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9+(,+0.6]9"590"59\$+,(\$9+("*/>\\$76<+(>D(<>6#"#\$+6<?(B+\\$C++6(7(/>##"B0+(<>6@+6\\$">6(<\\" * +#($757"6\#\$(9=*76"\$?(76,(\$9+(S>*+(K\$7\$=\$+\&(_>\%(\#+@+\%70(,+0+57\$">6\#\$(\$97\$(\%+D+\%+6<+(C7\#(G)^{2})^{2})))))))$ @"+C+,(7#(7(*+76#(\$>(7@>",(\$9+(D\ndot 75*+6\ndot 75">6(>D("6\ndot +\ndot 67)">670(07 C\ndot (+6976<+(0+570(+, (- &(K+@+%70(,+0+57\$">6#(,",(6>\$(#=//>%\$(7(%+D+%+6<+(\$>(\$9+(S>*+(K\$7\$=\$+A(7#("\$(,",(6>\$(+6P>?(=6"@+\#70(7,9+\+6<+(76,(\$9+\+D>\+(<>=0,("*/7"\(=6"@+\\#70(7<<+/\\$76<+(>D(7(D=\$=%+(<>6@+6\$">6&(E\$(C7#(#\$%+##+,(B?(#+@+%70(,+0+57\$">6#(\$97\$(D=%\$9+%(,"#<=##">6#(%+57%, %5(\$9+(%6<0=#%6)(\$9+(%+D+%+6<+(C+%+(6+<+#%%%6)(.<<>%,%5(\$)(7(@*+C)(#=<9(.)))<>6<+\%6"65(\\$9+(\,+D"6"\\$">6(>D(<\\"*+\#(757"6\#\)(9=*76"\\$?(7\(\\$9+(\\"*+(>D(\\$9+(6+5>\\"7\)">6(>D(\$9+(\$> * +(K\$7\$=\$+(C+%+(%+<700+, &(4\$9+%(,+0+57\$">6#(%+<700+, (\$9+(C>%U(>D(\$9+(E6\$+\%67\$">670() 7C(J > * * "##">6(76, (\$9+(+1\$+6#"@+(6+5>\$"7\$">6#(\$97\$(97, (0+, (\$>(\$9+(7. > 5 > 6 > 0 9 + (S) * + (K\$7\$ = 5 + (E\$(C7#(/%) / 5 + (...) 97\$(\$9 + (...) 7 % 7 / 9 (<=0., (+1/% + ##0?(...) 1 + (...) 1%+D+%(\$>(\$97\$(9"#\$>%?&(.(6=*B+%(>D(,+0+57\$">6#(+*/97#"V+,(\$97\$(\$9+(,%7D\$(7%\$"<0+#(<>6<+%6+, (700(K\$7\$+#&(C9+\$9+%(>%(6>\$(\$9+?(C+%+(/7%\$"+#(\$>(\$9+(S>*+(K\$7\$=\$+&(E\$(C7#(#=55+#\$+,(\$97\$("\$(*"59\$(70#>(B+(7//%>/%"7\$+(\$>(%+D+%(\$>(\$9+(C>%U(>D(/%+@">=#(\$%"B=670#\) "6<0=, "65(\$9+([`\$6B+\$5(76,(;>U?>(\$\$"B=670#&(.(6=*B+\$(>D(,+0+57\$">6#(+*/97#"V+,(\$97\$(B+<> * "65(7(/7%\$?(\$>(7(<>6@+6\$">6(<%" * +#(757"6#\$(9= * 76"\$?(C>=0,(6>\$(%+)="%+(6>\$(/7%\$"+#(\$>(\$9+(\$>*+(K\$7\$=\$+&(E\$(\$C7#(/%>/>#+,(\$97\$(\$9+(\$C>%,(W<>6#",+%"65X(B+(

