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&/-?)!)---"!.)\*/0!

1-%1(! (" \$@(' +!2. !2-' -?-' 1-!%' ()\*)!

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; \*\*2)%(\$!+)M#%)6\$' (!8, 6\$, (/)7!-%(!8!' \$' '\$, (8%!. /)!) +4%, , 8, 1!./)\$' (!/+%)%(8/, 'M!/+ (8O8' 8, 1!)\$\*/6\$)7!  
%(!(\$#!' G8-!8' !%, !8O+ /)(%, (!+)\*\$' ' !8, !O%B8O8' 8, 1!+) / .8(%&848(75!'' #8!' (2-7!4//G\$-!%(!# \$!% \*\*2)%\*7! / .!  
+)M#%)6\$' (!8, 6\$, (/)7!\$' (8O%(\$' !/ !6%42\$!%, -!6/42O\$!%, -!\*/O+%)\$-!(# \$O! ?8(#!%\*(2%4!%, -!/+ (8O%!  
)\$\*/6\$)7!%(!# \$#!' G8-!8' (!8, !O%)%O%)2%</)\$' (9! ! 8G%(/5!A, 6\$, (/)7!-%(!?%' !\*/4\$\*( \$-!/, !O)\$ \$!'!2' 8, 1!  
(?/!\*)2' 8, 1!O\$(# /- '9!' (% , -%) -!+)\*\$-2)\$!P/+%)%(8/, %40!%, -!%!(# /)/21#!\*)28' \$!P-8481\$, (05!'' )\$ \$!'! ?\$)\$!  
.\$4\$-!%, -!' \$\*(8/, %47! O\$%' 2)\$-!( /! \* /4\$\*( ! -%(! /! 6%48-%(\$! \*2))\$, (16/42O\$9! (%+\$)!%, -!&)\$%G%1\$!  
.2, \*(8/, '5!'' ##!() \$ \$!'! ?\$)\$!(\$ \$, !O)\*G\$-!( /!(\$#!' G8-!8' (!?# \$)!%\*(2%4!%, -!/+ (8O%4!)\$\*/6\$)7!./)\$%\*#!  
'(\$O! ?%'!)\$\*/-)\$-5!A, 6\$, (/)7!\$' (8O%(\$' !%, -!%\*(2%4!)\$\*/6\$)7!+\$)! '\$(\$O! ?%' !\*/O+%)\$-!2' 8, 1!(\$#!  
/+ (8O%4!)\$\*/6\$)7!%'!\*/ , ()/45!

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"#\$!' (2-7!./2, -!(#\$)\$! ?%' !%'! 81, 8.8\*%, (!-8..)\$, \*\$!8, !)\$\*/6\$)%&4\$!6%42\$!&\$ (?\$\$, !)

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"#\$!R+\$)% (8/, %4!>)28' \$!%, -!; \*(2%4!S\$\*/6\$)7!

"#\$!R+\$)% (8/, %4!>)28' \$!%, -!T8481\$, (!>)28' \$!

"#\$!R+(8O%4!S\$\*/6\$)7!%, -!; \*(2%4!S\$\*/6\$)7!!

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"#\$)\$! ?%' !%'! 81, 8.8\*%, (!-8..)\$, \*\$! 8, !)\$\*/6\$)%&4\$! 6/42O\$! &\$ (?\$\$, !R+(8O%4! S\$\*/6\$)7!%, -!(#\$!  
R+\$)% (8/, %4! >)28' \$!A, %\*\*2)%\*7! 8, !(\$#! +)M#%)6\$' (!\*)28' \$!'! ?%' !%'! )\$' 24(! /! \* /, '6%)6(86\$! \*%44' / , !  
O%)18, %4!C! \*O!&)% , \*#!' 8L\$!.\$%(2)\$' 5!'' ##!O%E/)8(7! / !6%42\$!4/' ' !-2)8, 11%\*(2%4!)\$\*/6\$)7! ?%' !(#)/21#!  
\*2((8, 1!4/1' !(#(!? \$)\$! /2(! /!.' +\$\*8.8\*%(8/, !%, -!2&' \$: 2\$, (47!-/? , 1)%-\$-5!'' ##!\*2))\$, (16/42O\$9! (%+\$)!  
%, -!&)\$%G%1\$! .2, \*(8/, ' !%-\$: 2%(\$47!+)\$-8\*(!O)\$ \$!./)O!%, -!&)\$%G%1\$!8, !O%)%O%)2%</)\$' (5!'' /(%4!6%42\$!  
4/' ' !8, !(#8!' (2-7! ?%' !' O%4\$)!(#, !O/' (14/' '\$' !./2, -!8, !/(\$!)16%42\$!)\$\*/6\$)7!' (2-8\$' 5!'' #8!' /24-!&\$!  
&\$\*2' \$! /!(\$#!4\$6\$4! /! \$B+\$)8\$, \*\$!%, -!()8, 8, 1!(\$#!+%) (8\*8+%, ('!8, !(#8!' (2-7! #%-!)\$\*86\$-5! U8%!  
&\$\*2' \$!%\*(2%4!)\$\*/6\$)7! ?%' !)\$\*/-)\$-!\*/24-!#%V\$!8, .42\$, \*\$-!(#\$!)\$' 24('5!

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&%(A)-. /' \$@,!-@-. !.)\*/\*0!

"(3!#(-%-. /!%' ()\*' \$-/)3!4' (/2\*\*2. O!&O0' (O-\*(15(-' 2. O!\$\*' (. O\*#!%' \$? !2\*)!4#+)2''-!4' \$B(' \*2)!

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; !4/(! /!(\$!8, \*)\$%' \$-!./)\$' (!+)-2\*(8/, !8' !4/\*%(\$-!8, !8)' (M)/(%) (8/, !./)\$' ('! ?8(#!, \$14818&4\$!%O/2, (! /!  
./)\$' (!)/%-!, \$(?)G' !8, !+4%\*\$5!'' #\$(.)\$9!)/%-!\*/ , ' ()2\*(8/, !%, -!O%8, (\$, %, \*\$!\*/O\$' !%(!#81#!\*/' (!  
%, -!8' !%'! 81, 8.8\*%, (!('G!./)!W\$ ?!X\$%4%, -!./)\$' ()7!8, -2' ()75!

=, &/2, -!1)% , 24%)!%11)\$1%(\$!8' !2' \$-!%' !8O+ )/6\$O\$, (4%7\$)!/ , !2, '\$%4\$-!./)\$' (!)/%- '5!!; \*: 28' 8(8/, !%, -!  
%++48\*(8/, !/ !%11)\$1%(\$!O%G\$' !2+!%4%)1\$!+ /)(8/, !/ !./)\$' (!)/%-!\*/' (5!'' /!O8, 8O8L\$!\*/' ('9!./)\$' (!)/%-!  
\$, 18, \$\$)'!(\$, -!( /!2' \$!4/\*%447!%6%84%&4\$!%11)\$1%(\$' 5!</)\$' (!)/%-!\$, 18, \$\$)'!#%6\$!48(4\$!G, /?4\$-1\$!%&/2(!  
(\$#!' 28(%&848(7! / !%1186\$, !%11)\$1%(\$!./)! /%-!\*/ , ' ()2\*(8/, 5!; 11)\$1%(\$!&\$%)8, 1!')\$, 1(#!8' !%, !8O+ /)(%, (!  
\$, 18, \$\$)8, 1!+ )/+)\$ (7!' !8( !-\$' \*)8&\$' !#/?!% !186\$, !%11)\$1%(\$!+)\$./)O' !2, -\$)!4/%-5!A, !O%, 7! \*%' \$' 9!  
&\$%)8, 1!')\$, 1(#!8' ! \$8(#\$)! /6\$)M! /)!2, -\$)M\$' (8O%(\$-9!)\$' 24(8, 1!8, !)/%-! .%842)\$! /)! \$B+\$, '86\$! /6\$)M  
\$, 18, \$\$)8, 15!

" /!%6/8-!(\$#!./)\$' (!)/%-!\$, 18, \$\$)'!O2' (!&\$!%&4\$!( /! : 28\*G47!-\$(\$)O8, \$!%11)\$1%(\$!&\$%)8, 1!')\$, 1(#!  
&7!4//G8, 11%(18(' !+ #7' 8\*%4!+ )/+)\$ (8\$' 5!'' ##!&\$%)8, 1!')\$, 1(#!8' !)\$+)\$' \$, (\$-!&7!>%48./), 8%!U\$%)8, 1!S%(8/!  
P/)!>USQ!6%42\$' 5! ! 8(#!(#%(!-%%(!# \$7!% , !O%G\$!8, ./)O\$-!-\$\*8' 8/, ' !%&/2(!%11)\$1%(\$! '28(%&848(7!./)! /%-!  
\*/ , ' ()2\*(8/, 5!



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Z%, !Z%\*(%'G\$-!O\$! ?8(#!\*/O+4\$(8, 1!(#\$8)!ed[ `!, %(86\$!./)\$'(!O/, 8(/)8, 1!+)/1)%OO\$!%, -!)\$68\$?!(#\$!  
)\$' 24('!(#%(!#%6\$!&\$\$, !\*/4\$\*(\$-!'8, \*\$(#\$(+)/1)%OO\$!?'!8O+4\$O\$, (\$-!8, !edde5!"#\$!/&E\$\*(86\$!/.!  
(#8!?'!(!&/(!1%8, !&\$((!)!2, -\$)'(%,-8, 1!/.!#/?(#\$(\*/O+'8(8/, !/!(#\$(!)\$O, %, ('!8, !(#\$8)b!\$'(%(\$!  
8!\*#%, 18, 1!%, -!(/!O%G\$!)\$\*/OO\$, -(8/, '!/, !#/?(#\$(+)/1)%OO\$!\*/24-!&\$!8O+)/6\$-!8, !(#\$.2(2)\$5!!

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"#\$!O%L/)8(7!/.!(#\$( [ [!Z\$)O%, \$, (!3%O+4\$!Z4/('!PZ3Z'Q!O\$%'2)\$-!?)\$!8, !1//-'!/'(%&4\$!\* /, -8(8/, 9!

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= '8, 1!; ) \*V8\$?!]5e%9!O/, (#47!' \$6\$)8(7!)%(8, 1!1)8- '!?'\$)\$!%, %47' \$-!&/(#!, %(8/, %447!%, -!+)/68, \*8%447!(/!  
1%8, !%, !%++)\$\*8%(8/, !/.'! \$6\$)8(7!)%(8, 1'!(#)/21#/2(!W\$? !X\$%4%, -5!T%(%.)/O!^!]!, %(8/, ?8-\$!)2)%4!  
.8)\$'9!.) /O!f247![aab!(/!f2, \$!eddb9!?'%!(#\$, !8O+ /)(\$-!8, (/!; ) \*V8\$?!]5e%!./)!\*/O+%8' /, !(/!O/, (#47!  
' \$6\$)8(7!)%(8, 1'5!

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H8, \$(%)!)\$1)\$' '8/, '!?'\$)\$!+\$.)/O\$-!&\$(?\$\$, !O/, (#47!' \$6\$)8(7!)%(8, 1'!%, -!2)%4!.8)\$!/\*\*2))\$, \*\$9!%)\$%'!  
&2), (9!%, -!.8)\$!'2++)\$' '8/, !\*/('5!; 4!(#)\$!)\$1)\$' '8/, '!+)/-2\*\$-!'81, 8.8\*%, (!)\$'24('!&2(!?8(#!6%)8\$-!8, !  
)\$4%(8/, '#8+!' )\$, 1(#5!A(! ?%'! \*/ , \*42-\$-! (#%(!' \$6\$)8(7!)%(8, 1'!%)\$!%' )/, 1!8, -8\*(/)! /.!2)%4!.8)\$!  
/\*\*2))\$, \*\$! ?8(#!%!\* /\$. .8\*8\$, (!/.!-\$(\$ )O8, %(8/, !/.'!^ \\_5!V\$)7!?'\$%G!\* /))\$4%(8/, '!?'\$)\$!./2, -!&\$(?\$\$, !  
%)\$%'!&2), (9!%, -!.8)\$!'2++)\$' '8/, !\*/('9!'211\$' (8, 1!%-8(8/, %4!8, .42\$, \*\$!' /(#\$)!(#%, !' \$6\$)8(7!)%(8, 1'  
%)\$!O/)\$!8O+ /)(%, (!8, !+)\$-8\*(8, 1!(#\$' '\$!\$4O\$, ('!/.!)2)%4!.8)\$5!

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S\$' 24('!.)/O!(#\$!(?/!)8%4!' 211\$' (\$-!(#%!(#\$)\$!?' J!!  
 W/!&\$, \$.8(18, !\*/6\$)8, 1!' (%\*G'!8, !' 200\$)!(80\$!!  
 A, \*)\$%' \$-!)78, 1!)%(\$!?'8(#!' +48(8, 1!  
 381, 8.8\*%, (47!O/) \$!-8..8\*24(7!-)78, 1!8, !?8, (\$)!(#%, !' 200\$)!

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>/, \*42'8/, '!.) /O!(#8'!)\$' \$%) \*#18, \*42-\$-J!  
 A(!?'! , /(!+' ' 8&4\$!(/!+)/-2\*\$!' 28(%&4\$!.2\$4!2'8, 1!?'8, (\$)!)78, 1!  
 3+48(8, 1!4\$-!(/!O/) \$!\$..\$\*(86\$!-)78, 1!8, !' 200\$)!(80\$9!&2(18' !2, 48G\$47!(/!&\$!\* /' (M\$..\$\*(86\$



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""#\$!O%0, !.8, -8, 1!.) / O!(#8'!)\$+ /)(!8'!(#%(!%!' 81, 8.8\*%, (!-8..\$)\$, \*\$!?'%!. /2, -!&\$(?\$\$, !())\$%(O\$, ('9!(#8'!  
?'%!'\$B+)\$\$' \$-!&7!-8..\$)\$, \*\$'!8, !.%(, '\$'!'%, -!#\$81#(5!

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5' \$3. ,!G())2" -!.)\* /)0!

E' \$32. 0!"\$@(' -0(3!\*#(!"\$)\$)!\$&!? ((\*2. 0!(?2)2\$. )!\$, %20-\*2\$. )!1)2. 0!' -/2-\* -!B2. (!B%- . \*- \*2\$. !&\$' ()\*\* +!  
2. !" (3!#(-%- . /!

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=, -\$)! (#\$! W\$?! X\$%4%, -! Y08' '8/, '!")%-8, 1! 3\*#\$O\$9! &2'8, '\$' '\$! \$O8((8, 1! 1)\$\$, #/2'\$! 1%' '\$! O2' (!  
'2))\$, -\$)!\*%)&/, !\*)\$-8('!/.!\$: 2%4!: 2%, (8(7!(/!(#\$8)!\$O8' '8/, '5!!"#\$' '\$!%, !&\$!' /2)\*\$-!(#/#)21#1O%)G\$('!  
/)!8, (\$)O\$-8%)8\$'9! /)! (#\$7! \*%, !(#\$! 1/6\$), O\$, (!%(!%!\*2))\$, (47! .8B\$-! \* /' (!/.! oebK(>R\$5\$!!</)! .2(2)\$!  
\$O8((8, 1!+) /E\$\*('9!(#\$!)\$' 24(8, 1!6%)8%&4\$!\*%)&/, !+)8\*\$'8'!2, -\$'8)%&4\$5!!

; !' +)\$%- '#\$\$(!&% '\$-!\$' (%(\$!O/- \$4!?'%!'!-\$6\$4/+-\$-!(/!%' '\$' '!(#\$!\*/' (!\*/O+\$ (8(86\$, '\$'!' / .!2' 8, 1! /&. \$)(  
, ' O&' 1' (+4%, (%(8/, !. /)\$' (!\$' (%&48' #O\$, (!(/!\* /6\$)! (#\$! \$O8' '8/, '!/.!%&2' 8, '\$'!' +) /-2\*8, 1!%!( /(%4! /!  
[5bO(>R\$5\$!/6\$!)]d!7\$%)'5!!!

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/.!W\$?!X\$%4%, -9!%, -!#/?!-)/21#(!\*/ , -8(8/ , '!?)\$)!%..\$\*(\$-!! \$8(#\$)!&7!/!\*\*2))\$, \*\$!%, -!-2)(8/ , 9!  
?8(#8, !%, -!&\$(?\$\$, !(\$'\$!)\$18/ , '!?8(#8, !(\$'+%' (!Cd!7\$%)'5!

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R, \$!\*48O%(/4/17!8, -8\*(/)!Z/(\$, (8%4! Y6%+/()%, '+8)(8/ , !T\$.8\*8(!PZYT09! ?%'!2' \$-!%'!%!)\$-8\*(/)!/.!  
-)/21#(9!%, -!(\$)\$\$.8)\$! ?\$%(\$!)!8, -8\*\$'!PU284-2+!A, -\$B!PU=A09! T)/21#(!>/-\$!PT>0!%, -!(\$! T2..!  
O/8'(2)\$!>/-\$!PTO>00!?\$)\$!2' \$-!%'!.8)\$!?\$%(\$!)!O\$%'2)\$'5!

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"#\$!.8)'(!.%\*(/)!(#%(!?'!O\$%'2)\$-!?'!(\$!+)\$-8\*(%&848(7!/!.!(\$\$.8)\$!?\$%(\$!)!8, -8\*\$'9!?'8\*#!%)\$!2' \$-!  
&7!./)\$'(!\*/O+%, 8\$'!%)/2, -!W\$?!X\$%4%, -!%'!%!)\$-8\*(/)!/.!8)\$5!A(!?'!./2, -!(#%(!U=A!?'!(\$!O/'(!  
'()/ , 147!\* /))\$4%(\$-!<8)\$!| \$%(\$!)!A, -\$B!P<I AQ! ?8(#!ZYT5!"#8'!O\$, (!(\$!U=A!?'!(\$!&\$'(!+)\$-8\*(/)!/.!  
-)/21#(18, !(\$!(\$)\$!)\$18/ , '!\*/ , '8-\$)\$-5!

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O\$%, !'(\$O!'4\$, -\$), \$'!'%, -!O\$%, !?//-'(8.., \$'!'6%42\$'!?)\$!\*%4\*24%(\$-!&7!&4/\*G9!?\$-\$-!\*/ , ()/4!  
()\$(O\$, (9!%, -!4/, \$5!I \$\$-!\*/ , ()/4!()\$(O\$, ('!#%-!%!'81, 8.8\*%, (18O+\*(12+/, !O\$, !?//-'(8.., \$'!'  
8, !\*/O+)8' / , !(!(#\$!\*/ , ()/4!()\$(O\$, (!Pd5d]!O\$!)\$%!/ !?\$\$-!\*/ , ()/4Q5!381, 8.8\*%, (!-8..\$)\$, \*\$'!-8-!  
, /(!B8' (!&(\$?\$\$, !-8..\$)\$, (4\$6\$4' !/ !?\$\$-!\*/ , ()/49!8\$59!d5^b!O\$9!)]5[C5!O\$!%, -!a!O\$!\*\$#O8\*%4!'+/(!'+)%7!  
%)\$%5!

