJ/33/+,$+,$=HH9'1/646/+,$+,$=620'6/H$
Q94/,/,-$I1&H46/+,$!?"BD!?"d$
 ; '8/'Z'9$G+9$[+&9,40$+G$5P+96$4,1$%'4062$5H/',H'N$A!?"BD!?">CN$
!?"B\$=620'6/H\$Q94/,/,-\$I1\&H46/+,\$V+,6'9',H'\$)9+-94JJ/,-\$;'8/'Z\$Q'4J\\$
R+1'946+9\%6+9\%62'\$!?"#\$`=Q=\$=620'6/H\$Q94/,/,-\$I1\&H46+93_$V+,G'9',H'\\$
 : ++b$; '8/'Z'9\\%+0H+JL\\%4624Z4(\$)&L0/32'9\\$/#\$2/'; #D012/'>26#'<.5D0\#6'\@?\$'
(."/#.01'!$20)0)3'L($:'99($:4b'9$W$R/00'9$A!?""CN$
 ; '8/'Z'9\\(G+\\(S\)\(F+\\(S\)\), 6'9\(P9+\(G'\)33/+, 40\\(V49'\)\\(S\)\(F+\(S\)\), 40\\(F+\\(S\)\), 40\\(F+\(S\)\), 40\\(F+\(
 : ++b$)9+P+340$: '8/'Z'9\$*/PP/. H+66$1/00/4J3\$W$1/0b/.3$)&L0/32'93\$!"#$2.#5.01'
%&#$106#'?@'. "#'4"*6012//*'(1.0R#\$L(\$:49L494\$*+,-\\A!?""\\\\$
: ++b$; '8/'Z'9\$. =\$O48/3\}\&L0/32'93\\$!"#\$2, #5.01'; ?D2/0.0#6\textbf{E}\" '1\$L(\$5649b'(\$
A!?""CN$
R+1'946+9\%6+9\%62'\%!?""\% =Q=$=620'6/H$Q94/,/,-$I1&H46+93_$V+,G'9',H'\\$
=04L4 J 4$; 'P9'3', 646/8'$G+9$`46/+, 40$=620'6/H$Q94/, '93$=33+H/46/+, $e%/6$62'$%/00$
O4(f$A!?""CN$
 ; '8/'Z'9\\G+9\\62'\\[+\&9,40\\+6\\R/0/649(\\R'1/\H/,'\\!?"?\D!?"\B\\\\
V+JJ/33/+, -, -, HH9'1/646/+, -65=620'6/HSQ94/,/, -, I1&H46/+, AV==QICS; '8/'ZS
Q'4J$AQ'4J$*'41'9C\$!?"'?D!?"d\\$
 3^{1}/2^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1}/3^{1
!?"?DP9'3',6N$
 `46/+,40$=620'6/H$Q94/,'93$.+&,146/+,$5H2+04932/P$V+JJ/66''$R'JL'9$!??FD!?"B\\$
 ; '8/'Z'9$G+9$62'$Y,6'9,46/+,40$[+&9,40$+G$R'1/H40$I1&H46/+,$!??FD!?"E\$
=04L4J4\$; 'P9'3', 646/8'$6+9$`46/+, 40\$=620'6/H$Q94/, '93$=33+H/46/+, $e\%/6\$62'\$\%/00\$
O4(f\(\)\!??FC\\\\\
 : ++b$)9+P+340$; '8/'Z'9\$103'8/'9\$\&L0/32'93\\$!"\#'T/.0A2.\#'(.\"/\#.01'!\$20)0)3'
U?$L8??L$L($\%499/3$=9 J 369+, -$X46'3$W$`+91$!??@$
 : +491$+G$V '96/G/H46/+,$IS4J$O'8'0+PJ',6$V+JJ/66''$R&06/P0'$V2+/H'$m&'36/+,$
 ; '8/'Z'9\$!??@$
=04L4 J 4$; 'P9'3', 646/8'$G+9$`46/+, 40$=620'6/H$Q94/, '93$=33+H/46/+, $e%/6$62'$%/00$
O4(f$A!??@CN$
 : ++b$; '8/'Z'9\$*/PP/, H+66$] /00/4 J 3\$W$] /0b/, 3\$) &L0/32'93\\$(."/#.01'!\$20)0)3'<.5D*'
S 50D#N$A!??>CN$
```

```
56&1',6$V+JJ/66''\\\[&,'\$!??>D!?"#\$
: +491$+G$V'96/G/H46/+,$IS4J$O'8'0+PJ',6$V+JJ/66''$%(L9/1$m&'36/+,$]9/6'9$
!??>D!??@$