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--& \"\\$9(\%+\#/+<\\$(\\$>(\7\%75\%7/9(:(>D(\\$9+(\%+7*B0+\A(\#+\@+\%70(,+0+57\\$">6\#(+I\%+\#\+,(#=//>%\$(D>%(\$9+(+*/97#"#(>6(\$9+(/\%"*7\%?(\%+\#/>6#"B"0"\\$?(>D(K\\$7\\$+\#(\\$>(/\%+\@+6\\$(76.(/=6"\#9(<%" * +#(757"6#\$(9= * 76"\$?\(E\)\$(C7#(#=55+#\)\$+,\(\)\$97\(\\$9+(/7\)\75\\779(<>=0,\(+I/\)\+##(\(\)\$97\(\)\/>"6\(\) *>%+(<0+7%0?k(K+@+%70(,+0+57\$">6#(9"590"59\$+,(\$9+("*/>%\$76<+(>D(\$9+(/%"6<"/0+(>D(<>* /0+ * +6\$7%"\$?\(10 76, (76 = * B+\(10 50), +0+57\$)">6#(#=55+#\$+, ("\$#("6<0=#">6("6(\$9+(7%75%7/9%; 9+(@"+C(C7#(+I/%+##+,(B?(7(6=*B+%(>0(,+0+57\$">6#(\$97%(K\$7\$+#(97,(\$9+(/%+%>57\$"@+(\$>(+I+%~"#+(\$9+"%(P=%"#, "<\$">6(>@+%(<%"*+#(757"6#\$(9=*76"\$?(<>**"\$\$+,(>6(\$9+%(\$+%%)>B0"57\$">6(\$>(+I+%<"#+(\$9+"%(<\" * "670(P=\"#, "<\$">6(>@+\(#=<9(<\\" * +#\(K+@+\)70(, +0+57\)">6#(<>6#", +%+, (\$97\$(\$9+(.=\$?(\$>(+I+%c"#+(<"*"670(P="#,"<\$">6(#9>=0, (B+(0"*"\$+, (\$>(<7#+#($C9+\%+(\$9+\%+(C7\#(7(<0+7\%(6+I=\#(B+\$C++6(\$9+(D>\%=*(K\$7\$+(76,(\$9+(\%)^**+\&(E\$(C7\#(\#=B*"\$\$+,(E\$(C7\#(B+B)^*)^*)^*))))))))))$ \$97\$(\$9+(/7%75%7/9(,",(6>\$(%+]="%+(K\$7\$+#(\$>(+I+%<"#+(=6"@+%#70(P=%"#,"<\$">>6&(;9+(6++,(D>%(K\$7\$+#(\$>(97@+(\$9+(6+<+##7%?(0+5"#07\$"@+\(7, *"6"#\$\%7\$"@+(76,(P=,"<"70(\$>>0#(\$>(D=0D"0(\$9+"%(%+#/>6#"B"0"\$?(C7#(70#>(+*/97#"V+, \("6<0=, "65(\\$>(+6976<+("6\\$+\%67\\$">670(*7,+(\$>(%+/07<+(\$9+(\$+%*(W,=\$?X(C"\$9(W%+#/>6#"B"0"\$?X(76,(\$>(<07\"D?("6(\$9+(/7\%75\%7/9($97\%(/\%">\%"\%?(#9>=0, (B+(5"@+6($>($+\\%"$>\\"70(P=\\"#, "<\">6\\((($