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>4/ , %4!6%)8%(8/ , !%, -!('\$O!'4\$, -\$), \$'!'!81, 8.8\*%, (47!%..\$\*(\$-!O\$, !?//-'(8.., \$'!'O\$%'2)\$'5!3(\$O!  
'4\$, -\$), \$'!'!%+)\$)\$-! (/! &\$! \*/))\$4%(\$-! ?8(#! \*4/ , %4! 6%)8%(8/ , !P8, (\$)%(8/ , ! &\$(\$?\$\$, ! \*4/ , \$! % , -!  
'4\$, -\$), \$'!'! ?%! , /(! '81, 8.8\*%, (Q9! #/?\$6\$)9! %\*\*/) -8, ! (/ T)! Y2%, ! O% / , 9! (#8'! .8, -8, 1! 8'! , /(!  
\*//)&/%)(\$-!&7!.8, -8, 1'!) /O!/(#\$!)\$'\$%)\*#! / , !(#\$!/?// -! : 2%48(7!/.!4/ , \$'!8, !>, (\$)&2)7P+\$) / , %4!  
\*/OO2, 8\*%(8/ , 9!3\$+(O&\$)! [ ^ 9!ed[] Q5! ; , !%, %47'8'! / !\*/6%)8%, \*\$!P; W>RV; Q! -(\$)(O8, \$-!(#%!(O\$, !  
#81#(! / !(\$!486\$!\*) / ? , !?%! , /(!%!'81, 8.8\*%, (!+)\$-8\*(/)! / !?//-'(8.., \$'!'5!>/O+)8' / , !?8(#!%)48\$!)  
)\$'\$%) \*#! #/?\$-! , /!\*#%, 1\$!8, !(\$!%) , G8, 1! / !?//-'(8.., \$'!'6%42\$'!&7!\*4/ , \$! / )!()\$(O\$, (5!

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7-?B, (%!,9#\$' . \*\$. !.)\*/L0!

>/-B#2!IN\$. 2. O!- . /!)B("2()8)2\*(! ? - \*\*#2. O!\*\$!-)2)\*! (8@O(\*-2\$. !&2. /2O(. \$1)!)B("2()!- \*!\*#(!\$\*+E!22%!  
<() '@(!

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"#\$!3(7B!O84!S\$'\$)6\$!8'!4/\*%(\$-!8, !U\$4%'(9!>#)8' (\*#2)\*#!%, -!8'!O%, %1\$-!&7!(#\$!>#)8' (\*#2)\*#!>8(7!  
>/2, \*845! #/!%8O!(/!)\$M\$'(%&48' #18, -81\$, /2'!6\$1\$%(8/ , !(/4%)1\$!+ / + / ) (8/ , ' / !!(#\$!%)\$%5!""#\$'\$!\$.. / ) ('!  
#%6\$!&\$\$, !'2\*\*\$' . 24!8, ! / O\$!' \*\$(8/ , ' / !!(#\$!S\$'\$)6\$!M&2(14%)1\$!%)\$% / !!(#\$!S\$'\$)6\$!)O%8, 18, 11)%'!  
%, -! / (\$\$)!?\$\$- '5!""#\$!+2)+ / '\$! / !!(#8'!8, 6\$' (81%(8/ , !?%! / !(\$6%42%(\$!(\$!+)\$'\$, \*\$! / !b!#7+ / (\$'8' \$-!  
\$-#8\*!L / , \$'!8, !% [d!#%!' (2-7!%)\$%9! ?8(#!%!.2(2)\$!%8O! / !O%(\*#8, 1!\$' (%&48' #O\$, (!+)\*\*(8\*\$'!(/!(#\$' \$!  
\$-#8\*! '8(\$'5! <8, -8, 1'!8, -8\*%(\$-! (#%!(%4! L / , \$'! #%6\$! '81, 8.8\*%, (47! -8..\$)\$, (! 6\$1\$%(8/ , !%, -! ' /8!  
\*#%)\*(\$)8' (8\*'5!>/ , '\$: 2\$, (8%47!O\$(# / - ' / !. !, %(86\$!)\$M6\$1\$%(8/ , !O2' (!&\$!-8..\$)\$, (!8, !\$\*#!L / , \$!8!  
'2\*\*\$' . 24!)\$M\$' (%&48' #O\$, (! / !. !, %(86\$!' + \$\*8\$'!8'!( / !\*\*2)5!

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U%' \$-! / , !\* / , .8)O\$-!\$-#8\*!L / , \$'!%, -!48\$, (18, +2(9!%'8(\$!O%(\*#\$-!O%, %1\$O\$, (!+4%, !%, -!' + \$\*8\$'!  
48' (! / ) / , \$!L / , \$! ?%'! - \$6\$4/ + \$-5!""#8'!%8O\$-!( / 18, \*)\$%' \$!(#\$!#%4(#!%, -!'2)686%4!)( \$'! / !+4%, (8, 1'5!  
38(\$!O / -8.8\*%(8/ , ! / 44/?\$-!(\$\*# , 8: 2\$'!2\$-1%!( '8(\$!?'8(#!'8O84%)!\*/ , -8(8/ , '!(#%(!#%6\$!#%-!'2\*\*\$' '\$!  
8, !\$' (%&48' #8, 1! ?// - 7!6\$1\$%(8/ , 5!""#\$!\$.. \$\*( / !.#7- ) / 1\$4! / , !#%\$(#!%, -!'2)686%44\$6\$4'!?'%!'4' / !()8%44\$-5!  
"/!%' '\$'!' + \$\*8\$'!' 28(%&848(79! .86\$!' + \$\*8\$'! ?\$)\$!' \$4\$\*(\$-!&% '\$-! / , !(#8)!%&848(8\$'!( / !'2)686\$!(#\$'!8(\$!  
\*/ , -8(8/ , '5!T2\$!( / !%\* / O&8, %(8/ , ! / !. !)' (!- %O%1\$!%, -!2, 124%(\$!&) / ?' \$9! / , 47! ( / (%)! '2)686\$-!%, -!  
-\$O / , '()\$( -!1 / / -!#%4(#! '\* / )\$'5!""#\$! .) / ' (!.%\*( / )!8'! -8.8\*24( / !O8(81%(\$9!#\$, \*\$!' + \$\*8\$'!%.. \$\*(\$-!  
'\$6\$)\$47!&7!.) / ' (!%)\$! , / (!)\$\* / OO\$, -\$-5!""#1&)/?'\$!8' 2\$!8'!\$%'8\$)!( / !O8(81%(\$!%, -!8(18'!. \$4!(#%!(#\$!



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7%(-' +,!((\$?2. 2"!.)\*)0!

9#(!("\$\$. \$?2")!\$&!"-' , \$. !-""\$1. \*2. 0!2. !\*#(>9\$3!"\$?B-' 2. 0!\*#(!7-. \*( ' , 1' +N@()\*!7\$-)\*%\$A81B!\*-, %(!  
\*\$!?(-)1' (/!+2(%/)&' \$?!\*#(!%2(%/!2(-)1' (?(. \*!&BB' \$-"#12. !" \$' \*#17-. \*( ' , 1' +!#2%!"\$1. \*' +!&\$' !P  
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"#\$!W\$?!X\$%4%, -!Y08' '8/ , '!"%)-8, 1!3\*#\$O\$!PY"30!?'!8, ()/-2\*\$-!8, !edd\!(/!' '8' (!W\$?!X\$%4%, -!8, !  
O\$\$(\$, 1!)\$: 28)\$O\$, ('! ./)! 8, (\$), %(8/ , %4! \*40%(\$! \*#%, 1\$! %1)\$O\$, ('5! </)\$' (! /?, \$)'! ?8(#! 4%, -!  
\*4%' '8.8\$-!%'!+/' (M[a\al!%)\$!\$4818&4\$!(/!'++47!./)!\$O8' '8/ , !)\$ (2), '!.)/O!\*%&/ , !'\$ : 2\$' ()%(8/ , 5!</)\$' (!  
/? , \$)'! ?8(#!4\$' ' !(#%, ![dd!#%!)\$!\$: 28)\$-!(/!2' \$!-\$.%24(4//GM2+!(%&4\$'!.)/O!(#\$!O8, 8' ()7!./)!Z)8O%)7!  
A, -2' ()8\$' !POZAQ!(/!'\*\*/2, (!./)!\*%&/ , !'\$ : 2\$' ()%(8/ , 5!</)\$' (!/? , \$)'! ?8(#![dd!#%!/!)O/)(\$!\$!\$: 28)\$-!  
(/!O\$%'2)\$!./)\$' ('!(#)/21#!(#\$!.8\$4-!O\$%'2)\$O\$, (!%++)/%\*#IP<O; 05!!

/&. \$)(, ' 0&' 1' (T5T/ , !./)\$' ('!8, !W/)(#!>%, (\$)&2)7!@84!>/2, ()7!?\$)\$!O\$%'2)\$-!8, !%\*\*/-, \*\$! ?8(#!(#\$!  
<O; !(/!\*)\$%(\$!%, !%6\$)%1\$!78\$4-!(/!\* /O+%)\$! ?8(#!(#\$!>%, (\$)&2)7KI \$' (!>/%' (4//GM2+!(%&4\$5!A, !W/)(#!  
>%, (\$)&2)7!@84!>/2, ()79!./2)(\$\$, !./)\$' ('!?\$)\$!O\$%'2)\$-9!%, -!(#)\$!8, !(#\$!Z

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"#8'!%, %47'8' !/ !./)' (\$!8, \*42-\$-!O%++8, 1!/.!(#\$\$' (%(\$9!\*%))78, 1!/2(!%, !8, 6\$, (/)7!/.!(#\$!' (% , -8, 1!\*)/ +!  
%, -18, 6\$' (81%(8/, !8, (/!(#\$!48G\$48#// -!/.!, %(2)%4!./)' (\$!\$1\$, \$)% (8/, 5!

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O%++8, 1!/.!(#\$\$' (%(\$!./2, -!` b5[!#%!/ !4%, -!8'!\*4%' '8.8\$-!%!+)\$! [aad!./)' (\$!4%, -!2, -\$)! (#\$!Y''3!%, -!  
%44!/(#\$!)%\$%!'8'!, /(!-\$O\$-!./)' (\$!4%, -9!8, \*42-8, 1!(\$!ad5\!#%!/ !4%, -!#%)6\$' (\$-!+)8/)!(/![!f%, 2%)7!  
edd\5!

!

R.!(#\$!` b5[!#%!/ !+)\$! [aad!./)' (!C!#%!#%' !&\$\$, !#%)6\$' (\$-!'8, \*\$![!f%, 2%)7!!edd\5!''#8'!4%, -! ?844!&\$!  
-\$O\$-!(/!#%6\$!&\$\$, !-\$./)' (\$-!2, 4\$' '!%!. /)' (\$!\*)/+18'!\$' (%&48' #-\$-!&7!(#\$!\$, -!/.!ed[e5!3#/24-!(\$!  
=>3; !.%84!(/\$' (%&48' #!%, !Y''3!./)' (\$!\* /+!/, !(#8'!4%, -!(\$7! ?844!&\$!48%&4\$!./)!%!-\$./)' (%(8/, !+\$, %4(7!./!  
%++)/B8O%(\$47!o]^9` Ce5!Y' (%&48' #8, 1!%!. /)' (\$! /, !(#8'!4%, -! ?844!\*/' (!&\$(?\$\$, !o[[M[]9ddd5!

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R.!(#\$!` [5[!#%!/ !' (% , -8, 1!./)' (\$! [!])5[!#%!'8'!\$\*/ , /O8\*%4!(/!#%)6\$' (!, /?9!%, -!\* /24-!186\$!%' (2O+%1\$!





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""#\$!%, %47'8'!' #/?\$-!(#%(!#\$81#(IP%-E2' (\$-!./)!(\$!\$4\$6%(8/, !-8..\$)\$, \*\$!&\$(?\$\$, !(\$!+)/((\$\*(8/, !' )8+!  
%, -!(\$\$!' (%, -0!P)cd5b`09!%, -!(\$\$!#\$%4(#!P)cd5C[0!/.!(\$!8, 4%, -!\$-1\$!/.!(\$\$!+)/((\$\*(8/, !' )8+!?\$)\$!  
'81, 8.8\*%, (47! \*/)\$4%(\$-! ?8(#! 6/42O\$! ?8(#8, !(\$\$! .8)'(! edO! /

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/(!E\$13,!\$-'-#!.)\*/D0!!

9#(!1B\*-A(!-. /!, -' '2(')!\$&!O(\$)B-\*2-#!\* ("#. \$%\$02()!2. !" (3!#(-%-./A)!&\$' ()\*!?- . -O(? (. \*)("\*\$' !

g\$/' +%(8%!( \$\*#, /4/18\$' !#%6\$!-\$6\$4/+-\$-!)%+8-47!8, !)\$\*\$\$, (!-\$\*- \$' !%, -!\*%, !+)/68-\$!-\$(%84\$-9!%\*\*2)%(\$!

-%(%! (/! '2++/)(! ./)\$'(! O%, %1\$O\$, (! -\$\*8'8/, '5! >/OO/, 47! 2'\$-! (\$\*#, /4/18\$'! 8, \*42-\$! g4/&%4!

Z/'8(8/, 8, 1!37' (\$O!PgZ309!g\$/1)%+#8\*!A, ./)O%(8/, !37' (\$O'!PgA30!%, -!)\$O/(\$!' \$, '8, 1!(\$\*#, /4/18\$'5!

j, /?4\$-1\$!/.!(#\$!2+(%G\$!%, -!&%))8\$)!/.!1\$/' +%(8%!( \$\*#, /4/18\$' !8, !((/-)1(4)-2(/1((/OO(/)-(#)-1275185(%64(8)4(((\$

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""#\$!-8' )8&2(8/ , '!. /2, -. /.)!\$%\*#14/11!)%-\$!?)\$!(#\$, !2' \$-!(/\*%4\*24%(\$!%)%, 1\$!/.!6%42\$'!. /)!\$%\*#14/11!  
1)%-\$5!V%42\$'!?)\$!\$!\*%4\*24%(\$-!(/!)\$+)\$' \$, (14/1!6%42\$'!. /)!/O!(#\$!?)' (!\*' \$!(/!(#\$!&\$' (!\*' \$!' \*\$, %)8/' N!  
-8. .)\$, (1+\$)\*\$, (84\$!)%, 1\$!/.!+)\$-8\*(\$-!+/' '8&4\$14/1!+)8\*\$'!?)\$!\$12' \$-!(/!.8, -!6%42\$'!)%, 18, 1!.) /O!)8' G!  
%6\$)' \$!(/!)8' G!(%G8, 15!='8, 1!)8' G!(%G8, 114/1!6%42\$'!8, !B8' (8, 1!./)' (16%42%(8/ , !O\$(#/-'!' #/?!(#(!?8(#!  
%!]d!7\$%)!)/(8/ , !%, !8, \*)\$%' \$!8, !6%42\$!/.! /6\$)! [ \_!8' !+/' '8&4\$!./)!%!)%, 1\$!/.! 8468\*24(2)%4!)\$18O\$' 5!''#8'!  
\$B(O)%!6%42\$!8'!)\$. \$))\$-!(/!'!'+(8/ , !6%42\$5!

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""#\$!&\$' (!\*#%, \*\$!/.!\*%+(2)8, 1!/+ (8/ , !6%42\$!8'!?)8(#!%, !2, +)2, \$-!)\$18O\$5!''#\$!4/11!)%-\$'!+)/-2\*\$-!&7!  
2, +)2, \$-!)\$18O\$'!)\$!O/) \$!6/4%(84\$!%, -(#\$!)\$18O\$!+)/68-\$'!%4/ , 1!?)8, -/?!?)#\$!)\$!-8' \*/2, (\$-!6%42\$'!  
%)\$!\*4/' \$!(/!/+ (8O2O5!YB+ /)(!1)%-\$'!%)\$!(#\$!O/' (16/4%(84\$!1)%-\$'!%, -!+)/68-\$!(\$!&\$' (!\*#%, \*\$!/.!  
+)/68-8, 1! #81#! 6%42\$'!8, '8-\$! (\$!)\$18O\$'! /+(8O2O! 6%42\$! ?8, -/?5! ; 4(#/21#9! 2, +)2, \$-!)\$18O\$'!  
/+(8O2O! /+(8/ , !6%42\$'!/\*2)!&\$(?\$\$, ! [ ]!%, -!e`!7\$%)'5!S/(%8/ , !%1\$'!1)\$%(\$)! (#%, !e`!7\$%)'!%)\$!  
\*/ , '8-\$)\$-!+)\$. \$)%&4\$!./)! ?// -! : 2%48(7!PI %4G\$)9! edd`05! I #(\$)!)/(8/ , !%1\$'!%)\$!)\$: 28)\$-!(/!&\$!  
4/ , 1\$)!(#%, !e`!7\$%)'!+)2, \$-!)\$18O\$'!+)/68-\$!(\$!&\$' (!/+ /)(2, 8(7!./)! /+(8/ , !6%42\$5!

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""#\$!6%42%(8/ , !O\$(#/-!2' \$-!8, !(#8'!' (2-7!\*%, !&\$!2' \$-!&7!./)\$' (!8, 6\$' (/)'!(/!\$6%42%(\$! /+(8/ , !6%42\$!  
%6%84%&4\$!(/!(#\$O5!''/\*%+(2)\$! /+(8/ , !6%42\$!8, 6\$' (/)'!?)84! , \$\$-!(/!(8O\$!#%)6\$' (8, 1!(/\* /))\$' +/ , -!?)8(#!  
#81#14/1!+)8\*\$'5!; !8-\$!\$.. \$\*(!/.! (#8'!8'!8, \*/ , '8' (\$, (!?// -!4/?5!''#8'!, \$\$-!'!%)\$.24!\* / , '8-\$)%8/ , !&\$./)\$!  
%!\* /OO8(O\$, (!(/!8, \*/ , '8' (\$, (!#%)6\$' (8, 1!8'!O%-5!

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(\$+%(, !2- \*\*#(3!G=&=.) \*//0!  
-?B-""\*\$&!)\*\$"A2. O,!3((/"\$. \*' \$%,!&(' \*2%2N(' ,!O(-!!

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(\$+%,!<+-!.)\*); 0!!  
" \$. 8/() '\* 1''\*2@(! 3\$\$\$/! (@-%1-\*2\$. 3! \$B(' -\*2\$. -%2)2. O! -!' ()2)\*\$O' -B#!2. ! \*#(! \$1\*#!-)%-. /! \$&! " (3!  
#(-%- . /!

A, ! W\$?! X\$%4%, -9! ' /O\$! '%?O844'!)\$!): 2\$' (8, 1! 4/1'! %&/6\$! %! ' (8., \$' '1)%)-\$9! +)/O+(8, 1! ./)\$' (!  
O%, %1\$)! (/! 8, (\$1)%(\$! ' (8., \$' 'M)\$4%(\$-! -%(%! 8, (/! (#\$8)! )\$' /2)\*\$! 8, 6\$, (/)8\$'5! '#\$! AOH! ZTCdd!  
)\$'8' (/1)%+#!+)/68-\$'!%)%+8-!%, -!, /, M-\$' ()2\*(86\$!O\$, '!/.!'%O+48, 1!())\$'\$!./)!-\$, '8(7!?'8(#!' (2-8\$!  
-\$O/, '())(8, 1!%#81#!\*/))\$4%(8/, !&\$(?\$\$, !'8(\$M%6\$)%1\$!\$' (8O%(\$!/.!&%'8\*!-\$, '8(7!%, -!'8(\$M%6\$)%1\$!  
' (8., \$' '!.!&/%) -! /2((2), !%(!'! '%?O8445!!

