```
!"#$%&'()*+(, +-. /-0#1'(*)(2-/+*1/*. *3-/'((
! " # $ %&'('%)*++%&'&,%
!
!"#$%&'$(%)*"+)'("$*'$),"-(%. *$,(")
!"#$%&'$(%)!"#$!"%#&%!'())%*!
!
+ , %&-.!/%#&%$0())%* 1 2(-(#%/($3/4!
```

```
132&)%)&(*9!@&--!O3!-3/!OC!)3%2=&*:!%99&9)%*)9!%*/!@&--!&*2-4/3.!%//&)&(*%-!F#%2)&23!H439)&(*9!:O39)!
@%C!)(!-3%#*>6!/&92499&(*!(6!)(F&29!2(B3#3/!&*!2-%99$!T!#32&)%)&(*!&9!%!:#3%)!(FF(#)4*&)C!)(!%9D!
%//&)&(*%-!H439)&(*9!%*/!:3)!2-%#&6&2%)&(*9$!"&663#3*)!)=(4:=)96!H439)&(*9!%*/!(F&*&(*9!%#3!B%-4%0-3$!
#32&)%)&(*9!@&--!(22%9&(*%--C!=%B3!3<)#%!2#3/&)!(FF(#)4*&)&39!%*/!@&--!=%B3!@33D-C!:#%/3/!H4&JJ39$!
M=3!6\&\#9)!@33D!(6!2-\%99!)=3!\#32\&)\%)\&(*!@\&--![5M!,33)\&!
?*!)=3!F%9)!93,39)3#9!?!@(4-/!*()!/(!#32\)%\&(*!H4\JJ39!\%*/!#32\)\%\&(*!\%))3*/\%*23!@\%9!B3#C!-(@G!
@=\&-3!3<\%, !:\#\%/39!@3\#3!*()!:\#3\%)$!?!\%, !, \%D\&*: !\%))3*/%*23!(6!#32&)%)&(*9!%!F%#)!(6!)=3!:#%/3!032%493!
?!)=&*D!&)!@&--!&*23*)&B&J3!C(4!)(!F#%2)&23!, (#3!H439)&(*9!%*/!=3*23!-3%#*!, (#3!%*/!=3*23!/(!O3))3#!
&*!)=&9!2-%99$!X(4#!9422399!,%))3#9!)(!,3$!]32&)%)&(*!H4&JJ39!@&--!O3!Y^!(6!)=3!:#%/3$!
K(\&, '7'''(\$, \%0'(E0\%, \$20, @/##0A, \%0'/\$7\$/('', \%0; 7\%A90##, (., \$20, \%07#('', <2+, +(\&, @/##0A, /\$, I(''9+, \%0, `\$))))))
OB'OC$/("H, %09/;/(&#, %07#("#J?, 1 (<0E0\%H, +(&, '7", @/##, L, \%0'\$7$/("#, C0\%, #0@0#\$0\%, </$2(&\$, 7"+,
CO''79\$+,\$(,+(\&\%,;\%7AO?,
6 %*+,"4)
X(4#!: \#\%/3!@\&--!2(*9\&9)!(6.!)
07 ^!TB3#%:3!V#3N-32)4#3!%99&:*, 3*)!:#%/3!;0()=!B&/3(!%*/!H439)&(*9>!
OY ^!TB3#\% : 3!R(.3@(#D! #%/3!
Y ^! 132&)%)&(*! `4&JJ39!
P7 ^! a !/)3#, !+<\%, !0!
P7 ^! a  /)3#, !+<\%, !P!
AY^!E&*%-!+<%,!
b!4F!)(!0 ^ !6#( ,!)=3!&Q-&2D3#!
!"#$\&'()*#+,(
cA^!\*/!\0(B3!2(##39F(*/9!)(!T6!c7\)cP^!2(##39F(*/9!)(!T\)d!ef\\ec^!2(##39F(*/9!)(!'\)b6!eA\\eg^!
&9! ' G!e7NeP ^ !&9! ' Nd! f fNfc ^ !2(##39F(*/9!)(!QbG! fANfg ^ !&9!QG! f7NfP!&9!QNd!g7Ngc ^ !2(##39F(*/9!)(!
"d!03-(@!g7!2(##39F(*/9!)(!E$!
/3#"#*5)*6,*", (6+567?!M=&9!#4-3!=(-/9!#3:%#/-399!(6!=(@!2-(93!C(4!%#3!)(!%!:#%/3!24)(66$!E(#!
3<%, F-36!ec$cc!\\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\delta\)!\(\de
-./"#(0",$\(\)(
M(!2(, F3*9\%)3!6(#1)=3!6\%2)!)=3#3!\&9!*(!#(4*/\&*:!?!@\&--!(22\%9\&(*\%--C!(663#13<)#\%!2#3/\&)!%2)\&B\&)&39\$!
M = (93!\% # 3!0 (*49!F(\&*)9!\%*/!) = 3#3!\&9!*(!@%C!)(!#32(B3#1) = 3, !\&6!C(4!, \&99!) = 3, \S!!
- .#12(
+<\%, 9! @\&--! 2(*9\&9)! (6!, 4-)\&F-3! 2=(&23! H439)\&(*9\$! M=3! H439)\&(*9! @\&--! O3! O\$93/! (*!)=3!, \%)3\$\%\$-!
2(B3#3/!/4#k*:!-32)4#39\$! "4#k*:!, (9)! (6!)=3!2-\%9939!9(,3!)k, 3!@k--!03!/3B()3/!)(!F#%2)k2k*:!
, 4-)\&F-3!2=(\&23!H439)\&(*9!9\&,\&-\%#!)(!)=(93!)=\%)!@\&--!\%FF3\%#!(*!)=3!3<\%,9\$!!
?6!C(4!, &99!%*!3<%, !@&)=(4)!A('&@0''$0A,0B'&#0A,78#0'''06!)=3!:#%/3!6(#!)=%)!3<%, !@&--!03!J3#($!
?*!2%93!(6!%*!3<2493/!%093*23!6(#!)=3!, &/)3#, !3<%, G!)=3!@3&:=)!(6!)=3!, &/)3#, !@&--!03!9=&6)3/!)(!
```