%59\$#(>D(@"<\$" * #(76,(C"\$6+##+#&(K+@+%70(,+0+57\$">6#(+I/%+##+,("6\$+%+#\$("6(+I/76,"65(\$9+(\$+I\$(\$>(\$+D0+<\$(7(#=\@"@>\^<+6\\+,(7//\>7<9\(;9+("*/>\\\$76<+(>D(<>6#"#\\$+6<?(@"<\$" * #(C7#(+ * /97#"V + ,&(.(6 = *B + %(>D(, +0 + 57\$">6#(# = 55 + #\$ + ,("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + % + 6 < + #(\$ > ("6 < 0 = , "65(% + D + 6 < + #(\$ + 6 < 0 = , "65(% + D + 6 < 0 = , "65(% + D + 6 < 0 =))))))))"6<0=, +(*7)+"70(76,(*)70(77,775+#(76,(+1)+6,(\$)(#=B#+1=+6)(5+6+#(7)70)=6#(7)9(*) \$9+(<>6#+]=+6<+#(>D(\$9>#+(<%" * +#&(E\$(C7#(#=55+#\$+, (\$9+("6<0=#">6(>D(\%+D+\%+6<+#(\\$)<\\$9+("6<0=#") %"59\$(\$>(\%+,\%+##\d("6<0=,"65(*7\$+\%"70(76,(*>\%70(,7*75+#\d(76,(\\$9+(\%"59\\$(\\$)<(\\$\%)=\\$9\d(\\$\)(C7#(70# $(\#=55+\#\$+, (\$97\$(\%+/7\%7\$)>6\#(\#9>=0, (+1\$+6, (\$>(\#=B\#+)=+6\$(5+6+\%7\$)>6\#(0)^{\circ}(65)(C"\$9(65))$ \$9+(<>6#+]=+6<+#(>D(\$9>#+(<\"*+#&(E\$(C7#(#\$7\$+, (\$97\$(\$9+(\$+\"*#(W#=\"@"@>\^<+6\\+, X(76, (W@"<\$" * ^<+6\$%+, X(7//%>7<9+#(76, (\%"59\(\\$)=\\$9X(\07<U+, (<07\"\\\$\2\E\(\C7#(/\%>/>\#+, (\\$)< <0.7%"D?(\$9+(#<>/+(>D(\$9+(\$+%*(W>\$9+%#X(76,(\$>(7,(%+D+%+6<+(\$>(\$9+(<>6<+/*)(>D(9=*76(,"56"\$?&(\"\$9(%+#/+<\$(\$>(\$>+(%"59\$#(>D(700+5+,(>DD+6,+%#4("\$(C7#(#=55+#\$+,(\$97\$(\$9>#+(#9>=0, (B+(=6,+%#\$>>,("6(\$9+(0"59\$(>D(\$9+(E6\$+%67\$">670(J>@+676\$(>6(J"@"0(76,(Q>0"\$"<70(J>@+676\$(>6(J"@"0(76,(Q>0"\$"<70(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J>@+676\$">670(J)S"59\$#& (E\$(C7#(/%>/>#+, (\$97\$(\$9>#+(%"59\$#(C>=0, (B+(B+\$\$+\%(7, ,\%+##+, ("6(7(#+/7\%7\\$+(7%75%7 9&(E\$(C7#(+ * /97#"V+, (\$97\$(\$9+("6<0=#"@+(67\$=\%+(>D(\$9+(7<<>=6\%7B"0"\\$?(/\%><+##()=0 $C7\#(D=6.7*+6\$70(\$)+6\#=\$+(\$\#(+DD+<\$^{\circ}@+6+\#\#(76.(\#\$\%+65\$9+6(\$\#(-\$\#-B^{\circ})\$?\&(-\$\%+6)))))$

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70#>(#\$7\$+,(\$97\$(\$9+(\$+%*(W<"@"0"76(/>/=07\$">6X(07<U+,(<07%"\$?(76,(>=59\$(\$>(B+(,"#<=##+,(D=%\$9+%)(((

"6(, %70\$ (7%) < 0 + (1 % (7# (C+00) (7# (D>%) (>\$+6\$)"70 (D=\$=%+(, +@+0>/*+6\$# ("6("6\$+%67\$">670 (07C (\$9%) >= 59 (>\$9+% (0+570 ("6#)% = *+6\$# & ((E6(\$97\$ (<>66+<\$">6A(\$9+(<>**+6\$7%?(\$)<, %70\$ (7%)"<0+(1 (C7#(%+<700+ , & (C9"<9+1/07"6+ , & (\$9+(#<>/+(>0)(/7%75%7/9) (E&((, (+B7\$+(+6#=+ , (%+57% , "65(\$9+(6>%*7\$"0+(970=+(>0)(\$9+(<>**+6\$7%"+#(7,>/\$+, (B?(\$9+(J>**"##">6&((K>*+(+0+57\$">64)(9>C+@+%A(+1/%)+##+, (7(/%+D+%+6<+(D>%(>*"\$\$"65(\$9+(<07=#+(D%)*"(\$9+(V)+1/%)+ (V)+1/3 (0)(9+(V)+1/3 (0)(9+(V)+1

 $FY\& \quad .(6=*B+\%(>D(\#=55+\#\$'')>6\#(C+\%+(*7,+(D>\%(>\$9+\%(=6,+\%)?"65(7<\$\#(\$)>(B+(/>\$+6\$''70)?(7,+,+(\$)<(,\%70\$(7\%\$''<0+(1\&((;9)+\#+("6<0=,+,\&(7*>65\#\$(>\$9+\%\#\&(W\#\$7\%@7\$''>6(>D(\$9+(<"@"0"76(/>/=07\$''>6X\&(W+<><",+X\&(WD>\%<+,(*7\\%"75+X\&(W=6"07\$+\%70(<>+\%''@+(*+7\#=\%+\#(757"6\#\$(<<"@"0"76\#X\&(W\%)+\%)>\%($\%+07\$+,($7<\\%\%"75+X&(W=6"07\$+\%'')(C+7/>6\#X\&(W<)>6"70"\#*X\&(W+I/0>"\7">6(D(67\$+\%70(\%+7)>6\)(W+1/0>"\$7$">6() (C+7/>6\#X\&(W<)>6"70"\#*X\&(W+I/0>"\7)">6() (57<\)(\%''+8)=\%(1,0)=\%''(1,0)=\%'')(1,0)=\%''(1,0)=\$