: ++b$: '8/'Z'9\\*/PP/.H+66\1/00/4J3\\$\1/0b/.3\$)&L0/32'93\\\$!"#\$2.#5.01': ?D2/0.0#6'
! "#" ($. '2) D' < 10#) 1#\$L(\$X\, , \62\$X, /-26\$4, 1\$O48/1\$O94P\9\$A!??>C\\$
V+JJ/33/+, $\$=HH9'1/646/+,$\$=620'6/H$Q94/,/,-$I1&H46/+,$5/6'$ a/3/6+9\$\$[4,&49($])
!??>DP9'3'.6
: ++b$; '8/'Z'9$\$RHT94Z$\%/00$)&L0/32'93\\$!"#$2,#5.01'; ?D2/0.0#69'':?$'<,?$.6'
; #D010)#'2)D'(."/#.01'!$20)0)3N$: ($ 1 /00/4 J $)9',6/H'$A!??dCN$
: +491$+6$V'96/G/H46/+,$IS4J$O'8'0+PJ',6$V+JJ/66''$G+9$R&06/P0'$V2+/H'$
m\&'36/+,3\langle\$!??dD!??>\$
%+J'$56&1($; '8/'Z'9$6+9$62'$:+491$+6$V'96/6/H46/+,$!??BD!?"B$
: +491\$+6\$V'96/G/H46/+, \$IS4J/, '94\$!??"D!??>\$
)9+6'33/+,40$O'8'0+PJ',6$O/9'H6+9$G+9$*+&3/4,4$=620'6/H$Q94/,'93$=33+H/46/+,$
!?!!DP9'3'.6$
3'43+, 4, 18/1', 10:43'1=PP9+4H2 40:46+, 40:46+
V24/9$+6$62'$R+36$O/36/,-&/32'1$=620'6/H$O94/,'93$V+JJ/66''$G+9$5I=O=$!?"#D
P9'3',6$
= O\%UV\$J'JL'9\$+G\%2'\$5I=O=\$\%400\$+G\$.4J'\$!?"#DP9'3',6\$
V24/9$+6$62'$=620'6/H$Q94/,/,-$56&1',6$5',46'$V+JJ/66''$!??>D!?"#$
=04L4 J 4$; 'P9'3', 646/8'$G+9$=04L4 J 4$=620'6/H$Q94/, '93$=33+H/46/+,$e%/6862'$%/00$
O4(f$A!??@<$!??F<$!?""CN$
5+&62'436$=620'6/H$O94/,'93$=33+H/46/+,$I1&H46+93$V+,G'9',H'$V+JJ/66''$!??B$
`46/+,40$=620'6/H$Q94/,'93$=33+H/46/+,$;'3'49H2$4,1$I1&H46/+,$.+&,146/+,$
=04L4 J 4\$5646'\$; 'P9'3',646/8'\$!??ED!?"E\$
5+&62'436$=620'6/H$Q94/,'93$=33+H/46/+,$56&1',6$]+9b32+P$)04,,/,-$V+JJ/66''$
!??"D!?""$
=PP+/,6'1\(\set\)J'JL'9\(\set\)+6\(\set\)2'\(\set\). &, \(H6/+\), 40\(\set\)] +9b369'4J\(\set\)T9+\(\delta\)P\(\set\)+9\(\set\)*57\(\set\)56\(\delta\)1', 6\(\set\)
Y, G+9 J 46/+, $5 (36' J $&P-941'D; '-/36946/+, $56&1', 6$; 'H+913$V&99/H&0& J$
R4,4-'J',6\$=H41'J/H\$.+\&,146/+,\$=H41'J/H\$=18/3/,-\\$=P9/0\$!?!"DO'H'JL'\9\$
!?!"$
=H41'J/H$)9+-94J3$4,1$V+&93'$=HH'33/L/0/6($ISH'P6/+,3$V+JJ/66''&R49H2$!?!"D
5'P6'JL'9$!?!"$
=1\%+H\H+J J/66''\*57\$.4H\&06(\$5',46'\$64,14913\G+9\\;'J+6'\$O'4H2/,-\V+J J/66''\\$
5P9/.-$!?!"$
V++91/.46'V.369\&H6+9$V); $H'96/G/H4/6+.3$G+9$*57$=620'6/H3$5&JJ'9$!?!?DP'3'.6$
=33/36\$\Z/62\$\R'\1/\H40\$\V\+\8'\94\-'\$\G\+\9\\*\5\7\$\=620'\6/\H3\\$\.400\$\!?\!\?\DP9'\3'\.6\$