R, \$</)(7R, \$!W\$?IX\$%4%, -!#%'!+2)\*#%'\$-!%)\$'8' (/1)%+#!?8(#!(\$!8, (\$, (8/, !/.!2'8, 1!(#\$!\$' (8O%(\$!/.!  
&%'8\*!-\$, '8(7! (#%(!8(!+ )/68-\$'! (/! '\$1)\$1%(\$! (#\$8)! ' (% , -'! ./)! ' (8., \$' '5! ''#8'!' (2-7!8, 6\$' (81%(\$-! (#\$!  
'%O+48, 1!8, (\$, '8(7!, '\$\*\$' '%)7!(/!%\*#8\$6\$!%!) /&%&4\$!48O8(!/!.\$)) /!PZHYQ! /! [dM! [b!\_!./)! ' (% , -M\$6\$4!  
&%'8\*!-\$, '8(7!\$' (8O%(\$!(/!#\$4+!R, \$</)(7R, \$!/+)\$%(8/, %48\$!(\$!(/!45!@81#M!8, (\$, '8(7!'%O+48, 1!?'%!  
\*)8\$-! /2(!%\*) /'!'! [b!' (% , -'! (#%(!\*/6\$)\$-!%)%, 1\$!/.!\$, 68) /, O\$, (%4!\*/ , -8(8/, '5!38O24%(8/, '!/.!(\$!  
ZHY!\$: 2%(8/, !?%)\$!)2, !8, !S!?'8(#!(\$!\$' %O+48, 1!8, (\$, '8(7!'7' (\$O%(8\*%447!)\$-2\*\$-!(/!' '\$'!'!(\$!8, .42\$, \*\$!  
/ , !ZHY5!!

S\$' 24('! 211\$' (\$-!(#%(!' %O+48, 1!+ )/1)%O'!. /)! ' (% , -M\$6\$4!\$' (8O%(\$!/.!&%'8\*!-\$, '8(7!\*%, !&\$!\*%)8\$-!  
/2(!%(!%16\$)7!4/?!' %O+48, 1!8, (\$, '8(75! 8(#!/, 47![d!(/(%4!\$O75! 8(#!/, 4+'3O/TT7.OO16Tn%, -

!

'(2-8\$-!\*/2, ()8\$!%, -!./)!?// -M&% '\$ -!+, \$4!8, !f%+% , 5!</) \$\*%' ('!+)/ -2\*\$-!./)!\*/ , '2O+(8/ , !8, !f%+% , !  
'#/24-!&\$!2'\$-!%! / , 47!%, ! \$B%O+4\$! / .!(# \$! \*%+&88(7! / .!(# \$! O / - \$4! +) \$' \$ , (\$-!# \$)8, 5!O/) \$! ? /) G!8'!  
)\$: 28) \$-!( / - \$6\$4 / +!(# \$' \$! \$: 2%(8/ , ' !8, (/!%!. /) O! ?# \$) \$(# \$7! \*% , !&\$!2' \$-!( / O /) !% \*\*2) (\$47! \$' (8O% (\$!  
.2(2) \$! \* / , '2O+(8/ , 5! !

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(1, !# #2, 2. !.) \* / F0!  
<- \* ()! \$&! < ('1' . !\$. !% \$' () \*' +!-. @ () \* ? ( . \*12. !" (3!# (-%-. !/

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<8, %, \*8%4!8, . /) O% (8/ , !8, !(# \$! +2&48\*! - / O%8, !8' !8O+ /) (% , (!. /) !8, 6\$' (/) ' !% , -!4% , - / ? , \$) ' ! ( / !2 , - \$) ' (% , -!  
(# \$! +) / .8(%&88(7! / .! /) \$' ()7!8, 6\$' (O\$, ('5!A, (\$)\$' (!.) / O!8, ' (8(2(8/ , %4!8, 6\$' (/) ' !8, !+2) \*#% '8, 1! W\$? !  
X\$%4%, -! /) \$' ('!#% ' !8, \*) \$% '\$ -9!%, -!8, . /) O% (8/ , ! / , !) \$ (2) , ' !O%7!%4' / ! \$ , \* / 2) %1\$! , \$ ? !8, 6\$' (O\$, (5! ' #8' !  
' (2-7! \*%4\*24% (\$' !% !'8, 14\$M+ \$)8 / -!) (% (\$! / .!) \$ (2) , !PASSQ! / , ! \$B8' (8, 1! . /) \$' (!8, 6\$' (O\$, (!8, !W\$? !X\$%4%, -!  
2'8, 1! -% (\$! .) / O! .8, %, \*8%4! ' (% (\$O\$, ('5! " # \$!) (% (\$! / .!) \$ (2) , !8' ! \*%4\*24% (\$-!% ! (# \$! '2O! / .!(# \$! +) / -2\* (86\$!  
) \$ (2) , !P, \$ ('\*% #!) \$ (2) , ! / , !% ' \$ ('O!%, -!(# \$! \*#% , 1\$!8, !% ' \$ (!6%42\$5!S\$'24('! # / ? ! (# \$! #81 #!6%)8%&88(7! / .!  
.8, %, \*8%4! + \$) . /) O%, \*\$!8, !\* / O+%, 8\$' !8, \*42- \$-!8, !(#8' !' (2-79!)% , 18, 1!.) / O!M [ \_ ! ( / ! [ C5a\_5!S\$ (2) , ' !O%7!  
&\$!% . \$\* (\$-! &7! . /) \$' (!%1\$! \*4%' !' !') 2\* (2) \$9! . /) \$' (! +) / -2\* (868(79! \$B\*#% , 1\$!) (% (\$9! 4 / 1! +) 8\* \$' 9! . /) \$' (!  
O%, %1\$O\$, (!%, -! \* / O+%, 7!') (% (\$18\$'5!

"? / ! O \$ (# / - ' ! ( / ! \*%4\*24% (\$! +) / -2\* (86\$!) \$ (2) , ! ? \$) \$! \$B%O8, \$-5! " # \$! \*% # .4 / ? ! ' (% (\$O\$, (!O\$ (# / -!8' !  
) \$\* / O O\$, - \$-!% ' !8(18, \*42- \$' !& / (#! / + \$) % (8, 1!%, -!8, 6\$' (8, 1! \*% # .4 / ? 9!%, -!(# \$! -% (%!8' ! \$% '7! ( / ! \$B) % \* (5!  
A(18' !%4' / + / ' '8&4\$! ( / !2' \$!8, \* / O \$! ' (% (\$O\$, (!?# \$, !\*% # .4 / ? ! ' (% (\$O\$, (!8' !, / (!%6%84%&4\$5!A, !(#8' !\*% '9! (# \$!  
% \*\*2) % \*7! / .!(# \$! \$' (8O% (\$! - \$ + \$ , -' ! / , ! (# \$! % O / 2, (! / .! - \$ (%84! +) / 68- \$-!87! .8, %, \*8%4! ' (% (\$O\$, (5! ' #8' !' (2-7!  
+) / 68- \$-!%, !8, -2' )8%4! \$' (8O% (\$! &% '\$ -! / , ! (# \$!) \$6\$, 2\$M? \$81# (\$-!%6\$) %1\$5! R6\$) %449! W\$? !X\$%4%, -!  
. /) \$' ()7! \* / O+%, 8\$' !' (2-8\$-!#%-!%, !%6\$) %1\$!) (% (\$! / .!) \$ (2) , ! / .! \5] \_! -2)8, 1! (# \$! + \$)8 / -! eddalled [ b5! ; , !  
8, \*) \$% '8, 1! () \$ , -! / .! +) / .8(%&88(7! / , ! /) \$' ()7!8, 6\$' (O\$, (!8' ! \$B+ \$\* (\$-9!%4 (# / 21# !8(18' !8G\$47! ( / ! .42\* (2% (\$!  
. /) O!7\$%) ! ( / 7\$%) 5! " # \$! ?% ' !% !' O%4!8O+ % \* ( / .! \*% ) & / , ! O%) G\$ ('! / , !) \$ (2) , !8, !' (2-8\$-! \* / O+%, 8\$' 5! " #8' !  
?% ' ! \*2' \$-!87! (# \$! +) / +) (8 / , ! / .!(# \$8) . /) \$' (!% ' \$ ( / (# \$! !8' !p+) \$M [ aadq! . /) \$' ('! ? #8' #! - / \$' ! , / (!: 2%8. 7!  
. /) ! \$%) , 8, 1' !2, - \$) ! (# \$! WX! Y O8' 8 / , ' !' ) -8, 1!3\* # \$ O \$9!%, -!1\$, \$) %4474 / ? ! \*% ) & / , !+) 8\* \$! -2)8, 1! (# \$! ' (2-7!  
+ \$)8 / -5!

"# \$! O%8, !48O8% (8/ , ! / .!(#8' !' (2-7!8' ! (# \$! %6%84%&88(7! / .! -% (5! " # \$!) \$' 24(! \*% , !&\$!8O+) / 6\$-! &7!2'8, 1!  
\*% # .4 / ? ! ' (% (\$O\$, (9! \* / 6\$)8, 1!O /) \$! . /) \$' (! \* / O+%, 8\$' !%, -!O /) \$! \$B(\$ , - \$-! ' \$)8\$'5! " # \$) . /) \$9! O /) \$!  
? /) G!8' !) \$: 28) \$-!( / +) / 68- \$! O /) \$! % \*\*2) (% (\$! \$' (8O% (\$'9! - \$6\$4 / +1%, !8, -2' )8%4! O \$% '2) \$9! '2\* #!% ' !8, - \$B9!  
. /) ! (# \$! . /) \$' (!8, -2' )7!8, !W\$? !X\$%4%, -9!%, -! \* / O+%) \$! ?8 (#! / (# \$!) 4%, -! &2'8, \$' '\$' ! ( / ! .2) (# \$!) \$B+4%8, !  
4%, -!2' \$! \*#% , 1\$'5!

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(1@-%, !&%&' (/!@!) \* / +0!  
&. !&. -%+)2) ! \$&1 () ) (% ? \$- / 2. O! \$&! > EB\$' \*! ? \$0) !- \*! % \$1' !" (3!# (-%-. /!4\$' \*) !

!

R6\$)!#%4! / .!W\$? !X\$%4%, -F' !%, , 2%4!#%)6\$' (!?%' ! \$B+ /) (\$-!% ' !4 / 1' !8, !ed [ b!POZ!9!ed [ `Q5! " # \$!4%)1\$! \*%4\$!  
%, -! \$\* / , / O8' !8O+ /) (% , \*\$! / .!4 / 1! \$B+ /) ('! #81 #481# (' ! (# \$!8O+ /) (% , \*\$! / .!\$. .8\*8\$, (!+ /) (! / + \$) % (8/ , '5!  
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H/%-8, 1!#%-(#\$/4/, 1\$'(!+)-2\*(86\$!\$4\$O\$, (!8O\$9!./4/?\$-!&7!'48, 18, 1!%, -!(%4478, 19!%, -!4%'(47!(#\$/i\*%)(8, 1!\$4\$O\$, ('F5!!

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H/%-8, 1!?'!2, 8, .42\$, \*\$-!&7!+!)(!&2(!%..\*\$(\$-!&7!4/1!1)%-\$9!4\$, 1(#9!/+\$)%(/)!G849!%, -!(#\$/8O\$/!-!-%75!''%4478, 1!?'!'81, 8.8\*%, (47!-8..\$)\$, (!&\$(?\$\$, !(#\$!(#)\$\$\$+!)(?!?8(#!O%)'-\$, !Z/8, (!.%'(\$'(!%, -!''%2)% , 1!'4/?\$'(5!348, 18, 1!?'!': 28\*G\$'(18, !g8' &/), \$!%, -!.%'(\$)!?#84'(14/%-8, 1!&\$4/?M-\$\*G!%, -!-2)8, 1!(#\$/-%7(8O\$5!

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>%(8, 1!\$4\$O\$, ('!?\$)\$!#\$\$%6847!8, .42\$, \*\$-!&7!-8'(% , \*\$!(/!/!)!)/O!4/1!'(%\*G!./)!%4!./2)!+!/'5!

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''%2)% , 1!-8'+4%7\$-!(#\$/!%'(\$'(!#8'(/)8\*!1)''!4/%-!)(!Pf; 3O#K#/2)Q!7\$(!(#\$/4/?\$'(!+)-2\*(86\$!\*7\*4\$(8O\$5!g)''!4/%-!)(!8'!8, .42\$, \*\$-!&7!-\$4%7'9!6/42O\$!+\$)!\*7\*4\$9!%, -!+)-2\*(86\$!\*7\*4\$(8O\$5!''#\$/

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]dd!8, -\$B!%&/6\$!%, -!&\$4/?!(#Z3Z!\$'(8O%(\$!?'#8\*#)!)\$'24(\$-!8, !8(!/6\$)M+)\$-8\*(8, !1]dd!8, -\$B!&7!  
d5[\O^K#K7)!/, !%6\$)%1\$5!''#Z%4O\$)!2).%\*\$!?'!-\$O\$-!(/!1\$, \$)%(\$!+4%2'8&4\$!%, -!%++)/+)8%(\$!  
\$'(8O%(8/, '!8, !&/(!O\$%'2)\$'!/.!'8(\$!+)/-2\*(868(75!

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%-' ? ('+,!&"-"2-!.)\*/60!!  
9#(14(' &\$' ? - . "(!&5%"A)!&7%\$. ()!2. !-!<-/2- \* -!42. (14' \$/1''\*2\$. !%\$' ()\*!!

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Z)/&4\$O!g\$, \$(8\*%4718-\$, (8\*%4!\*4/, \$'!/.!/&.\$)('O&'1'!)!&\$8, !1+4%, (\$-!8, !W\$?X\$%4%, -!+4%, (%(8/, !  
./)\$'('5!''#\$)\$!#%6\$!&\$\$, !O%, 7!\*4/, %4!()8%4!\*%)8\$-!/2(!!#/?\$6\$)!(#\$)\$!8'!%!?'\$%G, \$''!8, !+2&48'#\$-!  
48(\$)%(\$2)!2)/2, -8, !!(#5!+\$)./)O%, \*\$!/.!'4/, \$'!8, !+)/-2\*(8/, !&4/\*G'5!!

O\$(#/-!<86\$!\*/O+%)8' /, '!8, !./2)!/.!Z%, !Z%\*!</)\$'(!Z)/-2\*(!+)/-2\*(8/, !./)\$'(!?!)\$!O\$%'2)\$-5!  
''#)\$!\*/O+%)8' /, '!?)\$!O\$%'2)\$-!%(!%1\$!C5b!7\$%)!'/4-!%, -!(?/!?)\$!O\$%'2)\$-!%(!^5b!7\$%)!'/4-5!  
''#\$)\$!?)\$!8B!</)\$'(!g\$, \$(8\*!'\*4/, \$'!%, -!(#)\$!\$!-8..\$)\$, (!\*/ , ()/4M+/448, %(\$-!'\$\$-4/('!O\$%'2)\$-!8, !  
(#\$'\$!\*/O+%)8' /, '5!Y%\*#!\*/O+%)8' /, !#%-!%1-8..\$)\$, (!, 2O&\$!%, -!'\$4\$\*(8/, !/.!'\$\$-4/('5!''#\$)\$!?)\$!\$!  
'8B!-8..\$)\$, (!)8('!O\$%'2)\$-!./)!(#\$(!)\$!'M!-8%O\$(\$)!%(!&)\$%'(!#81#(!/6\$)!&%)G9!#81#(9!\*/2'(8\*!  
6\$4/\*8(79!')81#(, \$''9!&)% , \*#8, !1#%&8(9!%, -!O%4./)O%(8/, 5!!

''#\$!-8..\$)\$, (!)8('!?)\$!\*/O+%)\$-!&\$(\$?\$\$, !(#\$!'\$\$-4/('!8(#8, !%\*#!\*/O+%)8' /, 5!''#\$!-8..\$)\$, \*\$'!  
8, !6%)8(8/, !./)!-8%O\$(\$)!(!&)\$%'(!#81#(!%, -!O/-242'!/.!4%'(8\*8(7!?)\$!\*/O+%)\$-!&\$(\$?\$\$, !\*4/, \$'!  
%, -!\*/ , ()/4M+/448, %(\$-!'\$\$-4/('5!<8, %4479!(\$!)\$'24('!&7!\*4/, \$!./)!(#\$(!8('9!B\$\*42-8, !1#81#(9!?)\$!\$!  
\*/O+%)\$-!(/(!#81B+\$\*(\$-!+\$)./)O%, \*\$!2'+48\$-!&7!</)\$'(!g\$, \$(8\*5!!

S\$'24('J!''#\$)\$!?)\$!-8..\$)\$, \*\$'!8, !+\$.)/O%, \*\$!&\$(\$?\$\$, !'\$\$-4/('5!</2)!\*4/, \$'!+\$.)/O\$-!?'44!%\*)/'!  
%!)%, 1\$!/.!()8('5!R, \$!4/, \$!+\$.)/O\$-!?'44!8, !(\$!^5b!7\$%)!'/4-!&4/\*G'!&2(!, /(!8, !(#\$!C5b!7\$%)!'/4-!  
&4/\*G'5!R, \$!4/, \$!-8-!, /(!+\$.)/O!?'44!8, !8L\$!%, -!'(8.., \$'5!>4/, \$'!?)\$!81, 8.8\*%, (47!4\$''!6%)8%&4\$!  
(#%, !\*/ , ()/4M+/448, %(\$-!'\$\$-4/('!./)!-8%O\$(\$)!(!&)\$%'(!#81#(!&2(!, /(!./)!O/-242'!/.!4%'(8\*8(75!''#\$!  
+\$.)/O%, \*\$!/.!'\$%\*#!\*4/, \$!8, !Z%, !Z%\*!</)\$'(!Z)/-2\*(!./)\$'(!?'%!6\$)7!'8O84%)!/(!(\$!B+\$\*(\$-!  
+\$.)/O%, \*\$!+)/68-\$-!&7!</)\$'(!g\$, \$(8\*5!!

AO+48\*(8/, 'J!''#\$)\$!%)\$!4/, \$'!(#%(!\*%, !+)/-2\*\$!-\$'8)\$-!78\$4-9!'(8.., \$''!%, -!./)O5!>4/, \$'!?'844!+)/68-\$!  
%!O)/\$!2, 8./O!\*)/)+18, !-8%O\$(\$)!(#%, !\*/ , ()/4M+/448, %(\$-!'\$\$-4/('5!Z%, !Z%\*!</)\$'(!Z)/-2\*(!\*%, !)\$47!  
/, !</)\$'(!g\$, \$(8\*!+)\$-8\*(8/, !/.!'4/, %4!+\$).)/O%, \*\$!%!'!%128-\$!(/!+\$).)/O%, \*\$!8, !(#8\$!./)\$'('5!!