 $FM\& \quad K+@+\%70(\ ,+0+57\$''>6\#(\ \#=55+\#\$+\ ,(\ "6<>\%/>\%7\$''65(\ 5+6\ ,+\%^B7\#+\ ,(\ `\%''*+\#\&)(\ \#=<9(\ 7\#(\ W5+6\ ,+\%(\ 7/7\%\$9+''\ ,X\&)(\ 76\ ,(\ W\%+/\%>\ ,=<\$''@+(\ @''>0+6<+X\&)(\ "6<0=\ ,"65(\ D>\%<+\ ,(\ \#\$+\%'')"V7\$''>6\&(\ .(\ \#=55+\#\$''>6(\ C7\#(\ 70\#)<\ *\ 7\ ,+(\ \$>(\ 7\ ,>/\$(\ 7(\ \%)>\##^<=\$\$''65(\ 5+6\ ,+\%(\ ,"*+6\#''>6(\ "6(\ 7(\ D=\$+)+(\ <>6@+6\$''>6\&((\ ;9+("*/>\%\$76<+(>D(\#/+<"D?"65(D>\%*\#(>D(\#+1=70(76\ ,(5+6\ ,+\%^B7\#+\ ,(@''>0+6<+($

 $\%+D0+<\$+\ , (\ <=\#\$)*7\%?(\ "6\$+\%67\$">670(\ 07C(\ 76\ , (\ C7\#(\ \%+<>56"V+\ , (\ B?(\ "6\$+\%67\$">670(\ P=\%"\#/\%=\ ,+6<+\&((\ .\ \$(\$9+(\#7*+(\$"*+\&("\$'+\&("5(C7\#(]=+\#\$">6+\ , (C9+\$9+\%(\$9+(]=70"D"+\%(WC9"<9(7\%+(8"*+\#(=6\ ,+\%("6\$+\%67\$">670(07CX(C7\#(6++\ ,+\ ,\&("6\$+\%67\$">670(07CX(C7\#(6++\ ,+\ ,\&("6\$+\%67\$")>670(07CX(C7\#(6++\ ,+\ ,\&("6\$+\%67\$")>670(07CX(C7\#(6++\ ,+\ ,\&("6\$+\%67\$")>670(07CX(C7\#(6++)))>670(07CX(C7\#(6++)))>670(07CX(C7\#(6++)))>670(07CX(C7\#(6++)))>670(07CX(C7\#(6++)))>670(07CX(C7\#(6++)))>670(07CX(C7\#(6++)))>670(07CX(C7\#(6++)))>670(07CX(C$

31 & S+57 %, "65 (\$9+(>B0"57\$">6(>D(/%+@+6\$">6 & (#+@+%70(,+0+57\$">6#(+*/97#"V+,(\$97\$(+2.5%)+2.5%)))))))

/ \$ + @ + 6\$ " > 6 ("6(", \$7")0(""6 < + (\$9 + ("6 < 0 = #" > 6 (> D(\$9 + (C > %", (W7 / % > / %"7\$ + X (/ % > @"", + , (# = DD" < "+6\$ (D0 + I"B")0"\$?(\$) < (K\$7\$ + #&(". <<>%", "65(\$) < (76 > \$9 + %"(@" + C&(\$9 + (C7?#(76", (* +76#(>D(/% + @ +6\$"65("6\$ + %67\$" > 670(" < "" * +#"(D + 00("C"\$9"6("\$9 + (67\$" > 670("P = "" #", "<\$">>6(">D("K\$7\$ + #&("76", (B% > 7", (\$ + % * "6 > 0 > 5?(# = < 9(7#(W > %(>\$9 + %(7 / / % > / %"7\$ + (/ % + @ +6\$"@ + (* +7# = % + #X(" * / > # + , (+ I < +##"@ + (>B0"57\$" > 6 # (= / > 6(\$9 + * &((* +74#(% + (* +74#(* +7