V'96/G/'1\$VU a YO\$V+,64H6\$Q94H'9\$5P9/,-\$!?!?DP9'3',6\$
O'3/-,/,-\$4,1\$O'4H2/,-\$=HH'33/L0'\$V+\&93'3\$5P9/,-\$!?"F\$
```

O/369/H6\$Y o\$; 'P9'3', 646/8'\$+,\$62'\$`46/+,40\$V+00'-'\$W\$7,/8'93/6(\$=620'6/H\$Q94/,/,-\$

 $O'8'0+P\ J',6\$+6\$=620'6/H\$Q94/,/,-\$;'H9\&/6\ J',6\$\ a/1'+3\$.400\$!?!?DP9'3',6\$$ $R'JL'9\$+6\$62'\$=620'6/H\$Q94/,/,-\$T941\&46'\$56\&1',6\$5'0'H6/+,\$V+J\ J/66''\$.400\$!?!?DP9'3',6\$$

 $\begin{array}{l} R'JL'9\$+6\$62'\$=620'6/H\$Q94/,/,-\$5'49H2\$V+JJ/66''\$.400\5P9/,-\$!?!?D!?!"\$\\ R'JL'9\$+6\$62'\$IS'9H/3'\$)2(3/+0+-(\$5'49H2\$V+JJ/66''\\$.400\5P9/,-\$!?!?D!?!"\$\\ X/,'3/+0+-(\$b/Hb\$+66\$'8',63\\$.400\$!?!?\$\\ \end{array}$

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`46/+,40$=620'6/H$Q94/,'93$n+&,-$)9+G'33/+,403$V+JJ/66''$V49''9$5b/003$
 ] +9b32+P$\%+&36+,$Q'$43$[&,'$!?">$
^{46/+}, ^{40}=620'6/H$Q94/, '93$n+&, -$)9+6'33/+, ^{40}$V+JJ/66''$V49''9$5b/003$
 ] +9b32+P$: 406/J+9'$R49(04,1$[&,'$!?"d$
)04, ,/, -$+6$*+&/3/4, 4$5646'$7, /8'93/6($e%/-2$5H2++0$=620'6/H$Q94/,/, -$Q4(f$Z/62$
=620'6/H\$Q94/,/,-\$56\&1',6\$V0\&L\$R49H2\$!?"B\$W\$R49H2\$!?"d\$
*+&/3/4,4$5646'$7,/8'93/6($e=620'6/H$Q94/,/,-$V49''9$O4(f$Z/62$7,/8'93/6($*4L$
5H2++0\$R49H2\$!?"B\$
!?"B$W$!?"d$`'Z$U90'4,3$54/,63$%/-2$5H2++0$=620'6/H$Q94/,/,-$56&1',6$
5 ( J P+3/& J $
 1 406SO/3, '($ 1 +901$ 1 /, '$4,1$O/, '$%406$ R 49462+, $U904, 1+$\delta$.0+9/14$ \ +8' J L '9$
)/b'$V+&.6($=./J40\$52'06'9\$=18/3+9(\$:+491\$O9+(\$=04L4J4\$!?"?D!?"E\$
a + 0 \& , 6' '9 \& 6 + 9 \& 4?'' = , \& 40 \& 46/+ , 40 \& 620' 6/H \& Q94/ , '93 \& V + , 6' 9' , H' \& 54 , \$ = , 6+ , /+ \& 94/ , '93 \& V + , 6' 9' , H' \& 54 , \$ = , 6+ , /+ \& 94/ , '93 \& V + , 6' 9' , H' & 54 , $ = , 6+ , /+ \& 94/ , '93 \& V + , 6' 9' , H' & 54 , $ = , 6+ , /+ & 94/ , '93 \& V + , 6' 9' , H' & 54 , $ = , 6+ , /+ & 94/ , '93 \& V + , 6' 9' , H' & 54 , $ = , 6+ , /+ & 94/ , '93 \& V + , 6' 9' , H' & 54 , $ = , 6+ , /+ & 94/ , '93 \& V + , 6' 9' , H' & 54 , $ = , 6+ , /+ & 94/ , '93 \& V + , 6' 9' , H' & 54 , $ = , 6+ , /+ & 94/ , '93 \& V + , 6' 9' , H' & 54 , $ = , 6+ , /+ & 94/ , '93 \& V + , 6' 9' , H' & 54 , $ = , 6+ , /+ & 94/ , '93 \& V + , 6' 9' , H' & 54 , $ = , 6+ , /+ & 94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/ , '94/