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%-' ' (%!,!&? - . /-!.)\*\*B0!  
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/, ! (#\$' \$! ' 81, 8.8\*%, (! 6%)8%&4\$' ! 8(! ?%' ! . /2, -! (#%(! (#\$! TU@! %, -!, 2O&\$)! /!)%O8\* /), ' ! ?\$)\$! , /(! '81, 8.8\*%, (9!%, -! /! /, 47! (#\$! ; WRV; !)\$' 24(' ?\$)\$! (%G\$, !8, (/!%\*\* /2, (! ./)!(#\$' \$!6%)8%&4\$' 5!W/! ' 8, 14\$! '\$\$-4/(!?'% ' ! . /2, -!(/!&\$! /2(+\$.)/)O8, 1!(#\$! /(#\$)' ! ./)!%4!() %8(' 9!%, -! /!() %-\$ /..!#% -!(/!&\$! O%-\$! 8, ! /)-\$)! /(-8' \* /6\$)! (#\$! &\$' (! '\$\$-4/(/!&\$! +4%, (\$-! /, !(#\$! ' 8(\$5!!

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> /, \*42' 8/ , ' !

"%) - \$ / .. ! ?\$)\$! O%-\$! 8, ! /)-\$)! /(!.8, -!(#\$! '\$\$-4/(!&\$' (! ' 28(\$-!(/!&\$8, 1!+4%, (\$-! /, !(#\$!)()8%4! ' 8(\$5! "'#8' ! ?%' ! . /2, -!(/!&\$! '\$\$-4/(! ]Ce! ?#8\*# !#%' !% !g<! )%(8, 1! / .!e^! ! ! /, \$! / .!(#\$! #81# \$)! )%(8, 1' !+4%, (\$-! 8, !(#\$!) ()8%45! "'#\$)\$! ?\$)\$! 9!# / ?\$6\$)9! '\$6\$)%4! 48O8(%8/ , ' ! . /2, -! ?8(#! (#8! )()8%49! (#\$! O%8, !&\$8, 1!(#%(! , /(! \$6\$)7! +4/(!\* /, (%8, \$-! `!)\$ \$' 9!%, -!(#\$)\$! \* /24-!&\$! + / ' ' 8&4\$! 8' 2\$' ! ?8(#! (#\$! 16\$4 / \*8(7! -(%5! "'#\$' \$!%)\$! -8' \*2' '\$-! 8, !O/) \$! - \$+ (#! 8, !(#\$!) \$+ /) (5!!

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7-% " 1%-\*2. O! \*# (IB\$\* (. \*2-%12. "" (-) (12. !P !)\* (?! @-%1 (!\*# ' \$10#!) (%(" \*2\$. !&\$' !#20# (' !) \*2&&. ())!

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W\$? !X\$%4%, -11)/? , ! /&. \$) (, ' O&' 1' !8' !48O8(\$-!8, !8('!%++48\*%(8/ , !./)! ' ()2\*(2)%4!+2)+ / '\$' !&7!8(' ! (8.., '\$' ! -\$ .8\*8\$, \*8\$' 5! "'#8' ! -8' '\$) (%8/ , !%8O' ! (/! \$' (8O%(\$! + /(\$, (8%4! 8O+ )/6\$O\$, ('! 8, !' (\$O! 6%42\$! (#) /21#! '\$4\$\*(8/ , !./)!8O+ )/6\$-! ' (8.., '\$' '5! ; !, \$ ?! O\$ (# / -! /! O / - \$4! %, -! 6%42\$! 6/42O\$' ! /! ' )2\*(2)%4! ? / -! 1)%-\$' ! ?8(#8, !%!' (\$O! ?%' !2' \$-!(/! \*4\*24%(\$! (#\$' \$!6%42\$! 8O+ )/6\$O\$, ('5! T%(!./)! \$%\*#!' (\$O! ./) /O!%' (% , -!8, !j %8, 1%) /% !< /) \$' (!&\$-! ./)!8O+ )/6\$-! ? / -! : 2%48(7! ?%' !2' \$-!(/! +\$) ./) O! (#8' !%, %47' 8' 5! "'#8' ! -(%! ?%' ! ./) /O!%' ! (% , -!&)\$-! ./)!8O+ )/6\$-! ? / -! : 2%48(7! %, -!8, \*42-\$-!8, ./) O%(8/ , ! /, !(#\$! ' (8.., '\$' '9! -\$ , ' 8(7! %, -! ?8- (#! /! \$%\*#!1) / ? (#)8, 1! ./)! \$%\*#!' (\$O5! "#\$! -(%! ?%' !8, !(#\$! ./) O! /! \* /) \$' 5! @ \$81# (1%, -! 6/42O\$! -(%! ?%' ! , /!) \$\* /) -\$ -!%, -!(#\$)\$. /) \$! , \$-\$-!(/!&\$! O / - \$4\$-5! "#\$! 6/42O\$' ! /! O3g\9! O3g [ [! %, -! O3g [ ]! ? / -! ?\$)\$! \$' (8O%(\$-!&7! O / - \$48, 1!(#\$! '\$O! 6/42O\$! ! (#\$! %1\$! ?#\$ , ! ? / -! 8' !+) / -2\*\$-! (#%(!8' ! (8..! \$ , /21#!(/! : 2%48.7! ./)! \$%\*#!1)%-\$5!!

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"#\$! O%E/)8(7! /! ' (\$O' !#%-!O\$)\*#%, (%&4\$! 6/42O\$' !&\$ (?\$\$, ! [Me5bO#! ?8(#! (#\$! 4%)1\$' (!' (\$O' !\* /, (%8, 8, 1! ]5' O#5! ; 6\$)%1\$! ' (8.., '\$' '!)%, 1\$-!&\$ (?\$\$, !b5egZ%!, -! [ [5] gZ%! ?8(#! (#\$! ' (% , -!%6\$)%1\$!&\$8, 1! \5CgZ%5! "#\$)\$! ?%' ! , /!) \$4%(8/ , ' #8+!&\$ (?\$\$, !%6\$)%1\$! ' (8.., '\$' '!)%, -!O\$)\*#%, (%&4\$! 6/42O\$! 3(\$O! 6%42\$' ! ?\$)\$! . /2, -!(/!)%, 1\$!&\$ (?\$\$, !o` dM0 [ ] [KO#! ?8(#! (#\$! ' (% , -!%6\$)%1\$!&\$8, 1! oa [KO#5! "'#\$! [d! O / ' (16%42%&4\$! '\$O' !#%-!%!( / (%4! '\$O! 6%42\$! o] [ \! (?8\* \$! (#%(! /! ! (#\$! ' (% , -!%6\$)%1\$! Po [b^05! "'#\$! O / ' (16%42%&4\$! '\$O! PoC [ [Q! '# / ?\$-!%!( [ `d\_! 8, \*)\$%' \$! 8, !' (\$O! 6%42\$! ./) /O! (#\$! %6\$)%1\$5! "'#\$! 8, \*)\$%' \$' ! 8, !6%42\$KO#! ?\$)\$!

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; '!/.led[\9!a\\_!/(#\$(+2, \$-4/1! 2++47!?'! /4-!-/O\$' (8\*%47!?'#84\$(#)\$)O%8, 8, 1le\_!?'!\$B+/\$)(\$-5!  
A, !(#\$!'%O\$!7\$%)9!CC\_!/.!(#\$(2, +)2, \$-4/1! 2++47!?'! /4-!-/O\$' (8\*%47!?'#84\$(#)\$)O%8, 8, 1!bc\_  
?'!\$B+/\$)(\$-5!'"#8! 211\$' ('!(#%!(#\$(O%8, !/2(4\$(!./)!+2, \$-4/1! 18'!(#\$(!-/O\$' (8\*!O%)G\$(9!?'#84\$(#\$(  
O%8, !/2(4\$(!./)!2, +)2, \$-4/1! 18'!\*2))\$, (47!'+48!(&\$(\$?\$\$, !(#\$(!-/O\$' (8\*!%, -!\$B+/\$)(!O%)G\$('5!; 4!+24+!  
4/1!%)\$!\*2))\$, (47!&\$8, 1! /4-!(/!(#\$(!-/O\$' (8\*!O%)G\$(5!!

T/O\$' (8\*!\*2' (/O\$)'!%)\$!68(%4!8, !(\$)O'!/.!' \$48, 1!(#\$(4/1!1!)%-\$!O8B!+)/-2\*\$-!./)/O!(#\$(!()2' ('!\$' (%(\$5!  
>2))\$, (47!(#\$(%)\$!#)\$!O%8, !+)2, \$-4/1!\*2' (/O\$)'9!(?/!O%8, !2, +)2, \$-4/1!\*2' (/O\$)'!%, -!(?/!  
O%8, !+24+4/1!\*2' (/O\$)'!4/\*%(\$-!8, !%, -!%) /2, -!(#\$(!>\$, ()%4!W/)(#!A' 4%, -5!!

U%' \$-!/, !4%, -!\$B+\$\*(%8/, !6%42\$!(#\$(?/!48.(!+)2, 8, 1!)\$18O\$!8'!(#\$(O/'(+) / .8(%&4\$!)\$18O\$!/, !%4!./2)!  
'8(\$'!%, %47'\$-!P4/?9!O\$-82O9!#81#!%, -!6\$)7!#81#!+)/-2\*(868(705!'"#\$(!-8..\$)\$, \*\$!8, !4%, -!\$B+\$\*(%8/, !  
6%42\$!&\$(\$?\$\$, !(#\$(?/!48.(!+)2, 8, 1!%, -!2, +)2, \$-!)\$18O\$!8'!O8, 8O%4!/, !4/?!(/!O\$-82O!+)/-2\*(868(7!  
'8(\$'5!'"#8!-8..\$)\$, \*\$!8, \*)\$%'\$'!%'!8(\$!+)/-2\*(868(7!8, \*)\$%'\$'!P#81#!%, -!6\$)7!#81#09!?'#8\*#! 211\$' ('!(#\$(!  
+)2, 8, 1! #/24-!&\$!\*/ , .8, \$-!(/!(#\$(!#81#!+)/-2\*(868(7! 8(\$'!%'!(#8'!1\$, \$)(\$'!%&\$(((\$)! .8, %, \*8%4!)\$2), !  
./)!+2, 8, 1!)\$18O\$'5!'"#8!8, 6\$'(O\$, (!8, !+)2, 8, 1!8'!\$B)O\$47!'\$, '8(86\$!(/\*#%, 1\$'!8, !+)2, \$!4/1!+)8\*\$!  
%, -!(\$, -8, 1!\*/' ('9!78(#!O8, /)!\*#%, 1\$'!8, !\$%\*#!6%)8%&4\$!#%68, 1!%!'81, 8.8\*%, (!8, .42\$, \*\$!/, !(#\$/6\$)%4!  
+)/.8(%&848(75!'"#\$(#)\$!48.(!)\$18O\$!8'!(#\$(4\$%'(+) / .8(%&4\$!)\$18O\$!?'#8\*#!'2+++)/('!#\$(!()2' ('!-\$\*8'8/, !(/!  
'#8.(!(/!%!O/)\$!+)/.8(%&4\$!)\$18O\$!8, led[C!Pe!48.(!+)2, \$05!'"#8!%, %47'8'!#%'!%) (8.8\*8%47!.%6/)\$-!(#\$(?/!  
48.(!)\$18O\$9!%'!4/1!+)8\*\$'!-!/ , /(!%\*\*/2, (!./)!(#\$(!&\$(((\$)!+2, \$-4/1!8, -\$B!(#\$(!8'!%'#8\$6\$-!2, -\$)!(#\$(!  
(#)\$!48.(!+)2, 8, 1!)\$18O\$5!!

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%%- . . (' +, !5

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""#\$! 8, .42\$, \*\$! /.! ' (/ \*G8, 1! %, -! 1\$, /(7+\$! /, ! %\*/2' (8\*! 6\$4/\*8(7! \*/))/&/)%(\$! /(#\$!)\$' \$%) \*#! %, -!  
8, -8\*%(\$! (#\$!+/(, (8%!. /)!(\$!8, \*/)+/)% (8/ , !/ .!#'\$ '\$!.%\*( /)' !8, (/!' 8468\*24(2)%!)\$18O\$' !%, -!O/- \$4'!( /!  
#\$4+!8O+)/6\$!(#\$!\* /)\$?// -!' (8., \$ ' !/ .!)% -8%(!+8, \$5!

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%%12\*)? - ,! : - . . -#!2=.) \*//0!

4(' "(B\*2\$. )!\$&! - . /!, -' ' 2(')!\*\$! \*#(11)(\$&!% -?2. -\*( /!@(. (( ' !%1? , ( ' !&\$' !)' \*' 1''\*1' -%! -BB%2'' -\*2\$. )!!2. !  
)2. O%(8)\*\$' (+12. /1)\*\* 2-%!, 12%/2. O)!

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H%O8, %(\$-!6\$, \$\$)!42O&\$)!PHVHQ!8'!, /(!\*2)\$, (47!%!+)\$.\$)\$-!O%(\$8%!. /)! ' ()2\*(2)%4!%++48\*(8/ , '!8, !  
, /, M)\$' 8-\$, (8%4!\* /, ' ()2\*(8/ , !8, !W\$? !X\$%4%, -5!''#8'!' (2-7!\$B+4/) \$'!(#\$!+\$)\*\$+(8/ , '!%, -!%((8(2-\$'! / .!  
\$, 18, \$\$)' !%, -! : 2%, (8(7!' 2)6\$7/)'! ?8(#!)\$' +\$\*( /!(#'\$!' ()2\*(2)%4!2' \$!/.! ?// -!8, !' 8, 14\$M' (/)\$7!8, -2' ()8%4!  
&284-8, 1'5!

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"#\$!)\$'24(!8, -8\*%(\$-!(#%(!&7!%1\$!e`9!4%(\$)!(#8, , 8, 1!#%-!'81, 8.8\*%, (47!80+)/6\$-!(#\$!, 20&\$)!/!.  
%\*\$+\$+(%&4\$!\*)/+)(\$\$!%(!#%)6\$'(!%1\$N!(#\$!+)/+)(8/, !/!)(\$\$!(!#%(!O\$(!#\$!O%B8O2O!&)% , \*#!-8%O\$(\$!  
): 28)\$O\$, (!./)! 'O%4MM&)% , \*#! '%?4/1'!P3!1)%-\$Q!8, !W\$?!X\$%4%, -!/.!^!\*ON!%, -!'(% , -!2, 8./)O8(75!  
; , %47'8'!/ .!S8\$, \$G\$F'!P[a]]Q! (% , -!-\$ , '8(7!8, -\$B!P3TAQ9!)\$6\$%4\$-!(#%(!#8, , 8, 1!%(!%1\$!`!-8-!(#\$!&\$'(!E/&!  
/+(8O8L8, 1!'(% , -!-7, %O8\*'5!T\$'+8(\$!-8..\$)\$ , \*\$'!8, !(\$\$'!%\*(/)'9!(\$\$!(8O8, 1!/.!(#8, , 8, 1!#%-!, /!  
'81, 8.8\*%, (!8O+%(!/, !HYV5!!

</)\$'(!O%, %1\$)'!O%7!%4'/?8'#!(/!\*/ , '8-\$)!8(\$9!(#8, , 8, 1!8, (\$ , '8(79!'%. \$(79!\*%)&/, !'\$: 2\$'()%(8/, 9!%, -!  
4/1!: 2%48(7! ?#\$, !-\$(\$!)O8, 8, 1!(\$\$!/+8O%4!(8O8, 1!/.!(#8, , 8, 15!g)/?(#!)%(\$!6%)8%&848(7!%\*)/'!W\$?!  
X\$%4%, -!O%G\$'!8(!-8..8\*24(!./)!O%, %1\$)'!(/!/+8O8L\$! (#8, , 8, 1!'\*\$-\$24\$'!/, !-8..\$)\$, (!'8(\$'5!  
"#\$/)\$(\$%4479!%&\$((!%)4(\$), %(86\$!(/!'(% , -%)8L\$-\$!4\$\*\$ (8/, !%1\$!'O%7!&\$!(/12'\$!3TA!%'!%, !8, -8\*%(/)!/!.  
\*/O+\$8(8/, !&\$(?\$\$, !)\$5!'#8'!\*%, !%\*(!%'!%!(//4!(/18, ./)O!(\$\$!(8O8, 1!/.!(#8, , 8, 15!!

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: -, ('AS' . ,!22\*"#(%%!) \* /)0!  
>@-%1-\*2\$. !&\$!1' ' ( . \*!, -'A!-. /!\*-B('!(O1-\*2\$. )!&\$'!E 12. !" (3!#(-%-. /!

! 2\$7' 89+1\$): 8%4%&O''' !#%'!&\$\$, !()8%4\$-!./)! , %(2)%447!-2)%&4\$!68, \$7%)-!+/'(1+)/-2\*(8/, !8, !W\$?!X\$%4%, -!  
-)74%, -'5!W/!%\*2)%(\$!(%+\$)!%, -!6/42O\$!\$: 2%(8/, '!#%6\$!&\$\$, !6%48-%(\$-!8, !W\$?!X\$%4%, -!./)!(#8'  
'+\$\*8\$'3(A, (\$)8O!&%)G!%, -!(%+\$)!\$: 2%(8/, '!Pg/)-/, !\$(!%459![aaaQ!#%6\$!&\$\$, !6%42%(\$-!%'!(\$\$'!%)!(\$\$!  
/, 47!\$: 2%(8/, '!./)!2\$7' 89+1\$): 8%4%&O''' (%6%84%&4\$!8, !W\$?!X\$%4%, -5!!!

!!!!U%'\$-!/, !)\$\*\$, (47!O\$%'2)\$-!W\$?!X\$%4%, -!-%(!./)/O!+\$)O%, \$, (!%'O+4\$!+4/('!8(!8'!%+%)\$, (!#%(!  
\*2))\$, (!&%)G!%, -!(%+\$)!\$: 2%(8/, '!&/(#!/6\$)M+)\$-8\*(!&%)G!(#8\*G, '\$'\$'!%, -!/6\$)M&%)G!-8%O\$(\$)'!4/, 1!  
(\$\$'(\$O!)\$'+\$\*(86\$475!''#\$!-%('%\$!\*/44\$\*(\$-!/6\$)!(\$\$!'2OO\$)!ed[[K[e!8'!4%)1\$!\$, /21#!(/!'2++/)!  
(#8'!)12O\$, (9!#/?\$6\$)!(\$\$!'%O+4\$!'8L\$!8'!, /(!4%)1\$!\$, /21#!(/!-\$6\$4/+!, \$?!&%)G!%, -!(%+\$)!\$: 2%(8/, '!  
-2\$!(/!4%\*G!/!.!2++\$)M'(\$O!-8%O\$(\$)!%, -!&%)G!(#8\*G, '\$'!'O\$%'2)\$O\$, ('5!

!!!!A(!8'!/ .!8, (\$)\$'!(/!\*/ , (8, 2\$!\*44\$\*(8, 1!-%(!8, !/)-\$)!(/!\*)\$(\$!%\*2)%(\$!&%)G9!(%+\$)!%, -!1)/?(!s!