 $\label{eq:mgamma} \text{MG\&} \quad ; 9+(@"+C(\ C7\#(\ +\ I\ /\ \% +\#\#+\ , (\ \$97\$(\ /+670\$"+\#(\ \#9>=0\ , (\ B+(\ 7\ ,\ ,\ \% +\#\#+\ , (\ "6(\ 76(\ >BP+<\$"@+(\ B+(\ 7\ ,\ ,\ \% +\#\#+\ , (\ "6(\ 76(\ >BP+<\$"@+(\ B+(\ 7\ ,\ ,\ \% +\#\#+\ , (\ "6(\ 76(\ >BP+<\$"@+(\ B+(\ 7\ ,\ ,\ \% +\#\#+\ , (\ "6(\ 76(\ >BP+<\$"@+(\ B+(\ 7\ ,\ ,\ \% +\#\#+\ , (\ "6(\ 76(\ >BP+<\$"@+(\ B+(\ 7\ ,\ ,\ \% +\#\#+\ , (\ "6(\ 76(\ >BP+<\$"@+(\ B+(\ 7\ ,\ ,\ \% +\#\#+\ , (\ "6(\ 76(\ >BP+<\$"@+(\ B+(\ 7\ ,\ ,\ \% +\#\#+\ , (\ "6(\ 76(\ >BP+<\$"@+(\ B+(\ 7\ ,\ ,\ \% +\#\#+\ , (\ "6(\ 76(\ >BP+<\$"@+(\ B+(\ 7\ ,\ ,\ \% +\#\#+\ , (\ "6(\ 76(\ >BP+<\$"@+(\ B+(\ 7\ ,\ ,\ \% +\#\#+\ , (\ "6(\ 76(\ >BP+<\$"@+(\ B+(\ 7)(\ B+(\ 1)(\ B+(\ 1)(\ B+(\ 1)(\ B$

! ! < > 6@ + 6\$" > 6& (E6(\$9 + (7B# + 6 < + (>D(7(< > 6@ + 6\$" > 6& (K\$7\$ + #(< > =), (\$9 + > % + \$" < 700?(*7U + (B% > 7, (P=%"#, "<\$" > 670(< 07" * #(>@ + %(< %" * + #(757" 6#\$(9 = *76"\$?(C"\$9(7(@" + C(\$ > (+I + % < "#" 65(# = < 9(P=%" #, "<\$" > 6& (9 + () > #"B"0"\$?(>D(# = < 9(7(#"\$ = 7\$" > 6(P=#\$"D" +, (\$9 + ("6 < % / > % / > % 7\$" > 6(>D(=6"D > % * (#\$76, 7%, #(76, (/% > < +, =% 70(#7D + 5 = 7%, #(6(7(D = \$ + (< > 6@ + 6\$" > 6& (9 + 6\$" > 6&

- $\begin{array}{l} : -\& \quad ; 9+(@"+C(C7\#(+I/\%+\#\#+,(\$97\$(\$9+(/\%>@"\#">6(<>=0,(B+(\%+D>\%*=07\$+,("6(>\%,+\%(\$)<+("7U+("\$(*>\%+(7//\%>/\%"7\$+(D>\%(<\%"*"670(P=\#\$"<+(\#?\#\$+*\#("6(<>**>6(07C(K\$7\$+\#\&(C9"<9(7//0"+,(\$9+(7,@+\\%770(7//\%>7<9\&(E\$(C7\#(/\%>/>\#+,(\$97\$(\$9+(\$+I\$(B+(<>6\#",+\%+,(D=\\$9+\%)<+("6(\$9+(0"59\$(>D(>\$9+\%(>B0"57\$">6\#(K\$7\$+\#(*"59\$(97@+(=6,+\%(@7\%">=\#("6\$+\%67\$">670(75\%++*+6\$\#\&(E6(/7\%\$"<=07\%\&(\#+1/\%+\#+,(\$9+(@"+C(\$97\$(\$9+(/\%>@"\#">6(\#9>=0,(6>\$(7DD+<\$(\$9+(7//0"<7\$">56(>D(\$9+(\%-0"\$0))))))))))))))))))$