## ZM+V!A.!+a T?W!X5k]!?[ZM]kQM5]!

?6!TEM+]!C(4!2(\*)%2)!)32=!94FF(#)!)=3!&9943!&9!\*()!#39(-B3/G!F-3%93!3, %&-!, 3\$! i =3\*!/(&\*:!9(6!C(4!a kZM!F#(B&/3!)=3!QTZ+![ka'+]!6#(,!C(4#!F=(\*3!2%--!(#!3, %&-!@&)=!)32=!94FF(#)\$!?!@&--!\*()!03!%0-3!)(!=3-F!C(4!@&)=(4)!)=3!2%93!\*4,03#\$!

## 9, #, "4); (%) + &0) \$() \$0 "2", "\*5), #&0#); \$2 < "2,0=0

 $\begin{aligned} &\text{M=3\#3! \&9!*(!@\%C!)(!\#32(B3\#!\%*!\%99\&:*,3*)!\&6!C(4!,\&993/!\&)!/43!)(!)32=*\&2\%-!\&99439\$!V-3\%93!/(!\%99\&:*,3*)9!\&*!\%/B\%*23!)(!:\&B3!C(4\#93-6!3*(4:=!)\&,3!)(!\#39(-B3!)32=*\&2\%-!\&99439!\&6!)=3C!\%FF3\%\#\$! \\ &\text{M=3\#3!\%\#3!877!9})4/3*)9!\&*!)=3!2-\%996!\&)!\&9!*()!F(99\&0-3!)(!\%/\#399!)=3!,\&993/!\%99\&:*,3*)9!(*!\%!2\%93!) \\ &\text{OC!2\%93!0\%9\&9!032\%493!})=3*\&)\&9!B3\#C!=\%\#/!)(!03!6\%\&\#\\%*/!)\#3\%)!3B3\#C(*3!)=3!9\%,3!@\%C!\&*!)=&9!9\&)4\%\&(*\$!)=&9!9\&)4\%\&(*\$!)=&9!9\&)4\%\&(*\$!)=&9!9\&)4\%\&(*\$!)=&9!9\&)4\%\&(*\$!)=&9!9\&)4\%\&(*\$!)=&9!9\&)4\%\&(*\$!)=&9!9\&)4\%&(*\$!)=&9!9\&3!\%&(*\$!)=&9!9\&3!\%&(*\$!)=&9!9\&3!\%&(*\$!)=&9!9\&3!\%&(*\$!)=&9!9\&3!\%&(*\$!)=&9!9\&3!\%&(*\$$ 

 $\begin{aligned} &\text{M=}3!493!(6!\%\#)\&6\&2\&\%-!\&*)3--\&:3*23!\&*2-4/\&*:6!04)!*()!-\&,\&)3/!)(6!Q=\%)\_VM6! "\%-N+!P6!3)2\%!\%3! \\ &\text{F\#}(=\&0\&)3/!6(\#!)=\&9!2(4\#93\$!M=\&9!,3\%*9!)=\%)!9)4/3*)9!\%\#3!*()!\%--(@3/!)(!493!\%\#)\&6\&2\&\%-!\&*)3--\&:3*23! \\ &\text{O}(!2(,F-3)3!\%9\&:*,3*)9!(\#!F\%99!(66!@(\#D!\%9!)=3\&\#!(@*\$!R(@3B3\#6!\%\#)\&6\&2\&\%-!\&*)3--\&:3*23!, %C!(663\#!9)4/3*)9!\%!H4\&2D!@%C!)(!=3-F!(\#:\%*\&J3!\&*6(\#,\%)\&(*!@=3*!9)4/C&*:!\%*/!F\#3F\%\#\&*:!6(\#!H4\&JJ39!(\#!3<\%,9\$!M=3!493!(6!T?!)(!/3B3-(F!9)4/C!F-\%*9!(\pmu!)((-9!\&9!\%--(@3/\$!V-3\%93!D33F!\&*!,\&*/!)=\mmu!)=3! \\ &\text{\&*}6(\#,\%)\&(*!\#323\&B3/!6\#(,!T?!)3<)!:3*3\#\%)(\#9!\&9!*()!\%-@\%C9!\%224\#\%)3!(\#!2(,F-3)3!\makediag*/!2(4-/!2\#3\makediag*)3! \\ &\text{\&*}6(\#,\%)\&(*!\#323\&B3/!6\#(,!T?!)3<)!:3*3\#\%)(\#9!\&9!*()!\%-@\%C9!\%224\#\%)3!(\#!2(,F-3)3!\makediag*/!2(4-/!2\#3\makediag*)3! \\ &\text{\&*}6(\#,\%)\&(*!(*!2(4\#93!2(*23F)9\$!E(\#!)=\&9!\#3\%9(*96!?!=\&:=-C!/\&92(4\#\%:3!)=3!493!(6!T?!)((-9!)(!9))4/C!2(*23F)9!\&*!)=\&9!2(4\#93\$!!) \end{aligned}$ 

?6!C(4!=%B3!%\*C!H439)&(\*9!%O(4)!)=3!T?!F(-&2C!&\*!)=&9!2(4#936!F-3%93!633-!6#33!)(!)%-D!)(!, 3!%6)3#! 2-%99!(#!9)(F!OC!, C!(66&23!=(4#95!!

## B("(%)3(+0)