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S\$' 24(16%48-8(7!?'9!#/?'\$6\$)9!)\$-2\*\$-\$!&7!(#\$\$!4%\*G!/.!()8%4!)\$+48\*%(8/, !%, -!)%, -/O8' %(8/, 5!''#8'!8'!(#\$\$!  
G\$7! 48O8%(8/, ! %, -! O%G\$'! 12%)%, (\$\$8, 1! 8O+)/6\$O\$, ('! %) \$! -2\$! (/! 8O+)/6\$-! 1\$, \$(8\*'! P, /(!  
\$, 68)/, O\$, (Q!+)/&4\$O%(8\*5!!!

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G-"A)\$ . ,!&? +!?!.) \* //0

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G\$. (),!7#-' %\$\*\*(!.) \*/\*0!

>)\*2? -\*2. O!\*#(!-. &%1(. " (!\$&!9#2. . 2. O!\$. !\*#(!<2)A!\$&!@2. /!(-? -O(!

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O%(% )8G8!./)\$' (!!)\$!\$6%42%(8, 1!(#\$!/+ (8/, !/!.!+)/-2\*(8/, !(#8, , 8, 1!8, !Y7)\$?\$4!./)\$' (9!>%, (\$)&2)79!W\$?!  
X\$%4%, -5!"#\$!./)\$' (!8'! 8(2%(\$-!/, !.4%(!(\$))%8, !%, -!8'!4/' \$!(/!(\$!O%)G\$(5!@/?\$6\$)9!Y7)\$?\$4!./)\$' (!#%'!  
%#!#8' (/)7!/.!&\$8, 1!-%O%1\$-!&7!?8, -!%, -!' /!(#\$)\$!8'!\*/ , \*\$), !(#%(!(#8, , 8, 1!(#\$!' (% , -' !8, !: 2\$' (8/, !?84!  
)\$' 24(!8, !8, \*)\$%' \$-!)8' G! /.! ?8, -! -%O%1\$5! 3(% , -! -%(! ?%'! \*/44\$\*(\$-!%, -!%!( /(%4! /.! \ [! +4/('! ?\$)\$!  
O\$%' 2)\$-!8, !f%, 2%)7!ed[d5!T%(!2' 8, 1!&/(!(\$!34\$, -\$), \$' '!P>)\$O\$)9!U/)/21#9!O\*j 8, , \$49!s!>%)(\$)9!  
[a\eq!, -!</)\$' (g; HY3!Pg)-8, \$)9!32%)\$L9!; \*#8O9!@%4\$9!s!W8\*/49!eddcO!O/-4'!#%6\$!&\$\$, !2'\$-!( /!  
%' '\$' !(\$!)8' G! /.! ?8, -!-%O%1\$5!U/(!O/-4'!\*/ , \*42-\$-!(#%(!%'! (% , -!%1\$!8, \*)\$%' \$-9!' /!-8-!(#!)8' G!  
/.! ?8, -!-%O%1\$!!&\$8, 1!\*/ , '8' (\$, (!?8(#!O%, 7!+2&48\*(8/, '!(#%(!' (%(\$! ?8, -!-%O%1\$!8'!O8, 8O8'\$-!&7!  
(#8, , 8, 1!%(!\$%)48\$)!%1\$'5!W/!\*/ , '8-\$)%&4\$!-8..\$)\$, \*\$'! ?\$)\$!8-\$, (8.8\$-!./!)!8' G! /.! ?8, -!-%O%1\$!&\$(\$?\$\$, !

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I 13-, -' -, ! \$- \* \$' 1!) \* / F0!

4' (/2''\*2\$. ! \$&! >E\*' -''\*2@(! 7\$. \*(. \*! \$&! E

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W%(2)%4! -2)%&048(7! / ! ? // - ! 8' ! #81 #47! ' / 21# (! . /) ! % ! , 2O&\$) ! / ! ? // - ! +) / - 2\* (' ! - 2\$! (/! (#\$! \$O\$) 18, 1!  
\* / , \* \$) , ! / 6\$) ! % , - ! (81# (\$ , 8, 1!) \$124% (8 / , ' ! / , ! (#\$! 2' \$! / . ! (/B8\*! +) \$' \$) 6% (86\$' 5! A, ! W\$ ? ! X\$ % 4% , - 9! 6%) 8 / 2' !  
? // - ! +) / + \$) (8\$' ! / . ! \$ 6\$) % 4! , % (2) % 447! - 2) % & 4\$ ! Y 2 \* % 47 + (2' ! ' + \$ \* 8\$' ! # % 6\$ ! & \$ \$ , ! 8, 6\$' (81% (\$ - ! 8, ! /) - \$) ! (/!  
+) / 68 - \$ ! + / (\$ , (8% 4! % 4(\$ , % (86\$' ! (/! > > ; ! P > / + + \$) ! > #) / O 8 2 O ! ; ) ' \$ , 8 \* Q ! () \$ % (\$ - ! (8 O & \$) ! / . !) % - 8% (\$ ! + 8, \$ 9! (# \$!  
? 8 - \$ 47! + 4% , (\$ - ! \* / O O / - 8 (7! ' + \$ \* 8\$' 5! Y B () % \* (86\$! \* / , (\$ , (! P Y > Q! 8, ! ? // - ! + 4% 7' ! % , ! 8 O + /) (% , (!) / 4\$ ! 8, !  
- \$ (\$) O 8, 8, 1! (# \$! , % (2) % 4! - 2) % & 048 (75! A, ! (# 8' !' (2 - 79! , \$ %) 8, .) % \$ - ! P W A S Q ! ' + \$ \* () / ' \* / + 7! ? % ' ! 2' \$ - ! (/! +) \$ - 8 \* (!  
(# \$! \$ B () % \* (86\$! \* / , (\$ , (! / . ! 23 ( : 8 % 4 % & O '' ! # \$ %) (? // - 5! '' # \$ ! Y > / . ! (# \$ ! ? // - ! + / ? - \$) ! ' % O + 4\$ ' !) % , 1 \$ - !

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3(/\*G8, 1!/.!ebdd!('\$O'!#%')%!\*#8\$6\$-!(##!#81#'\$'(!O/Y!(#)/21#/2(!(#\$!'(\$O!&2(!%4' /!#%-!(##!#81#'\$'(!  
1)%-8\$, (!\*#%, 1\$!8, !O<; !%, -!O/Y!?'8(#!-8'(%,\*\$!.) /O!(##!+8(#5!''#!#81#!'(/\*G8, 1!%4' /!#%-!(##!' O%4\$'(!  
TU@5!R, !%6\$)%1\$9! TU@!?'!e]5e\_!%, -!C[5a\_!4/?\$)!%(!ebdd!('\$O'!')%(#%, ! [ebd!('\$O'!#%')%!\*%, -!`eb!  
'('\$O'!#%')%!\*'\$' +\$\*(86\$475!!

7]Y[R3!>4/, \$!9!%!\*4/, \$!&)\$-!./)!4/?!O<; !%, -!#81#!&% '8\*!-\$, '8(79!#%-!(##!#81#'\$'(!O/Y5!R, !%6\$)%1\$!  
>4/, \$!]!#%-!%O/Y!(#%(!?'![]5d\_!#81#'\$)!(#%, !(#\$/(/#)!\*4/, \$(7+\$'5!>4/, \$!]!#%-!(##!4/?\$'(!)%-8%!  
1)%-8\$, (!\*#%, 1\$!/.!O<; !%, -!O/Y5!''#\$)\$!?'!1)\$%('\$'(16%)8%(8/, !8, !O/Y!&\$(?\$\$, !\*4/, \$(7+\$'!%(!`eb!  
'('\$O'!#%')%!\*5!''#\$!-8..\$)\$, \*\$!&\$(?\$\$, !\*4/, \$'!?'!4\$'!'!%(!ebdd!('\$O'!#%')%!\*5!''#8!'!211\$'(!(#%(!1\$, \$(8\*'!  
#%-!%1)\$%(\$)!\$..\$\*(!?'#\$, !\$, 68)/, O\$, (%!+)\$''2)\$!?'!O8, 8O8'\$-5!!

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@\$' A2. O!:

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"?/'8(\$'!?)\$!'(2-8\$-9!/, \$!8, !(\$!W\$4' /, !)\$18/, !%, -!(#\$/(\$!)!8, !(\$!O%)4&/)/21#!)\$18/, 9!W\$?!  
X\$%4%, -9!&/(#!'8(\$'!?)\$!4/\*%(\$-!?8(#8, !! \$7\$)#%\$2'\$)IW\$?!X\$%4%, -!A, \*!./)\$'(!\$'(%\$5!3(%,-8, 1!())\$\$!  
'(8., \$''!O\$%'2)\$O\$, ('!?)\$!)\$\*/)-\$-!8, !]d! +4/(!?8(#8, !\$%\*#! '(2-7!'8(\$!\*%+(2)8, 1!%)%, 1\$!/.!  
-8..\$)\$, (!/+B!'\*/)\$'!%, -!%4(8(2-\$'5!edd`!+)\$M#%)6\$'(!8, 6\$, (/)7!-%(!?%'!%, %47'\$-!?8(#8, !\$%\*#!'8(\$!  
(/!(\$'(!)\$\$.!)O!%, -!6%42\$!)\$4%(8/, '#8+'5!

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381, 8.8\*%, (!P+kd5dd[0!)\$4%(8/, '#8+'!?)\$!./2, -!&\$(?\$\$, !%4(8(2-\$!%, -!?// -: 2%48(7!P' (8., \$''09!())\$\$!



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B' \$/1""\*!

2\$7' 89+1\$)(4%)&1%' . ' (8'! /, \$! /.! (#\$! &)\$-\$, 1! /&E\$\*(86\$'! /.! WXT<A! PW\$?! X\$%4%, -! T)74%, -! </)\$' (!  
A, 8(8%(86\$' 05!>2))\$, (479!O/' (!/ .!(#\$!O%(\$)\$8%4!+\$4\$-!8, !(#\$!W\$?!X\$%4%, -!6\$, \$\$)!O%)G\$(!8'!/&. \$)(', ' O&' 1' (  
/.! ?#8\*#! (#\$! 4/?!' (8.., \$'!'! 8'! %, !8O+!)(%, (!-\$ .8\*8\$, \*7! 8, !+ )/-2\*8, 1!' ()2\*(2)%4! 6\$, \$\$)'5! 3/9! 8(! 8'!  
8, (\$)\$' (8, 1!(/!G, /?!(#\$!6%42\$!/.!+\$4\$, 1!23(4%)&1%' . ' (%'!8(!\*%, !+ )/-2\*\$!O2\*#!' (8..)\$!6\$, \$\$)'! ?8(#!(#\$!  
+\$4\$)!\* /)\$!+ )/-2\*\$-!8, (/!, %(2)%47!-2)%&4\$!+ /' ('!%'! !+ )/-2\*(5!!

; !()\$\$!-%(!?%'!%\*: 28)\$-!.) /O!WXT<A!/, !%!)8%4! 8(\$!7!>)%6\$, !S/%-!W/)(#!/.!U4\$, #8O9!W\$?!X\$%4%, -5!  
; !6\$, \$\$)!+ )8\*\$!-%(!?%'!%\*: 28)\$-!&7!' 2)6\$78, 1!fWH!Pf2G\$, !W\$?!X\$%4%, -!H(-505!"/1\$(\$)!?8(#!%!(%&4\$!  
-\$)86\$-!.) /O!48(\$)%2)\$!\*/6\$)8, 1!(#\$!6%42\$!)%, 1\$!/.!(#\$!8O+!)(%, (!6%)8%&4\$'!(#\$!' (2-7!4/G\$-!8, (/!%, -!  
%!O/-4\$ /, !S!3(2-8/9!(\$!6%42\$!/.!%!23(4%)&1%' . ' ()\$\$!?'!'! 8O24%(\$-9!(\$!' \$, ' 8(868(7!%, %47' 8'! /.!(\$!  
6%)8%&4\$'!?\$)\$!\*/ , -2\*(\$-!%, -!%!\* /O+%8' /, /! .!23(4%)&1%' . ' (% , -! /3(, ' O&' 1' (?\$)\$!- /, \$5!!

A(!8'!\*/ , \*42-\$-!(#%!(#\$!/2(!/ .!(#\$!6%)8%&4\$'!(\$' (\$-!8, !(\$!' (2-7!J!' (8.., \$'!'! +) / .84\$9!\*/ , 6\$)' 8/ , !)%8/9!  
6/42O\$()8\*' #)8, G%1\$9! 6\$, \$\$)!+ )8\*\$9!+\$4\$)!\*/)\$!' 8L\$!%, -!+ /' (!)\$18O\$'9!(\$!'\*/ , 6\$)' 8/ , !)%8/!8'!(#\$!  
O/' (!8O+!)(%, (!6%)8%&4\$5! =, -\$)!&% '\$!' \*\$, %)8/!8, !?#8\*#!%!\* /, 6\$)' 8/ , !)%8/! / .!d5^!?'!%'+48\$-9!(\$!  
6%42\$! / .! /, \$!23(4%)&1%' . ' ()\$\$! / .!ea5` \*O!TU@!8'!WXo[de! ?#84\$!%!)\$\$! /, 47! ?/)(#!WXoC[!%(!d5eb!





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, 2O&\$)! /.! ?\$\$- '!'+\$\*8\$'!)\$' \$, (!'2\*#!%'!E%87\$)(8' . '1\$)(%, -!C%1\$)(+"O\$. 7\$8' 1\$)3(F' 7,97' ,+\$)(  
O' 7,908%&0")(?% !%G\$7!' +\$\*8\$'!. /)!%44!+4/('!'(!"%O8, \$448!8, !\*42' (\$)!' [!%, -!e!&2(!#%-!%!O%)G\$-47!4/?\$)!  
+) \$' \$, \*\$!P8.1%, 70!8, !\*42' (\$)!' [!+4/(' 5!!

; 44!(#)\$ \$!\*42' (\$)!' ?\$) \$!-8' (8, \*(47!' \$+%)( \$-!%4/, 1!WOT3![!8, !(#\$/)-8, %(8/, (1)-12.#6TJET0q4ET0q5\$!37?(8)-2(()-1(#)-1

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YB+ /) ('! (/!j /) \$%!%, -!f%+% , !%) \$! () \$% (\$-! / , !%) ) 86%45!A. ! (# \$! eded! - \$%-48, \$! ' \$ (! &7! (# \$! Y, 68) / , O \$, (%! Z) / (\$ \* (8 / , ! ; 2 (# /) 8 (7! P ? # 8 \* # ! ) \$ : 28) \$ ' ! (# % (! %44! O \$ (# 74! & ) / O 8 - \$! O 2 ' (! & \$!) \$ \* % + (2) \$ - ! /) ! - \$ ' () / 7 \$ - ! . / 44 / ? 8, 1! . 2 O 8 1 % (8 / , Q! \* % , , / (! & \$! O \$ (9! (# \$ , ! % 4 (\$), % (86 \$! O \$ (# / - ' ! ? 844! & \$!, \$ \$ - \$ - ! (/! O \$ \$ (! + # 7 (/ ' % , 8 (% ) 7!

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@/O/1\$, \$8(7!/.!+4/('!/.!(#\$!'%O\$!)\$%(O\$, (!#%!'&\$\$, !+)/6\$-!(#)/21#!68'2%!/&'\$)6%(8/, '!%, -!  
; WRV; !%, %47'8'9! ?8(#!!. \$?!O8, /)!/2(48\$)'5!@\$(\$)/1\$, \$8(7!/.!6%)8%&4\$'9! ?#\$, !\*/O+% )8, 1!-8..\$)\$, (!  
O)\$%(O\$, ('9!#%'! '#/? , !(#%!(#\$!'(2-8\$-!%)\$%'!8, -\$-\$-! -8'+4%7! (2''/\*G! +\$-\$'(%4'9!%, -!(#%!(#\$'\$!  
+\$-\$'(%4'!#%6\$!-)%O%(8\*%47!-8..\$)\$, (!'/84!%, -!6\$1\$(%8/, !+ )/+\$)(8\$'!(#%, !'2))/2, -8, 1!%)\$%'5!''#8'  
4\$-\$'(!/-8..\$)\$, \*\$'!8, !+%'(/)%4!+)/-2\*(868(7!\*/ , ()8&2(8/, !&\$(?\$\$, !O)\$%(O\$, ('5!; 48, \$%)!O/- \$4!+)/6\$'  
(#%!(2''/\*G!\*/6\$)!%, -!(/(%4!' /84! ?%(\$)!\*/ , (\$, (!%)\$!)\$4%(\$-!P; -E5! S\$! c! d5b] [Q! ?#8\*#!%44/?'! (#\$!

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"#)/21#!(#\$!-\$6\$4/+O\$, (!/.!E/&!-\$'\*)8+(8/, '!%, -!+\$)' /, !'+\$\*8.8\*(8/, '9!8(!?'%'+/''8&4\$!(/!8-\$, (8.7!  
(\$E/&!)\$: 28)\$O\$, ('!%4/, 1!?'8(#!(#\$!+\$)' /, %4!%(O)8&2(\$'!%, -! : 2%48.8\*(8/, '!)\$: 28)\$-\$!&7!\$O+4/7\$)'9!(/!  
\$, '2)\$!\$O+4/7\$\$'!?\$)\$!\*%+%&4\$!/.!2, -\$)(%G8, 1!(#\$8!)/4\$5!

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"#\$)\$!8'!%, !8-\$, (8.8&4\$!1%+!?'8(#8, !(\$!4\$6\$4!/.!.!)O%4!\$-2\*(8/, !%O/, 1!\$O+4/7\$\$'5!R6\$)!#%4.!Pbb\_Q!  
/!(#\$!\$O+4/7\$\$'!#%6\$!4/?\$)! : 2%48.8\*(8/, '!(#%, !(#/'\$!)\$: 28)\$-!(/!#%6\$!2, -\$)(%G\$, !.2)(#\$)!./)\$'()7!  
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./)! .2)(#\$!) ()\$\$! 8O+)/6\$O\$, (! ?/)G! '#/24-! \*/ , '8-\$)! '\$4\$\*(8, 1! O24(8+4\$! .%O848\$'! &%'\$-! / , ! (#\$8)!  
&)\$-\$-8, 1!6%42\$!)%, G8, 1'!.!./)!1)/?('#!' O)%8, 9!-8%O\$(\$)!%, -!ORY5!!

"#\$! O)%8, !48O8(%8/ , !/!.! (#8'!' (2-7! ?%'! (#%(! (#\$!\$, 68)/ , O\$, (%4! \$..\$\*( '! / , ! (#\$! ()%8('! \*/24-! , /(! &\$!  
%' '\$' '\$-!%, -!(#\$)\$\$.!./)!\$.2)(#\$!)! (2-8\$'!/ , !23(1,&7' , +' (?// -!+ )/+\$)(8\$'!' #/24-!8, \*42-\$!O24(8+4\$!' 8(\$'!  
(/!%, %47' \$!(#\$' '\$!\$..\$\*( '5!!

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" 2)#,!%-%%\$. !.)\*)0



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2'0, 1! %, !%' '\$' ' /)0! \*%, ! &\$! ./2, -! (/! O\$%' 2)\$! ()\$\$! ()%, '+%)\$, \*79! 8(! 8'!)\$\*/OO\$, -\$-! (#%(! (#8'!