- : Y& \ "\$9(%+57%,(\$>(/7%75%7/9(F(>D(,%7D\$(7%\$"<0+(H&("\$(C7#(]=+#\$">6+,(C9+\$9+%(\$9+(C>%,#(W7#(7//%>/%"7\$+X(C+%+(D"\$\$"65&(7#(\$9+?(7//+7%+,(\$>(5"@+(+I<+##"@+(,"#<%+\$">6(\$>(

#/+<"D"<700?(/%+@+6\$(K\$7\$+#(C"\$9>=\$(#\$%>65(P=%"#,"<\$">670(0"6U#(\$>(/%>#+<=\$+(\$9+(700+5>DD+6,+%#&(

:G& \"\$9(%+#/+<\$(\$>(

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-26 & . (/% >/ #70(C7#(* 7 , +(\$ >("65%) > , =<+(7(% + D + % + 6 < +(\$ >(W7(K\$7\$ + (> D(67\$" > 670"\$?(> D(\$9 + (7 < + # + X("6(/7%75%7/9(-1(> D(\$9 + (%70\$" < 0 + (7 6 , (70# >(\$ >(\$ > (7 U + (-6\$ > (-6 + (-4

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- \$+I\$(C7#(C7%%76\$+, \$(7#(C7#(*>%+(<07%)\$?(>6(\$9+(%+0+@76\$(<>**+6\$7%"+#&(E6(/7%\$"<=07%)4(D=%\$9+%(,"#<=##">6(C7#(<>6#", +%+, (\$>(B+(6++, +, (%+57%, "65(\$9+(W, +#"567\$">6(>D(7(<+6\$%70(7=\$9+(W, +#"567\$")+6)(Y))4(S+(Y
- $-11\& _>\% (\#>*+(,+0+57\$)^*>6\#\&(\$9+(766+I(<>=0,(\#+\%0+(74(70+570(B7\#''\#(D>\%(P=,"<"70(<>>/+\%7\$)^*>6(B+\$C++6(K\$7\$)^*+\#(\$97\$(C+\%+(6>\$(B)=6,(B?(7(\$\%+7\$?(>6(*=\$=70(0+570(7\##''\$76<+\&(K+@+\%70(,+0+57\$)^*>6\#(C+0<>*+,(\$9+(D0+I''B0+(7//\%)^*>7<9(\$7U+6("6(\$9+(766+I(\$)<(7\#+\#(C9+\%+(C9+\%+(C7\%)^*)^*)^*)^*+(C7\#(B)=6,(B?(+I''\#\$)^*')^*+(B)=6,(B?(+I''\#\$)^*+(B)=6,(B?(+I''\#\$)^*+(B)=6,(B?(+I'')^*)^*+(B)=6,(B?(+I'')^*+(B)=6,(B?(+I'')^*)^*+(B)=6,(B$
- -1 F& J > 6 < + %6"65 (/7%75%7/9(1 & (7(6 = *B + %(>D(, +0 + 57\$">6 # (>B # + %e) + , (\$97\$(\$9 + (, + #"567\$">6(>D(7(< + 6%70(7 = \$9 > %"\$?(C > = 0, (#% + 65\$9 + 6(\$9 + (+DD + <\$"e) + (<> * * = 6"<7\$">6(B + \$C + + 6(K\$7\$ + #(700 > C(D > %(* > % + (+DD + <\$"e) + (<> * * + 76 # (S) + (+DD + < %) > 6(* * + 76 # (S) + (+DD + (+DD + (S) + (+DD +
- $-13\& E6(/7\%75\%7/9(-M\&("\$(C7\#(\#=55+\#\$+,(\$9+(/9\%7\#+(W"D("\$("\#(6)-\$(/>\#"B0+(>\%(,+\#"87B0+(D>\%(\$9+("6,"@",=70("6(]=+\#\$">6(\$>(7//+7\%("6(/+\$+>6("6(\$+\\$)\$)>\%(\$9+("6,"\@",=70("6(]=+\#\$">6(\$>(7//+7\%("6(/+\$+>6("6(\$+\\$)\$)>\%(\$9+(=\$+\))\$)\$?=6,+\%(\$9+(P=\\"\#,"<\$">>6(>D(\$9+(\\$+)=+\$\"\$)=+\$\"\$65(K\$7\$+X(B+(,+0+\$+,\(A)<6(\$9+(5\\$>=6,(\$97\$(\$9+(=\$+(>)U(@",+>(0"GU\#(C7\#(76(++))))))))))))))))))))))))))))))$