Q'S43<\[\&, '\$!??F\$
)/b'V+\&.6(\$=./J40\$52'06'9\$a+0\&.6''9\$O9+(\$=04L4J4\$!??FD!?"E\$
R/33/33/PP = 04L4 J 4\%/-2\$5H2++0\$.++6L400\$ = 00D5649\$T4 J ' $R+L/0' $=04L4 J 4$
O'H' JL'9$!??@$
R/33/33/PP = 04L4 J 4\%/-2\$5H2++0\$.++6L400\$ = 00D5649\$T4 J ' $R+L/0' $=04L4 J 4$
O'H'JL'9$!??>$
R/33/33/PP = 04L4 J 4\%/-2\$5H2++0\$.++6L400\$=00D5649\$T4 J '\$R+L/0'\$=04L4 J 4\$f\&, '\$
!??>$
7 ./6'1\$5646'3\$U0( J P/H$\O94/./.-\$V'.6'9\$a +0\&.6''9\$V+0+941+\$5P9/.-3\$V+0+941+\$
[&0($!??d$
a + 0\&, 6' '9\%G + 9\%B > '' = , &40\% `46/+, 40\% = 620' 6/H\%Q94/, '93\%V + , G'9', H' &= 604, 64&
T'+9-/4<\[&, '\!??d\
Q9+(\$7,8'93/6(\$n+\&62\$5+HH'9\$V4JP\$Q9+(\$=04L4J4\$f\&,'\$!??d\$
R/33/33/PP = 04L4 J 4\%/-2\$5H2++0\$.++6L400\$=00D5649\$T4 J '\$R+L/0'\$=04L4 J 4\$f\&. '\$
!??d$
\% \& 99/H4, \% X 469/, 4\$; \% '0/\% a +0\&, 6' \% = P9/0\$! ??d\$
Q\&6+9\$G+9\$Q9+(\$7,8'93/6(\$=620'6/H3\$Q9+(\$=04L4J4\$!??ED!??F\$
=620'6/H\$O94/, '9\$6+9\$V2490'3\$\%', 1'93+, \$\%/-2\$5H2++0\$O9+(\$=04L4J4\$=\&-&36\$
!??#D`+8'JL'9$!??E$
46/+,40$n+&62$4,1$5P+96$)9+-94J$\%466/'3L&9-$\R/33/33/PP\$[&,'$!??!$
: 0&'-9433$5646'$T4J'3$*'S/,-6+,$X',6&Hb($[&0($!??"$
X', 6&Hb($=00$=$: 43b'6L400$V0433/H$\$; /H2 J+, 1$\$X', 6&Hb($\R49H2$!??"$
Z^n+9b\%/-2\$5H2++0\$  ] 9'360/, -$V24 J P/+, 32/P3R49H2\$!???$
I J P/9  $5646 $T4 J '3$*+, -$Y304, 1$ \ Z$n+9b$[&0($"FFF$)
= J DV4, \$Y, 6'9, 46/+, 40\$[\&1+\$Q+\&9, 4J', 6\$: \&6640+\$`'Z\$n+9b\$R4(\$"FFF\$)
I J P/9  $5646 $T4 J '3$; +H2 '36 '9$ \ Z$n +9b$ [&0($"FF@$
V = \$094Hb\$4,1\$./'01\$V24JP/+,32/P3\%:\&6640+\%`'Z\$n+9b\%[\&,'$"FF@\$]
%/-2$5H2++0$=00D5649$ ] 9'360/, -$Q+&9,4 J',6$: &G640+$`'Z$n+9b$R49H2$"FF@$
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+&/3/4,4\$R49462+,\$R'1/H40\$a+0&,6''9\$:46+,\$;+&-'\$+&/3/4,4\$[4,&49(\$!?"@\\