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6/42O\$'5!A(!8'\$B+\$\*(\$-!(#%!(#\$!>%,(\$)&2)7KI \$'(!>/'(!../)\$(! ?/)G./)\*\$!-\$O%, -! ?844! \*/ , ()%\*(!  
'81, 8.8\*%, (47!.) /O!ede]!! !edC]!%!)\$18/, %4! ?// -!%6%84%&040(7!)\$-2\*\$'5! /)G./)\*\$!-\$O%, -!8'\$B+\$\*(\$-!

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4' (/2''\*2. O!\*#(B' \$, -, 2%2\*+!\$&B' \$/1''2. O)'' 1''\*1' -!/? -''#2. (!O' -/(!\*2?, ('!&' \$? !%\$O! ? (-)1' (? (. \*!

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''#8'!)\$' \$%) \*#!\$B+4/)\$'!(# \$!%&88(7!/.!\*/ , ' ()2\*(8, 1!%O/- \$4!2'8, 1!4/1!6%)8%&4\$'!(/!+)\$-8\*(!&/%)!O/Y!  
?8(#8, !4/1'!/.!/&. \$)(, ' O&' 1' 5!''#\$!4/1!6%)8%&4\$'!\*/ , '8' (\$-!/.!%6\$)%1\$!' O%4! \$, -!-8%O\$(\$)%!\* /2' (8\*!  
6\$4/\*8(79!1)\$ \$, !-\$, '8(79!#\$%) (?// -!+\$)\*\$, (%1\$!%, -!)-8%4! +/'8(8/, !P)-8%4! -8' (% , \*\$!.) /O!1\$/O\$()8\*!  
\*\$, ()\$!/.!(#\$!4/105!''#\$!6%)8%&4\$'!?)\$!8, ()/-2\*-\$!-' 2\*\*\$' '86\$47!(/!\$6%42%(\$!(# \$!+)\$-8\*(8/, !\*%+%&88(7!/.!  
(\$!6%)8%&4\$'!/, !&/%)!O/Y5!''#\$!O/- \$4'!?)\$!%, %47' \$-!./)!&/(#!(/%4!8, \*/))\$\*(!1)%-\$!+\$)\*\$, (%1\$!%, -!  
(/%4!+/( \$, (8%4!6%42\$!4/' ' 5!

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''#\$!)\$' \$%) \*#!./2, -!(#(#!(\$ \$!' ?O84!O/- \$4!P%6\$)%1\$!3YT!%, -!)-8%4! +/'8(8/, O!?'!(\$!&\$' (!O/- \$4!%!  
+)\$-8\*(8, 1!(\$!4\$%' (!O/2, (!/.!8, \*/))\$\*(!(/%4!1)%-\$!%, -!6%42\$!4/' ' 5!''#\$!%- -8(8/, !/.!4/1!%\*/2' (8\*!  
6\$4/\*8(79!1)\$ \$, !-\$, '8(7!%, -!/)!#\$%) (?// -!\*/ , (\$, (!-8-!, /(18O+ )/6\$!(#\$!O/- \$4!+)\$-8\*(8/, !/.!&/%)!-!  
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9O)\*2. O!\*#(!%1. /-? (. \*-!\$ \$2%!?-+( ' )!.%\$?0!

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''#8'!' (2-7!\$B%O8, \$-!(#\$!)\$48%&88(7!/.!(\$!\$' (8O%(\$'!.!)Z)/.84\$!; 6%84%&4\$! I %(\$)!PZ; I O!%, -!Z/(\$, (8%4!  
S// (8, 1!T\$+(#IPZSTO!#\$4-! ?8(#!(#\$!<2, -%O\$, (%4!3/84!H%7\$)' !P<3HQ!1\$/M-%(%&% '\$5!; !)\$68\$?!/!.!(\$!-%!  
%, -!O\$(#/- '12' \$-!(/!\*/ , ' ()2\*(!(\$!<3H!?'% '12, -\$)(%G\$, !%, -!O24(8+4\$!8' ' 2\$'!?)\$!\$!8-\$, (8.8\$-! ?8(#!(#\$!  
-%(%&% '\$5!'' ?/!-%(\$' (!?)\$)!%'' \$O&4\$-!.) /O! /84!+8('!-21!(%)!%, 1\$!/.!4/\*%(8/, '!%\*)/' ' !W\$? !X\$%4%, -5!  
R, \$!-%(\$' \$(!\*/ , (%8, \$-!O\$%' 2)\$-!6%42\$'!.!)!&/(#!Z; I !%, -!ZST9! ?#84' (!(\$!/(#\$)!\*/ , (%8, \$-!ZST!%, -!  
' /84!(\$B(2)\$!6%42\$'!.!) /, 475!W/12' \$.24!)\$4%(8/, '#8+!\*/24-!&\$!./2, -!&\$(\$? \$ \$, !(\$!<3H!\$' (8O%(\$'!%, -!(\$!  
O\$%' 2)\$-!6%42\$'!.!)!Z; I !/)!ZST5!A, (\$)6%4'!\$' (8O%(8, 1!(\$!48G\$47!)% , 1\$!/.!(\$!()2\$!6%42\$'!' \$4-/O!  
8, \*42-\$-!O\$%' 2)\$-!6%42\$'5! I #)\$!(\$!\$!8, (\$)6%4'!-8-!\*/ , (%8, !#!#81#!+ )/+ ) (8/, !/.!O\$%' 2)\$-!6%42\$'9!  
(\$7!?)\$)!(/!/?8-\$!(/!&\$!/.!+)\* (8\*%4!2' \$5!T%(!: 2%48(7!%' !8, -8\*%(\$-!&7!(\$!48, \$%1\$!/.!(\$!<3H!-%(!-8-!  
, /(!\*/))\$4%(\$! ?8(#!&\$(\$)!ZST!/)!Z; I !\$' (8O%(\$'5! I #)\$!\$' (/ , 1!8, .)\$ \$, \*\$'!\*/24-!&\$!O%-\$!./)!ZST!  
-%(%9! (\$ \$! \*/))\$4%(8/, '! /.( \$, ! \*/ , ()%-8\*(\$-!



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2'8, 1!%' (% , -%) -!+4/21#9!%&2' #!&/1!+4/21#!% , -(7, \$!#%)/?'5!Y' (%&48' #O\$, (!' 2\*\*\$' '9!%6\$)%1\$!#\$81#(!  
%, -!O%B8O2O!#\$81#(!?%)\$!2' \$-!%' 8, -8\*(/)'!(/!' '\$' '!(#\$! 2\*\*\$' '!'!-8..\$)\$, (!+)\$M'/?8, 1!\*24(86%(8/, !  
O\$(#/-'5!''#8'!(2-7!?'%!2, -\$)(%G\$, 18, !''8)/O/%, %!U2' #9!W/)(#!>%, (\$&2)75!''#\$!-%(!?'%!'\*/4\$\*(\$-!  
.) /O!%, !B8' (8, 1!)8%4! '\$(!2+!&7!3>ARW!8, !edd^5!@8' (/)'8\*%479!(\$!'8(\$!#%-!&\$\$, !B(\$, '86\$47!1)%L\$-!&7!  
&/(!'#\$+\$!%, -! \*%((4\$! &2(!1)%L8, 1!\*\$%' \$-!8, !eddb5!''#\$!)\$O/6%4! /!1)%L8, 1!+)\$''2)\$!4\$-!(/!(\$#!  
-\$6\$4/+O\$, (!/!.\$B())\$O\$47!4/, 1!%, G!1)%''!'?'%)-'5!''8)/O/%, %!U2' #!8'!, /?2, -\$)!%\*(86\$!\*/ , '\$)6%(8/, !  
O%, %1\$O\$, (5!

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''#\$!\$B8' (8, 1!)8%4!?'%!'bc!O!B!]`!O!%, -!\*/ , '8' (\$-!/.!'8B!-8..\$)\$, (!)\$%(O\$, (!?8(#!(\$)\$!)\$+48\*%('\$!/.!  
\$%\*#5! [B^!O\$()\$!+4/(!?%)\$!\$' (%&48' #-\$-18, !\$%\*#!/.!(\$!)\$+48\*%('\$'9!%, -!'\$\$-48, 1!?'\$)\$!8-\$, (8.8\$-!%, -!



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'8L\$B' !G, /?, !(/!#%6\$!%!' 81, 8.8\*, (!\$. \$\*(!/, !+)-2\*(8/, !%, -(#\$)\$./)\$!/?%'!%' '\$-\$-!./)18('!)\$4%(8/, '#8+!  
?8#(!(\$!+\$) ./)O%, \*\$!8, -8\*(/)'!%, -!8('!6%)8%(8/, !%\*)/''!(#\$!' (2-7!+\$)8/-5!

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A(!?%'!./2, -!(#%(!%4! (#\$!+\$) ./)O%, \*\$!8, -8\*(/)'!/?\$)! '81, 8.8\*, (47!-8..\$)\$, (!%\*)/''!/?\$G!8, !' (2-7!  
+\$)8/-5!@/?\$6\$)9!(\$'\$ \$!8, -8\*(/)'!%4!#%-!%' 81, 8.8\*, (!)\$4%(8/, '#8+!/?8(#!+8\$\*\$!' 8L\$!%, -!%)\$!(#/#21#(!(/!  
&\$!%)\$.4\$\*(8/, !/.!(#\$!8, \*)\$%' 8, 1!+8\$\*\$!' 8L\$!%\*)/''!(#\$!' (2-7!+\$)8/-5!W81#(!' #8.(!?%'!./2, -!(/!&\$!O/)\$!  
+)/-2\*(86\$!(#%, !-7!' #8.(9!#/?\$6\$)!(#\$)\$!/?%'!, /!-8..\$)\$, (!8, !+8\$\*\$!' 8L\$!(/!\$B+4%8, !(#8'5!'#\$!, 81#(!' #8.(!  
?%'!./2, -!(/!&\$!O/)\$!+)/-2\*(86\$!186\$, !4%)1\$)!+8\$\*\$!' 8L\$!'!%, -!(#8'!8'!(#/#21#(!(/!-)86\$!(#\$!-8..\$)\$, \*\$!  
8, !/6\$)%4!+)/-2\*(8/, !%\*)/''!(#\$!-7!%, -!, 81#(!' #8.('5!

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\$--\*\$&!(-@2/!&=.)\*/L0!!

&. !2. @()\*20-2\*\$!.!\$&!#(!?(-)1' (? (. \*-""1' -"+!-. /!B' \$/1"\*2@\*+!\$&!-!@-' \*-#!: 9: !+)6"!'B' '\$'())\$' !  
#(-/!

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H/1!+)/\*\$'' /)#!\$%-!#%6\$!&\$\*/O\$!8, \*)\$%' 8, 147!2' \$-!8, !W\$?IX\$%4%, -!PWXQ!./)\$' (!#%)6\$' (8, 1!/+)\$)(8/, '!  
(/! 8, \*)\$%' \$! +)/-2\*(868(7!%, -! 80+)/6\$! ?/)G\$)! '%.\$(75! A, ./)O%(8/, !)\$1%)8, 1! (#\$! O\$%' 2)\$O\$, (!  
%\*\*2)%\*7!%, -!+)/-2\*(868(7!/.!, \$?!)O/-4!+)/\*\$'' /)#!\$%-!8'!4808(\$-5!; !%)\$' 24(9!4/1!: 2%48(7!\*/ , )/4!  
Ph>Q!8'!\*%)8\$-!2(!/, !4/1'!(#%(!#%6\$!&\$\$, !O\$)\*#%, -8'\$-!&7!%!)/\*\$'' /)#!\$%-5!' #8'!(%G!%, !#%6\$!%!  
#81#!)8'G!./)!8, E2)7!./)O!O%, MO%\*#8, \$!8, (\$)\*\*(8/, 5!; !)\$, -!&\$(?\$\$, !' (2-8\$'!/?%'!(#%(!/4-\$)!O/-4!  
! %)(%#F!-8-!, /(!#%6\$! 2..8\*8\$, (!O\$%' 2)\$O\$, (!%\*\*2)%\*7!(/!%4\$68%(\$!(\$!)\$: 28)\$O\$, (!./)!4/1!h>5!A, !  
(#8'! (2-79)! ! %)(%#!@'@!`eb\*!+)/\*\$'' /)#!\$%-!/+)\$%(8, 1!8, !WX!/?%'!%, %47'\$-!./)!O\$%' 2)\$O\$, (!  
%\*\*2)%\*7!%, -!+)/-2\*(868(75!

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O\$%' 2)\$O\$, (!%\*\*2)%\*7!/?%'!\*/ , '8-\$)-!&7!O\$%' 2)8, 1!4/1'!./)!4\$, 1(#9!-8%O\$(\$)!%, -!&)%%, \*#!'8L\$5!; !  
\*/O+%)8' / , !/!(?/!O\$(#/-'!/.!+)/\*\$'' 8, 1!/?%'!%4' /!\*/ , '8-\$)-!(/!-\$(\$)O8, \$!O\$%' 2)\$O\$, (!%\*\*2)%\*79!  
+)/-2\*(868(7!%, -!+)/-2\*(8/, !\$. .8\*8\$, \*7!./)! (#\$!/?%7!4/1'!%)! -\$48O&\$-!%, -!O\$)\*#%, -8'\$-5!R, \*\$!  
1%(\$)\$-\$9!(\$!-%(!/?%'!(\$\$, !%, %47'\$-!(/!8-\$, (8.7!' 81, 8.8\*, (!\$. \$\*( '9!)\$, -'!%, -!)\$4%(8/, '#8+!&\$(?\$\$, !  
6%)8%&4\$'5!

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H\$, 1(#!O\$%' 2)\$O\$, (!/?\$)!#81#47!%\*\*2)%(\$!&2(!-8%O\$(\$)!O\$%' 2)\$O\$, (!/?\$)!\$!2, -\$)M\$' (80%(\$-5!A(!  
?%'!%' /! \$68-\$, (! (#%(!%4(#/#21#! (#\$)!/?%'!%&' /42(\$!%\*\*2)%\*79! (#\$)!/?%'!% #81#! 6%)8%&848(7! 8, !  
O\$%' 2)\$O\$, (!/?8(#!2, -\$)\$' (80%(8, 1!%, -!/6\$)\$' (80%(8, 15!U)%%, \*#!'8L\$!/?%'!%' /!./2, -!(/!#%6\$!%!  
' 81, 8.8%, (!8O+\*(!8, !)\$-2\*8, 14\$, 1(#!O\$%' 2)\$O\$, (!%\*\*2)%\*7!%, -!+)/-2\*(868(75!38, 14\$!+%'!+)/\*\$'' 8, 1!  
#%'! '81, 8.8%, (47! #81#)\$!+)/-2\*(8/, !\$. .8\*8\$, \*7! (#%, ! (?/! +%'!+)/\*\$'' 8, 19! %4(#/#21#! '8, 14\$! +%'!  
+)/\*\$'' 8, 1!#%-!#!#81#)\$!4\$, 1(#!\$))!%' /'8%(\$-!/?8(#!8!5!

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"#\$! ! %)(%#! @'@!`eb\*!+)/\*\$'' /)#!\$%-!#%!' &\$(\$)! O\$%' 2)\$O\$, (!%\*\*2)%\*7! (#%, !/4-\$)! O/-4!  
! %)(%#F'5! @/?\$6\$)9! 4/1'!%)\$! ' (84! \*2(! /2(M.'M'+\*! ?#8\*#!?844!): 28)\$!% 4/1! h>!(/!8-\$, (8.75!; !  
O\$%' 2)\$O\$, (! (\$\*# , /4/17! 8' .2)(#\$! 80+)/6\$-! 8, !+)/\*\$'' /)#!\$%- '9!%, -! 80+)/6\$O\$, (! (/! WXF!  
+4%, (%8/, !)\$' /2)\*\$! P8O+)/6\$-! ./)O! %, -! 'O%4\$)! &)%%, \*#8, 1Q! %)\$! )\$%48'\$-! %(! #%)6\$' (! %1\$9!  
O\$%' 2)\$O\$, (!%\*\*2)%\*7!%, -!+)/-2\*(868(7!/.!4/1!+)/\*\$'' /)#!\$%-!/?844!.2)(#\$)!8O+)/6\$5!

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\$" \$3. ,!: -?2)#!.)\*)0!

2-"#2. -, 2%2\*+!\$&!D8K(-' 8C%/!E 13\$\$/!

"#\$! W\$?! X\$%4%, -! (8O&\$)! O%)G\$(! 8'!' 2++48\$-!+)\$-/O8, %(\$47! &7! 4/\*%447M1)/?, ! /&. \$)(, ' O&' 1'5!; '!  
\$68-\$, \*\$-!&7! (8O&\$)!8O+!)(!-%(9!(\$!O%)G\$(!./)!1)/2, -M-2)%&4\$9!\*/4/2)\$-!%+%)%, \*\$!%, -!#81#!  
'(8.., \*\$!'!8'!2)\$, (47!, /(!' 2++48\$-!&7!4/\*%447M1)/?, ! (8O&\$)'5!A, !+%) (8\*24%)9!(\$)\$!%)\$!\*/ , \*\$), '!%&/2(!  
(\$)! (/B8\*8(7! /!>> M)O\$(\$-\$! /3(, ' O&' 1'!'!%'! /42(8/, !./)!1)/2, -! -2)%&848(75! Y2\*%47+('! #%6\$! &\$\$, !  
8-\$, (8.8\$-!&7!W\$?!X\$%4%, -!T)74%, -'!</)\$' (A, 8(8% (86\$!PWX<AQ!%'! 28(%&4\$!./)! 2++478, 1!(\$'\$!O%)G\$('5!

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"#)\$ \$! \$2\*%47+(! '+\$\*8\$! #6\$! &\$ \$, ! '\$4\$\*(\$-! ./)! -\$6\$4/+O\$, (! )8%4' 9! /, \$! /.! ?#8\*#! 8'! 2\$7' 89+1\$)(  
: 8%4%&O''' 5!"#\$!.8)' (!1\$, \$(8\*%447!8O+)/6\$-!23(: 8%4%&O''' !&\$\*%O\$!%6%84%&4\$!./)! %4\$!8, !ede [5!l #84\$! /O\$!  
)\$' \$%) \*#18, (!(#\$!?!// -! : 2%48(7!%, -!+)/\*\$' '8, 1!/(#8' !'+\$\*8\$!#%' !&\$ \$, !\*/ , -2\*(\$-9!(#\$!O%\*#8, %&848(7!  
/.!23(: 8%4%&O''' !?%'!2, G, /?, !%, -!(#\$!' 2&E\$\*(!/.!(#8' !?/)G5!!

A(! ?%'! ./2, -! (#%(! 23(: 8%4%&O''' ! O%\*#8, \$-! &\$(((\$)! (#%, ! /3(, ' O&' 1'!

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\*%, /+7!1%+!\*)\$(8/, !/)!2, -\$)+4%, (8, 1!78(#8, !%)%-8%(!+8, \$!\*%)&/, !, 2)'\$!\*)/!+\*%, !%\*#8\$6\$!(#8'!7#84\$!  
'(84!O%G8, 1!%)\$(2), !/, !(\$!4%, -/? , \$)F'!8, 6\$'(O\$, (5!!