- $-16 \& K + @ + \%70(, +0 + 57\$) > 6\#(+I/\% + \#\# +, (\$9 + (@"+C(\$97\$(\$9 + (<>*/=0\#>\%?(P=\%"\#, "<\$">6(>D(\$9 + (E6\$+\%67\$">670() J>=\%\$(>D() e=\#\$"<+() C>=0, () B+() \$9 + ((\#\%>65 + \#\%)(/7\$9() D>\%() /\%> *>\$"65(7<<>=6\$7B"0"\$?(D>\%(<\"* + \#(757"6\#\$(9=*76"\$?(76, ()D>\%(\#>0@"65(), "#/=\$+#(<>6<+\%6"65(\$9 + ("6\$+\%/*)+\$7\$">6(>D(7(D=\$=\%+(<>6@+6\$)^{2})+6(>6(<\"* + \#(757"6\#\$(9=*76"\$?\%().6>\$9 + (\@"+C(C7\#(+I/\%+\##+, (\$97\$(\$9 + (,\%70\$(7\%\$''<0+(\%+D0+<\$+, (7(\#\$76, 7\%, (), "#/=\$+(\#+\$\$0+*+6\$(<07=\#+\$\#(#*"*"07\%())+((\$97\$(<>6\$^76"6+, ()(6(\$9+() J>6@+6\$">6().57"6\#\$()J>\%=/\$">6()\$(\$9+()(\$97\$(<>6\$^76"6+, ()(6(\$9+() J>6@+6\$">6().57"6\#\$()J>\%=/\$">6()(\$9+()(\$9+() J\$"*+()"*")+()(<\$6\$+6\$"\$6(\$6\$">6\$(K) *+(, +0+57\$">6\$(+*/97\$"V+, (\$9+(\$>0+(>D(<>6\#+6\$")6("6\$+\$^K\$7\$)+(, "#/=\$+\$\$)$

-FY& T>C+@+%&(7(6=*B+%(>)(,+0+57\$)>6#&(C9"0+(%+<>56"V"65(\$9+(/%"6<"/0+(>)()&)G))=1(6&"4(-()2&(6>6+\$9+0+#)())

 $> \%(>D(\#+\%") = \#(@">07\$">6\#(>D("6\$+\%67\$">670(9=*76"\$7\%"76(07CX\(7\#(\#=<9(*7\$)+\\\\#(<>6<+\\64+,("6\$+\%67\$">670(9=*76"\\57\\)"76(07CX\(7\#(\#=<9(*7\$)+\\\\\64+,("6\$+\\67\\)">670(9=*76"\\57\\)"76(07CX\(7\#(\#\$7\$+,(\$97\$)+,(\$97\$)+("9\\77\\)"76(07CX\(5\%)+(\\67\)"76(07CX\(5\%)+(\\67\)"76(07CX\(5\%)+(\\67\)"76(07CX\(5\%)+(\\67\)"76(07CX\(5\%)+(\$

 $- YF\& \quad . (6+C(\#=B/7\%75\%7/9(+6<>=\%75\%65(K\$7\$+\#(\$)<(\#\$7B0)^\#9(B+\#\$(/\%7<\$''<+\#(7)^**+,(7\$(/\%+@+6\$\%65(\%+\%\%7=*7\$''V7\$'')>6(,=\%65(+@'',+6<+(<00+(\%\%7B0)^*))>6(C7\#(\#=55+\#\$+,(B?(\#>*+(,+0+57\$'')>6\#\&(;9+((\%,-\%\%7B0)^*))>6)+(7@7\%7B\%)^*(2)+(9+570)^*(7)^*,(\$)<(@''<\$''*\#(C7\#(*+6\$)^*>6+,\&(;9+(\#=55+\#\$)^*>6(\$)<(7,,\%+\#\#(/\%7<\$'')<70(\$#=+\#(<>6<+\%6\%65(@''<\$''*\#(76,(C'')\$6+\#\#\#))>6()+(\%7\%7(-2)+(\%7\%7B0)^*)>6()+(\%7\%7(-1)+(\%7\%7B0)^*)>6()+(\%7\%7(-1)+(\%7\%7B0)^*)>6()+(\%7\%7B0)^*+(\%7\%7B0$

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