V = = QI \(\) ' '9\(\); '8/'Z\(\)Q94/,/, -\(\) \(\) 432/, -6+, \(\)QV\(\)[\(\)\(\)!?!#\(\) *+&/34,4\$=62'06/H\$O94/,'93\$=,,&40\$R''6/,-\$:46+,\$;+&-'\$*+&/3/4,4\$[&,'\$!?!#\$ V = = QI = HH9'1/646/+, V+, G'9', H' = 604, 64 = T'+9-/4 = UH6+L'9\$!?!! $46/+,40\$=620'6/H\$Q94/,'93\$>\#^{\$}=,\&40\$R''6/,-\$)2/041'0P2/4\$)=\$[\&,'\$!?!!\$]$ `46/+,40\$=620'6/H\$Q94/,'93\$>"36\$=,,&40\$R''6/,-\$a/96&40\$[&0(\$!?!?\$ Q2'\\$.\&,\H6/+,40\\$Y,6'-946'1\\$\`'\10/,-\\$G+9\\$)4/,\\$R4,4-'J',6\\$O'H'JL'9\\$!?!?\\$ T9436+, Q'H2, c&'\$!\$H'96/6/H46/+,\$H+&93'\$:46+,\$;+&-'\$*=\$[4,&49(\$!?!?\$]Q2'+9(\$)94H6/H'\$W\$V0/,/H40\$=PP0/H46/+,\$+0\$*'49,\$5P/,40\$R4,/P&046/+,\$AQR;\$R4, P&046/+, \$54, \$=,6+,/+\$Qo\$=&-&36\$!?"F\$46/+,40\$=620'6/H\$Q94/,'93\$>?!''=,.&40\$R''6/,-3*43\$a'-433`'84143[&,'\$!?''F\$R/33/33/PP/\$=620'6/H\$Q94/, '93\$=33+H/46/+,\$=, ,&40\$R''6/, -\$:/0+S/\$R/33/33/PP/\$[&,'\$]!?"F\$ V = = QI = HH9'1/646/+, V+, G'9', H'Q4JP4.0+9/14&UH6+L'9.?"@^ 46/+, 40\$=620'6/H\$O94/, '93\$dF!" = . . &40\$R''6/, -\$\`'Z\$U90'4, 3\$*+&/3/4, 4\$\[&, '\\$!?''\@\\$ V = = Q I = HH9' 1/646/+, V+, G'9', H' = Q I P4 = 0.0+9/14 = UH6+L'9 ? ?">46/+,40\$=620'6/H\$Q94/,'93\$d@!"=,,&40\$R''6/,-3%+&36+,\$Q'S43\$[&,'\$!?">\$

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 \begin{array}{l} {}^{\circ} = Q = \$ = 620'6/H\$Q94/,/, -\$I1\&H46+93_\$V+, 6'9', H'\&R+, 6-+J'9(\$Q'S43\&[4,\&49(\$!??B\$)] \\ {}^{\circ} = Q = \$V0/, /H40\$Y, 369\&H6+9\$I1\&H46+9\$5'J/, 49\&: 406/J+9'\&R49(04, 1&[\&,'\$!??E\$) \\ {}^{\circ} = (6/+, 40\$ = 620'6/H\$Q94/, '93\$ = 33+H/46/+, \$BB!" = , &40\$R''6/, -&: 406/J+9'&R49(04, 1&[&,'\$]??E\$ \\ {}^{\circ} = (6/+, 40\$ = 620'6/H\$Q94/, '93\$ = 33+H/46/+, \$BB!" = , &40\$R''6/, -&: 406/J+9'&R49(04, 1&[&,'\$]??E\$ \\ {}^{\circ} = (6/+, 40\$ = 620'6/H\$Q94/, '93\$ = 33+H/46/+, \$BB!" = , &40\$R''6/, -&: 406/J+9'&R49(04, 1&[&,'\$]??E\$ \\ {}^{\circ} = (6/+, 40\$ = 620'6/H\$Q94/, '93\$ = 33+H/46/+, \$BB!" = , &40\$R''6/, -&: 406/J+9'&R49(04, 1&[&,'\$]??E\$ \\ {}^{\circ} = (6/+, 40\$ = 620'6/H\$Q94/, '93\$ = 33+H/46/+, \$BB!" = , &40\%R''6/, -&: 406/J+9'&R49(04, 1&[&,'\$]??E\$ \\ {}^{\circ} = (6/+, 40\$ = 620'6/H\$Q94/, '93\$ = 33+H/46/+, \$BB!" = , &40\%R''6/, -&: 406/J+9'&R49(04, 1&[&,'\$]??E\$ \\ {}^{\circ} = (6/+, 40\$ = 620'6/H\$Q94/, '93\$ = 33+H/46/+, \$BB!" = , &40\%R''6/, -&$(6/+, 40\%R')6/, -&$(6/+, 40\%R''6/H)6/, -&$(6/+, 40\%R''6/H)6