; '!%!)\$'24(9!8(!8'+%)%O/2, (!(\$\$, \$?!+\$)O%, \$, (!./)\$'()7!%\*(868(7!(/!&\$!8O+4\$O\$, (\$-!'!+%)(!/!.!W\$?!  
X\$%4%, -F'!YO8'8/, '!")%-8, 1!3\*#\$O\$!PY"30!%4/?'!.!/)!\*%, /+7!1%+!\*)\$(8/, !(/!)%, '8(8/, !+\$)O%, \$, (!  
\*%)&/, ! +8, \$! ./)\$'(! (/! , %(86\$! ./)\$'(! (/! &\$(((\$)! -\$486\$)! /, ! (#\$! \*48O%(\$! \*#%, 1\$! O8(81%(8/, 9!  
\$, 68)/, O\$, (%49!'/\*8%4!%, -!\$\*/ , /O8\*!1/%4'!/.!(\$!R, \$!U8448/, !")\$\$'!Z)/1)%OO\$!%, -!Y"35!!

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\$#-' B,!E(\$' O2-!.)\*/D0!

>-' %+)(\$("2\$. !&!) \*2&&. ()!2. !<- /2- \*-!B2. (!

"#8'!(2-7!#%'!8, 6\$'(81%(\$-!(\$\$!+/'8&848(7!/.!\$4\$\*(8, 1!./)!(\$!\$?// -!+)/+\$)(7!/.!'(8.., \$''!%(!'8BM7\$%)'M  
/4-5!"#8'!8'!/.!8O+!)(%, \*\$!(/!(#\$!W\$?!X\$%4%, -!/ & \$)(, 'O&'1' (

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)\$1\$, \$)%(/, !%, -!\*/, \$!-\$, '8(8\$'5!A(!8'!)\$%48L\$-!(#%(!\*/, \$!\*/2, (8, 1!O%7!, /(!%4?%7'!&\$!.\$%'8&4\$9!'/!%!  
O/- \$4!?'!%4' /!-\$6\$4/+ \$-! ?8(#/2(!%!\* /, \$!6%)8%&4\$5!

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] [ ^!+4/(!?!)\$!%' '\$' \$-!/6\$)!(?/!)\$%'!8, !W\$4' /, !</)\$' ('!H(-5!3(%(\$5!''#\$!.8)'(!?'%!8, !g/4-\$, !T/?,'!  
</)\$'(!%, -!(#\$!' \$\*/ , -!8, !S%8! V%4\$7KO%)4&/)/21#!</)\$'('5!''), '\$\*(!+4/(!)\$+)\$' \$, (8, 1! d5ddb! /.!  
# \$\*(%)\$! ?\$)\$!2' \$-! ?8(#!)\$1\$, \$)%(/, 9!\*/ , \$!\*/2, ('9!%, -!'8(\$!%, -!O%, %1\$O\$, (!.\*(/)'!&\$8, 1!)\$\*/)-\$-!  
/, !+/(!'#\$\$( '5!

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>/, \$! .)\$: 2\$, \*8\$'! ?\$)\$! ./2, -!( /! '81, 8.8\*%, (47! 8, \*)\$%'\$! ?8(#! -\$\*)\$%'8, 1! )%8, .%449! 8, \*)\$%'8, 1!  
+\$)\*\$, (%1\$'! /.!&%)\$! )/2, -9! -\$\*)\$%'8, 1! 1/)'\$!%, -!&)/O! -\$ , '8(8\$'9! , /, !1)%, 8(\$!' /84! (7+\$'9!%, -!  
-\$\*)\$%'8, 1!%4(8(2-\$5!S\$1\$, \$)%(/, !.)\$: 2\$, \*8\$'9! ?#\$, !2'8, 1!%!O/- \$4! ?8(#!\*/ , \$!\*/2, (9! ?\$)\$! ./2, -!( /!  
'81, 8.8\*%, (47!8, \*)\$%'\$! ?8(#!(#\$!, 2O&\$)! /.!\*/ , \$!'!\*/2, (\$-9!8, \*)\$%'8, 1!'8(\$!8, -\$B9!-\$\*)\$%'8, 1!%4(8(2-\$9!  
%, -! -\$\*)\$%'8, 1! &4%\*G&\$)7!%, -!&)%\*G\$, ! #81#(5! S\$1\$, \$)%(/, !.)\$: 2\$, \*8\$'9! ?#\$, !2'8, 1!%! O/- \$4!

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%''\$''O\$, (5!''#4/\*(8/, !/./! +4/('!?'! 6\$)8.8\$-! 2'8, 1!%'! 2)6\$7M1)%-\$! gZ35! H\$%' (!': 2%)\$! 48, \$%)! )\$1)\$' 8/, !O/-4\$!?'\$)!-\$6\$4/+-\$-!(/!+)\$-8\*(!"3V!./)/O!H8T; S!\*%, /+7!O\$(08\*!./)!%'!%O+4\$!./!edC! +4/('5!''#\$!)\$1)\$' 8/, !'()\$, 1(#9!%\*\*2)%\*7!%, -!&8%'!?'!\*/O+%)\$-!./)/O/-4\$!-\$6\$4/+-\$-!2'8, 1!\$8(\$\$)! (#\$!%\*(2%4!P6\$)8.8\$-0!./)!(\$!8, \*/))\$\*(!P8, (\$, -\$-0!4/\*(8/, '!./)!(\$!\$!+4/('5!''#\$!\*##, 1\$!(/!(#\$!H8T; S!\*%, /+7!O\$(08\*!%.\$)!(\$!+4/(!\*/M)\$18'()%(8/, !\$))/'!?'!%4'/\$'(%&48'#\$-5!!

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**Re I** ''#\$!+4/(!\*/M)\$18'()%(8/, !\$))!8, !(\$!%'O+4\$!)%, 1\$-!./)/O!d5^!O!(/^d5]!O9!?'8(#!%, !%6\$)%1\$! 48, \$%)!' +%(8%4!\$)))/!./! [d5`!O5!''#\$!+4/(!\*/M)\$18'()%(8/, !\$))/'!' 2&'(% , (8%47!)\$-2\*\$-\$!(\$!')\$ , 1(#!./! )\$1)\$' 8/, !&\$(\$?\$\$, !H8T; S!\*%, /+7!O\$(08\*!%, -!"3V9!%'!(\$!O/-4\$!-\$6\$4/+-\$-!)/O!(\$!%\*(2%4!+4/(! 4/\*(8/, '!#%-!%, !Q!./!CC\_9!?'#4\$!(\$!O/-4\$!-\$6\$4/+-\$-!)/O!(\$!8, \*/))\$\*(!+4/(!4/\*(8/, '!#%-!Q!./! [a\_5!''#\$!1)\$(\$!'!)\$-2\*(8/, '!8, !O/-4\$!)\$ , 1(#!/\*\*2))\$-!?'#\$, !(\$!\$!?'!4\$'!'!(\$, !%!'d\_!/6\$)4%+! &\$(\$?\$\$, !(\$!+4/('!-\$8, \$-!&7!\* /))\$\*(!%, -!8, \*/))\$\*(!4/\*(8/, '5!@81#\$)!+4/(!\*/M)\$18'()%(8/, !\$))/'!'!4' /! \*%2' \$-! 81, 8.8\*%, (!\*##, 1\$'!(/!(#\$!#81#(!%, -!-\$, '8(7!H8T; S!\*%, /+7!O\$(08\*!(\$!(?'\$)\$12' \$-!8, !(\$! )\$1)\$' 8/, !O/-4\$!5!''#\$!4/?\$)!+\$)\*\$, (84\$!4\$6\$(8/, !H8T; S!O\$(08\*!?'\$)!O/)!\$ , '8(86\$!(/!+4/(!\*/M )\$18'()%(8/, !\$))/'!'!\*/O+%)\$-!(/!#81#\$)!+\$)\*\$, (84\$!O\$(08\*!5!

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**C ncl i n** !Z4/(!\*/M)\$18'()%(8/, !\$))/'!#%6\$!%'! 81, 8.8\*%, (!\$..\*(!/, !(\$!')\$ , 1(#!./!)\$1)\$' 8/, '!./)O\$-! &\$(\$?\$\$, !"3V!%, -!H8T; S!\*%, /+7!O\$(08\*!5!''#8!8, -8\*%(\$!(\$!%1%\*\*2)%(\$!O\$%'2)O\$, ('!./!+4/(!4/\*(8/, '! )%)\$!, \$\*\$%'7!(/!.2447!2(848' \$!H8T; S!./)!8, 6\$, (/)7!+2)/+'\$!8, !./)\$' ('!./!&. \$)(, 'O&' 1' 5!!

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\$?2\*#,!&- '\$. !.)\*\*D0!!  
4' (/2\*\*2. O!''-. \$B+!''\$@('!2. !'' (3!#(-%-. /!O' \$3. !(\$10%-)8&2' !

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''#8'!(2-7!8, 6\$'(81%(\$!(\$!)\$4%(8/, '#8+'!&\$(\$?\$\$, !O\$%'2)\$-!'(% , -!6%)8%&4\$'!%, -!4\$%.!%)\$!8, -\$B!PH; AQ! ?8(#!(\$!/&E\$\*(86\$!./!-\$6\$4/+8, 1!%'\*%, /+7!4/'2)\$!O/-4\$!./)!+\$)-8\*(8, 1!H; A!/.!W\$?!X\$%4%, -!1)/? , ! T/214% M.8)5!

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''#\$!H8>RS!H; A!eddd!?'%!'2' \$-!(/!O\$%'2)\$!H; A!8, ![\[!+\$)O%, \$, (!%'O+4\$!+4/('!PZ3Z'Q!(#)/21#/2(!(\$! 3/2(#!'A' 4%, -!/.!W\$?!X\$%4%, -!-2)8, 1!(\$!' 2OO\$)!/.!edd^Ked\5!T(%!%, %47'8'!'?'!&)/G\$, !8, (/!(#)\$\$\$ '(\$+'J!8, 8(8%4!&%'8\*!%, %47'8'!/4/?\$-!&7!O24(86%)8%(\$!%, %47'8'!%, -!O24(8+4\$!)\$1)\$' 8/, 5!

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A, 8(8%4!%, %47'8'!/2, -!(\$!O/'(!48G\$47!'(% , -!6%)8%&4\$'!(/!#%6\$!%'! 81, 8.8\*%, (!)\$4%(8/, '#8+'!?'8(#!H; A!%)\$J! U; 9!O''@9!V/49!3(/\*G8, 19!g)\$\$, !\*)/? , !4\$, 1(#!Pg>09!#81#(!%)(8/!P@(S%(Q!%, -!>)/? , !#81#(P>)(05!TU@! +\$)./O\$-!+//)47!8, !(#8'!8, 8(8%4!%, %47'8'!'?'! , /(!\*/ , '8-\$)\$-!8, !.2)(#\$)!%, %47'8'5!O24(86%)8%(\$!%, %47'8' ! 8, !3; 3!./2, -!%'! 81, 8.8\*%, (!8, (\$)%\*(8/, !&\$(\$?\$\$, !U; !%, -!O''@5!''#\$!48, \$%)!./)O/!(!#8'!8, (\$)%\*(8/, !?'!J! 3: 2%)\$!)/!(P3: )(Q! U; !y! O''@5! O24(8+4\$!)\$1)\$' 8/, !%, %47'8'!/2, -!\*)/? , !O\$%'2)O\$, ('!(/!&\$! 8, '81, 8.8\*%, (!8, !

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\$\$1\*-' ,!G\$#. !.) \*\*+0!!

9#(!(&&"\*)!\$&! , 2\$)\$%2/)!\$. !P !



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"#\$!48(\$)(2)\$!)\$68\$?!4\$-!(/!(# \$!#7+/(# \$'8'!(#%(!%!+%)(8%!+ )2, \$-!)\$18O\$! ?/24-!&\$!(# \$!O/' (!+ )/.8(%&4\$!  
)\$18O\$!/, !4/?!-\$, '8(7!8(\$'! ?#\$)\$!+ )/-2\*(8/, !/.' )2\*(2)%!(8O&\$)!O%7!&\$!8O+\$-\$-5!

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9-. ,!5\$\$ . !! #2-. O!.) \*\*B0!

&!)\*1/+!\$. !\*#(11)-O(!\$&!3\$\$\$(. !B\$%)!-. /!" \$))-' ?)l. !\*#(!" (3!#(-%- . /!(("\*\*2"2\*+!. (\*3\$' A!2. /1)\*' +

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Y4\$\*(08\*8(7! , \$(?/)G! \*/O+% , 8\$'! 2(848' \$! +/4\$'! % , -! \*)/' '%)O'! (/! '2++/)(! \$4\$\*(08\*8(7! 48 , \$'! 8 , ! (#\$8)!  
-8' ()8&2(8/ , ! , \$(?/)G' 5!V%)8/2'!O%(\$8%4' !%)\$!2' \$-!./)!+/4\$'!%, -!\*)/' '%)O'9!%, -!(#8'!' (2-7!' +\$\*8.8\*%447!  
4//G'!%!(#\$(/(%4!\*2))\$, (!%, -!+/( \$ , (8%4! .2(2)\$!-\$O% , -!./)!?//-\$ , !+/4\$'!%, -!\*)/' '%)O'!8 , !(#\$!W\$?!  
X\$%4% , -! \$4\$\*(08\*8(7! , \$(?/)G! 8 , -2' ()75!A , !(/(%49! (#\$)\$!%)\$!e^! \$4\$\*(08\*8(7! , \$(?/)G! \*/O+% , 8\$'! 8 , ! (#\$!  
\*/2 , ()75!!

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b!\*/O+% , 8\$'! ?\$)\$!8 , 8(8%447!68' 8(\$-!(/!1%(\$)\$! (#\$! , \$\*\$' '%)7!-%(%!% , -!1%8 , !8 , -2' ()7!G , /?4\$-1\$9!% , -!  
(#\$ , !(#\$!)\$O%8 , 8 , 1!ee!\*/O+% , 8\$'! ?\$)\$! '2)6\$7\$-!&7!+##/ , \$5!''#\$!'2)6\$7!?'!-\$'81 , \$-!(/!1%(\$)\$!&/(#!  
: 2%48(%86\$! % , -! : 2% , (8(%86\$! -%(%5! ''#\$! : 2%48(%86\$! '2)6\$7! ?%'! \*%))8\$-!/2(!8 , !%! ]d! O8 , 2(\$! +##/ , \$!  
8 , (\$)68\$?! (/! 1%(\$)\$! 8 , ./)O%(8/ , ! / , ! ()\$, -'! 8 , ! +/4\$'! % , -! \*)/' '%)O! 2(848' %8/ , 9! % , -! %! (/(%4! /! e]!  
\*/O+% , 8\$'! +)/68-\$-! 8 , ./)O%(8/ , 5! [a! \*/O+% , 8\$'! )\$' +/ , -\$-! (/! (#\$! : 2% , (8(%86\$! '2)6\$79! ?#8\*#!  
+)/68-\$-!-%(%! / , !\*2))\$, (!' (/ \*G!% , -!% , , 2%4!\*/ , '2O+(8/ , ! / .! +/4\$'! % , -! \*)/' '%)O'9!%, -!+)/-2\*(!+)8\*\$'!  
% , -!' +\$\*8.8\*%(8/ , '5!Y' (8O%(8/ , ! / .! \*2))\$, (!' (/ \*G!% , -!\*/ , '2O+(8/ , ! / .! +/4\$'! % , -! \*)/' '%)O'!?'! \*%))8\$-!  
/2(!./)!(#\$!\$, (8)\$!8 , -2' ()7!2'8 , 1!(#\$' \$!-%(%9!% , -!/(#\$)!-%(%!./)O!+2&48' #-\$-! /2)\*\$' 5!''#\$!%, , 2%4!+/4\$!  
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HA3!6/42O\$!'(8O%('\$!?'\$)!, /(!+)\$\*8'\$9!?'8(#!(#!)%, 1\$!/.!\$(8O%('\$!)%, 18, 1!.) /O!d!O#K#%!( /!- /2&4\$!  
(#\$!)()2\$!6/42O\$5!; , !8, \*)\$%' \$!8, !%'O+48, 1!4\$, 1(#!&7!%!(#8)-!?'%!. /2, -!(/!8, \*)\$%' \$!+) \$\*8' 8/, !&7!/, 47!%!  
' O%4!%O/2, (5!''#\$)\$\$. /) \$9!8(!?'%!'-\$(\$)O8, \$-!(#%(18, \*)\$%' \$-!%'O+48, 1!8'!, /(!?/)(#?#84\$!%!(# \$!\*/('!  
%' ' / \*8%(\$-!?'8(#18!-!/, /(!E2' (8.7!(# \$!' O%4!8, \*)\$%' \$!8, !+) \$\*8' 8/, 5!!

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92. . (%%+,!5%-2' !.) \* //0!  
E(\$O' 2/!2. !&\$' ) \*! ' \$- /)!

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g\$/1)8-!8'!% ! ?\$4! G, /?, !+ ) /-2\*(9! 8'!) \$%-847! %6%84%&4\$! %, -! 2' \$-! \$B(\$, '86\$47! 8, ! \*8684! \$, 18, \$\$)8, 1!  
%+48\*(8/, ' !8, \*42-8, 1!' (%&848L8, 1!' 4/+ \$' !%, -! /84!\$) /' 8/, 5!A, !. /) \$' ()79!8(!\*%, !&\$!8, ' (%44\$-! /6\$) !%!. /) \$' (!  
) /% -! ' 2&1)% - \$! (/!+) /68- \$!% -8(8/, %4! ' () \$, 1(#!%, -! (%&848(7! . /) ! (# \$! /6\$) 478, 1!%11) \$1%(\$5! ! #84\$!8(!#%'!  
&\$ \$, !2' \$-!8, !. /) \$' (!) /% -8, 1!%+48\*(8/, ' !8, !6%)8/2' ! \* /2, ()8\$' !%, -!2, -\$) !-8. . \$) \$, (!\* /, -8(8/, '9!48((4\$!  
48(\$)% (2) \$!8' !%6%84%&4\$! (/!# \$4+!(# \$! . /) \$' (!8, -2' ()7!2, -\$) ' (% , -!(# \$! \$B+ \$\* (\$-!+ \$) . /) O%, \*\$!%, -!+ /(\$, (8%4!  
&\$, \$.8('! / .!1\$ /1)8-5! " \$, ! ()8%4' ! ?\$) \$! \$' (!2+!8, !. /2) !-8. . \$) \$, (!) \$!8/, ' ! (#) /21# /2 (!W\$?! X\$%4%, -! (/!  
\* /O+%) \$!, \$?!) /% -! &284(!?8(#!%, -! ?8(# /2 (!1\$ /1)8-! (/!2, -\$) ' (% , -!+ /(\$, (8%4!8O+) /6\$O\$, (9! \* /O+%) \$!  
-8. . \$) \$, (!%11) \$1% (\$! (#8\*G, \$' !4%7\$) ' !%, -!+ ) /68- \$!% ! \* /' (!&\$, \$.8(!%, %47' 8' ! / .!8, ' (%448, 1!1\$ /1)8-5!