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46/+,40\$=620 6/H\$Q94/, 93\$=33+H/46/+,\$BB =,,&40\$R'6/,-\$:406/J+9'\$R49(04,1\$ [&,'\$!??E\$

 $=04L4\ J\ 4\$=620'6/H\$Q94/, '93\$=33+H/46/+, \$5646'\$R''6/, -\$T\&06P+96\$R/33/33/PP/\$R4(\$P?2E)$

 $==)\%I;O\$^46/+,40\$V+,8',6/+,\$^*Z\$U90'4,3\$*+\&/3/4,4\$=P9/0\$!??E\$$

R/33/33/PP/\$=00/4, H'\$G+9\$%'4062\$) 2(3/H40\$I1&H46/+, \$; 'H9'46/+, \$4, 1\$O4, H'\$=, , &40\$R''6/, -\$T&0GP+96\$R/33/33/PP/\$O'H'JL'9\$!??#\$

 $^46/+,40\$=620'6/H\$Q94/,'93\$=33+H/46/+,\$BE^{!"}=,,\&40\$R''6/,-\$54/,6\$*+\&/3\$R/33+\&9/\$F_{\&,'}$!??#$$

5+&62'436\$=620'6/H\$Q94/, '93\$=33+H/46/+,\$=,,&40\$R''6/,-\$=604,64\$T'+9-/4\$R49H2\$!??#\$

R/33/33/PP/\$=620'6/H\$Q94/, '93\$=33+H/46/+,\$=, ,&40\$5646'\$R''6/, -\$[4Hb3+,\$R/33/33/PP/\$[4,&49(\$!??#\$]

R/33/33/PP/\$=00/4, H'\$G+9\$%'4062\$) 2(3/H40\$I1&H46/+, \$; 'H9'46/+, \$4, 1\$O4, H'\$=, , &40\$R''6/, -\$%466/'3L&9-\$R/33/33/PP/\$O'H'JL'9\$!??!\$

`46/+,40\$=620'6/H\$Q94/,'93_\$=33+H/46/+,\$B#*\$ =,,&40\$R''6/,-\$O40043\$Q'S43\$[&,'\$!??!\$

5+&62'436\$=620'6/H\$Q94/, '93\$=33+H/46/+,\$=,,&40\$R''6/,-\$=604,64\$T'+9-/4\$R49H2\$!??!\$

: ;) Q\$*4b'\$; '24L/0/646/+,\$V',6'93\$5P+963\$R'1/H/,'\$5'J/,49\$:46+,\$;+&-'\$*+&/3/4,4\$R49H2\$!??!\$

 $^46/+,40\$=620'6/H\$Q94/,'93_\$=33+H/46/+,\$B!\%\$=,,\&40\$R''6/,-\$*+3\$=,-'0'3\$V40/G+9,/4\$[\&,'\$!??"\$$

: '/, -\$4,\$IGG'H6/8'\$V0/,/H40\$I1&H46+9&R&909''3L+9+&Q',,'33''&R4(\$!??''\$

5+&62'436\$=620'6/H\$Q94/, '93\$=33+H/46/+,\$=,,&40\$R''6/,-\$=604,64\$T'+9-/4\$R49H2\$!??"\$

= , ,&40\\$X',6&\Hb(\\$5P+963\\$R'\1/\H/,'\\$5(\JP+3/\&J\\\$*'\S/,-6+,\\\$X',6\\Hb(\\\$`+8'\JL'\9\\!???\\

7 ,/8 '93/6(\$46\$: &6640+\$5P+963\$ R '1/H/, '\$5 (J P+3/& J $\$: &6640+ $\$ 'Z\$n+9b \UH6+L '9\$ "FFF\$

R++10'\$

]/,1+Z3\$o)\$+P'946/,-\$3(36'J\$

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R/H9+3+G6] +91

R/H9+3+G6\$)+Z'9\$)+/,6\$

R/H9+3+G6\$ I SH '0\$

^{*/}H',3'1\$=620'6/H\$Q94/,'9\$A1!??EB#C\$*+&/3/4,4\$!?"BDP9'3',6\$

^{`)} Y\$1">!?dE@@d@\$

^{*+&}amp;/3/4, 4\$=620'6/H\$Q94/, '93\$=33+H/46/+, \$!?"BDP9'3', 6\$