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"# \$! ()8%4' ! ?\$) \$! ()% . .8\*G\$ -! -2)8, 1! (# \$! ?8, (\$) !+ \$)8/ -!%, -! ?\$) \$! O\$% '2) \$-! . /) ' () \$, 1(#9!)/% -! ' #%+ \$!  
-\$ . /) O%(8/, !%, -! \* /OO/, !) /% -! - \$ . \$ \* ('5! S\$ ' 24('! ' # / ?! (# \$) \$! ?% ' !, /! ' 81, 8.8\*%, (!-8. . \$) \$, \*\$! ?# \$, !%!  
) /% -! ?% ' !) \$8, . /) \* \$ -! ?8(#! 1\$ /1)8-! P+M6%42\$9! d5Ceb\05! " # \$! \* /' (! &\$, \$.8(!%, %47' 8' ! /2, -! 1\$ /1)8-! ?% ' !  
\$ \* /, /O8\*%447!68%&4\$! ?# \$, !%11) \$1% (\$! \* /' (!?% ' ! #81# ! PobjdMo` dKO#Q!%, -!% !4%) 1\$!%11) \$1% (\$! - \$+ (#! ?% ' !  
): 28) \$-! P/6\$) !] ddOO05! " # \$!4%\*G! / .! ()% . .8\* /6\$) !%44! ()8%4' ! ?% ' !%48O8(8, 1!.%\*( /)9!% ! ?% ' ! (# \$! O%8, (\$, %, \*\$!  
?#8\*#! /O\$!) \$' 24('!) \$\* \$86\$ -! -2)8, 1! (# \$! ?8, (\$) 5! > /, ' ()2\*(8/, ! / .! (# \$! ()8%4' !48O8(\$-! (# \$! \* /, .8-\$, \*\$! / .!  
(# \$! () \$% (O\$, (!?8(#!%) \$-2\* \$-! - \$+ (#! / .!%11) \$1% (\$5!

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9' \$\*\* (' ,!\$2? \$ . !.) \* /)0!

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""#\$!O/-4!\*, !&\$!O/-8.8\$-!(/!)\$+\$', (!'O%44M' \*%4\$!./)' (!1)/?\$)'!#/?\$6\$!)!+).8(%&848(7!8!O/) \$!  
8, .42\$, \*\$-!&7!-8..\$)\$, \*\$!8, !\*/' (!(#%, !O/-4!')2\*(2)\$5!<2)(#\$)!2, -\$)'(%,-8, 1!/.!(#\$!)\$4%(8/, '#8+!  
&\$(\$?\$\$, !' \*%4\$!%, -!\*/' (18, \*)\$%' '\$!8!)\$: 28)\$-!./!)%\*\*2)(\$!O/, 8(/)8, 1!/.!' O%44M' \*%4\$!)!+)\$%(8/, '5!

U7!/, 47!' 2)6\$78, 1!(#\$!G\$7!8, +2('!8-\$, (8.8\$-9!(#\$!\*/' (!'!.!O/, 8(/)8, 1!+).8(%&848(7!%)\$!O8, 8O8' \$-5!''#\$!  
O/-4!8' !%&4\$!(/!+) '\$', (!+).8(%&848(7!'/!(#%!(8!1\*%, !&\$!\$%' 847!\*/O+%)\$-! ?8(#!(#\$!+)/.8(%&848(7!/.!/(#\$!)  
4%, -!2' \$'!/, !%)\$18/, %4!4\$6\$45!

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1-. 15' 1"#(? ,15\$' 2!)\*) \*0!  
&. -%+2)!\$&!#(!\*' (-\*(/!3\$\$!/?- 'A(\*!&\$' !-O' 2''1%\*1' -%!. /!#\$' \*2''1%\*1' -%!1)()!2. !" (3!#(-%- /!

""#8'!(2-7!%, %47' \$-!(#\$!)%(\$-\$!/?//-!O%)G\$(!./!)%1)8\*24(2)%4!%, -!#/(8\*24(2)%4!2' \$'!8, !W\$?!X\$%4%, -5!  
")\$%(\$-!/?//-!)\$.\$)'!(/!. \$, \*\$!+/' (!'./)!' (/ \*G!%, -!\*)/+'9!G8?8.)28(!+\$)1/4%'9!68, \$7%) -!+/' ('!%, -!/(#\$!)  
#/(8\*24(2)%4! 2+++/)(8, 1!' )2\*(2)\$'5!S%-8%(!+8, \$!P/&. \$)(, 'O&' 1' Q!8'!(#\$!+) \$- /O8, %, (!' +\*\$8\$'!2' \$-!8, !  
(\$'\$!8, -2')8\$'!%, -!)\$: 28)\$'!#)/O%(\$-!\*/++\$!)%' \$, %(\$!P>>; Q!+) '\$')6%(86\$!)O%(\$, (!./)!/2(-//)!  
%++48\*(8/, 5!''#8'!)\$' \$%) \*#18'!+\$)(8, \$, (1%'!(\$)\$!%)\$!\*/ , \*\$), '!%&/2(!>>; !)\$%(\$-!/?//-!-8' +/'%49! ?#84\$!  
(\$)\$!#%' !&\$\$, !, /!+2&48\*47!%6%84%&4\$!%, %47' 8'!/.!(#\$!O%)G\$(5!''#\$!8, ./)O%(8/, !+)\$' \$, (\$-!#\$)\$! ?84!%8-!  
(\$! W\$?! X\$%4%, -! T)74%, -! </)' ('! A, 8(8%(86\$! PWT<A!%, -! \$42\*8-%(\$! (#\$! 8O+ /)(%, \*\$! /! (#\$! 'O%44!  
-8O\$, '8/, !4/1!)\$' /2)\*\$5!!

""#)\$!\$' /2)\*\$'! /!-%(!?%)\$!2' \$-!(/!+)/-2\*\$!8, -\$+\$, -\$ , (!\$' (8O%(\$'! /! (#\$!O%)G\$(J!!

- [5 %!2' \$!+\$)!# \$\*(%)\$!\$' (8O%(\$!!
- e5 %!O%, 2.\*(2)\$)'F!\$' (8O%(\$!!
- ]5 %!)\$' /2)\*\$!2' \$!\$' (8O%(\$!!

A(!?'!\$' (8O%(\$-!(#%(!%++)/B8O%(\$47!`5a!O848/, !O#! /!>>; !)\$%(\$-!/?//-!8'!\*2))\$, (47!+)\$' \$, (18, !(\$#!  
%1)8\*24(2)%4!%, -!#/(8\*24(2)%4!8, -2')8\$'!2' 8, 1!(#\$!2' \$!+\$)!# \$\*(%)\$!O\$(#/-5!''#8'!+)\$' \$, ('!%!'81, 8.8\*%, (!  
-8' +/'%4! 48%&848(79! ?8(#!+ /48\*7!%, -!%!\* /2, ()7M?8-\$! -8' +/'%4! 'O%(\$17! +/(\$, (8%447!)\$: 28)\$-5!; , , 2%4479!  
&%' \$-!/, !' \$\*(/)!\$B+%, '8/, '!, -!)\$+4\*\$O\$, (!)\$(\$'9! ead9ddd!O#!+\$)!7%)!8'!2' \$-5!''#\$!O%, 2.\*(2)\$)'F!  
O\$(#/-!\$' (8O%(\$-!%)%, 1\$! /! | e^d9ddd!O#!(/! | ] [d9ddd!O#!+\$)!7%)!&%' \$-!/, !8, ./)O%(8/, !, !)/O!(? /!  
8, -\$+\$, -\$ , (!>>; !/)1%, 8' % (8/, '5!H%' (479!(\$!)\$' /2)\*\$!2' \$!O\$(#/-!\$' (8O%(\$-! | ] ad9ddd!O#!+\$)!7%)!  
&%' \$-!/, !./)\$' (!1)/?)\$! 2)6\$7'5!!

""#\$!O%)G\$(!8'!O/' (!48G\$47! &\$(\$?\$\$, !%++)/B8O%(\$47! | e^d9ddd! O#! (/! | ] [d9ddd! O#!+\$)!7%)9!' !(\$#!  
)\$' /2)\*\$!2' \$!\$' (8O%(\$!+)\$' 2O%&47!/6\$)\$' (8O%(\$'!'!' 2)6\$7!)\$' +/, -\$)'!8, -8\*%(\$-!(#%(!# /2' \$!+84\$9!  
+24+!4/19! %?4/1!%, -!8)\$?// -16/42O\$'!?)\$!8, \*42-\$-5!''#\$!2' \$!+\$)!# \$\*(%)\$!\$' (8O%(\$!O%7!%4' /!&\$!%, !  
/6\$)\$' (8O%(8/, !%'! , /, M?// -!+ )/-2\*( '!' 2\*#!'!' +4%' (8\*!%, -! O%(\$4! +/' ('! ?\$)\$! , /(!%\*\* /2, (\$-! ./)!  
%A(#/21#!\$B+\$)'!8, -8\*%(\$-!(#%(!(\$' \$!+)/-2\*( '!' /, 47!)\$+)\$' \$, (!%' O%44!+)/+)(8/, !./!(\$!O%)G\$(5!)

</O!(#\$!WXT<A!+\$)' +\$(86\$9!(#\$! /)1%, 8\*' \$\*(/)!\$' (8O%(\$'! /! | `9ddd! O#!+\$)!7%)!(/! | [C9ddd! O#!+\$)!\$)

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1\$, \$)%447!-!/ / (IE2' (8.7!(#\$8)!+)-2\*(8/ , 18, !\*/O+%)8' / , !?8(#!(#\$!O%8, !\*/O+\$ (8(8/ , !/ .!\$B+ /)(!+24+!%, -!  
j !1)%-\$'5!"#8'!?'%!'\$'+\$\*8%447!()2\$!./)!./)\$'('!4/\*%(\$-!, \$%)!+ /)( '5!!

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1-. !: --. /(%,!&. /' (!.)\*/L0!

-' '-/2-\*2\$. !-)!- !-%\*( ' . -\*2@(!B#+\*\$)-. 2\*- ' +!\*' (-\*? ( . \*!&\$' !A !- . /!H !!

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! // -!+)-2\*( '!%44!)\$: 28)\$!()\$(O\$, (!(!O8(81%(\$!+#7(/'%, 8(%7!)8'G!+)8/)!(/!\$B+ /)(%8/ , 5!"#\$!O/' (!  
\*/OO/ , !+#7(/'%, 8(%7!)()\$(O\$, (!%++48\$-! (/! /&. \$)(, ' 0&' 1' !4/1' !8' !O\$(#74! U)/O8-\$!PO\$U)Q5! "#\$!  
Y, 68)/, O\$, (%4! Z)/(\$\*(8/ , !; 1\$, \*7!PYZ; 0!8, !ed[d!' (%(\$-! (#%(!O\$U)!O2' (!, /(!&\$!)\$4\$%' \$-!8, (/! (#\$!  
%(O/'+#\$)\$! +% '(! eded5! "#8' ! +/' \$' !% ! +)/&4\$O! ./)!W\$? !X\$%4%, -!4/1! \$B+ /)( '5! S%-8%(8/ , !#%' !&\$\$, !  
8-\$, (8.8\$-!%' !% !+/' ' 8&4\$!%4(\$), %(86\$!+#7(/'%, 8(%7!)()\$(O\$, (!./)!\$B+ /)(!/?// -!+)-2\*( '5!!

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"#8' !' (2-7!%8O\$-!(/! : 2%, (8.7!(#\$!\$. \$\*(86\$! -/' \$! /.!)%-8%(8/ , !, \$\*\$' '%)7!(/!' (\$)848' \$!(?/!./)\$' (!+\$' (!  
' +\$\*8\$' !R, @%+ ' 8\$)(?' , \$)!%, -!E98\$, : \$(8&: . &+ " , O' 5! "#\$' \$!' +\$\*8\$' !%)\$!)\$+)\$' \$, (%(86\$! /! (?/! -8. \$)\$, (!  
(7+\$' ! /! ./)\$' ()7!+\$' (' !&%&)G!&\$\$(4\$!PE3(8&: . &+ " , O' Q!%, -! ?// -!&/)\$' !PR3(?' , \$)Q5! ; 4!%++48\*%&4\$!48. \$!  
' (%1\$' !./)!&/ (#! ' +\$\*8\$' !? \$)\$' (\$' (\$-5!

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R, @%+ ' 8\$)(?' , \$)!

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; ! ()\$, -! ?%'! 8-\$, (8.8\$-! &\$(?\$\$, ! (#\$! 4\$6\$4! /.! \*/))\$4%(8/, ! %, -! (#\$! '+%(8%4! )\$4%(\$-, \$'!' /.! (#\$!  
O\$%'2)\$O\$, ('!?'8(#8, !#\$81#('5!'#\$!O\$%'2)\$O\$, ('!(#%(!?)\$!&\$'8-\$!\$%\*#!/(#\$!)!?)\$!O/)!)\$!\*/))\$4%(\$-!  
(#%, !O\$%'2)\$O\$, ('!%!(#\$!/++'8(\$!+'8(8/, '! /, !(\$#!'(\$O5!'#\$!+%((\$, !8'!#81#481#(\$-!8, !<812)\$!`5!  
@81#\$)!\*/))\$4%(8/, '!&\$(?\$\$, !O\$%'2)\$O\$, ('!8, -8\*%(\$!(#%(!'+8)%4!1)%8, !8'!6\$)7!48G\$47!&\$8, 1!O\$%'2)\$-9!  
&2(!8(!-\$/'! /(!\$, (8)\$47!)24\$! /2(!O\$%'2)\$O\$, (!\$))!/)!)!&8%'5!!

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"#\$! 8O+48\*(8/, ! ?%'! (#%!(#\$! &\$'(! ?%7! (/!)\$-2\*\$! (#\$! \$..\$\*('! /.' '+8)%4! 1)%8, ! 186\$, ! /2)! \*2))\$, (!  
G, /?4\$-1\$!8'!(#)/21#!&)\$-8, 19!%A(#/21#!(#\$!/6\$)%4!18, .42\$, \*\$!/.!\*4/, \$!?'%!)\$4%(86\$47!' O%4!\*/O+%)\$-!  
(/!(/%4!6%)8%(8/, !8, !'+8)%4!1)%8, 5!!!

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(#\$!T/214%!8)!W%(8/, %4!O/- \$4!PT<W; "05!; 4(#/21#!.)\$: 2\$, (47!2' \$-9!8(!8'!2, G, /?, !#/?!(\$!O/- \$4' +\$).)/O!/, !-%(' \$( '!/2('8-\$!(#/' \$!2' \$-!./)!8, 8(8%4!6%48-%(8/, 5!!

Z)\$-8\*(8/, '! /! O\$, ! (/+! #81#(!PO"@09! &% %4! %)\$%K#%!, -! '(/\*G8, 1! &7! (#\$! (#)\$ \$! O/- \$4'! ?\$)\$! \*/O+%)\$-! (/] [b! 1)/?(\$! O\$%' 2)\$O\$, ('! %\*)/'!'! \9]^! #%! /! T/214%! 8)! ./)\$' ('! (#)/21#/2(! >%, (\$)&2)79! R(%1/9! %, -! 3/2(#4%, -5! "#\$! %&848(7! /! ! \$%\*#! O/- \$4! (/! O%(\*#! %\*(2%4! #8' (/)8\*%4! 1)/?(\$! O\$%' 2)\$O\$, ('!8, !%, !8, -\$+\$, -\$ , (!-%(' \$(!./)O\$-!(#&!&% '8'!./)!\*/O+%)8' / , 5!"#\$%&'()\*+,-./:;<=>?@AB CDEFGHIJKLMNOPQRSTUVWXYZ[\]^\_`a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~ ¡ ¢ £ ¤ ¥ ¦ § ¨ © ª « ¬ ® ¯ ° ± ² ³ ´ µ ¶ · ¸ ¹ º » ¼ ½ ¾ ¿ À Á Â Ã Ä Å Æ Ç È É Ê Ë Ì Í Î Ï Ñ Ò Ó Ô Õ Ö × Ø Ù Ú Û Ü Ý Þ ß à á â ã ä å æ ç è é ê ë ì í î ï ð ñ ò ó ô õ ö ÷ ø ù ú û ü ý þ ÿ

32&' (% , (8%4!8O+)\$\*8' 8/, 9!' 7' (\$O%(8\*!&8%' 9!%, -!)\$18/, %4!6%)8%(8/, '!?'\$)\$!./2, -!8, !+)\$-8\*(8/, '! /!O"@9! &% %4! %)\$%K#%!, -! '(/\*G8, 1! &7! (#\$!bdd!A, -\$B9!3AT<AS!%, -!T<W; "1!)/?(\$!%, -!78\$4-!O/- \$4'5!S\$18/, %4! 6%)8%(8/, '!%, -! '81, 8.8\*%, (!\$. \$\* ('! /! '8(\$! \*#%)%\*( \$)8' (8\* '!?'\$)\$!%4' /!' #/? , !(/!\$B8' (5! "#\$!3AT<AS!O/- \$4! +\$).)/O\$-!(#&!&\$' (!?'8(#!(\$!O/' (!+)\$\*8' 8/, !%, -!4\$%' (!&8%' /! !(\$!(\$)\$ \$!O/- \$4' N!#/?\$6\$)9!+)\$-8\*(8/, '! ' (844!-8' +4%7\$-!\*/ , '8-\$)%&4\$!8O+)\$\*8' 8/, !%, -!&8%' 5!!

"#2' 9!-\$6\$4/+8, 1!%, \$?1!)/?(\$!%, -!78\$4-!O/- \$4!./)!T/214%!8)!8, !(\$!3/2(#!A' 4%, -!8'!)\$\*/OO\$, -\$-5! "#8'!O/- \$4! #/24-!2(848' \$!%#7&)8-!O/- \$448, 1!%+ +)/%\*#! (/!%\*\*/2, (!./)!\*48O%(8\*!6%)8%(8/, '!&\$(\$?\$\$, ! '8(\$' !%, -!+)/68-\$18, \*)\$%' \$-!+)\$\*8' 8/, !%, -!)\$-2\*\$-!)\$18/, %4!6%)8%(8/, 5!; !, \$?IO/- \$4! ?/24-!%44/?!./)\$' (!







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e9bdb!)%(\$!)!(#%, !\e]!('\$O'+\$)!#\$(%)\$9! (8., '\$'!\*%, !8, \*)\$%'\$!&7![C\_5!3(8., '\$'!'?%'!C[\_!1)\$%(\$)!./)!  
 23(. &1''. )(#/?\$6\$)9!/3(' O&' 1' (' (8., '\$'!'\*%, !&\$!'81, 8.8\*%, (47!P/(k!d5dd[Q!8, \*)\$%'\$-!&7!2+!(/[5e!gZ%!&7!  
 +4%, (8, 1!+#7'8/4/18\*%47!%1\$-!4/, '\$'5!3(/\*G8, 1!#%-!'81, 8.8\*%, (!\$..\$\*(!/, !)\$\$\$-8O\$, '8/, 'P/(k!d5dd[Q!  
 ./)!&/(!'+\$\*8\$'J! TU@! -\$\*)\$%'\$-!8, !%, !B+/, \$, (8%4! )\$, -9! ?#\$)\$%'! )\$\$\$!#\$81#(!-\$\*)\$%'\$-!O/)\$!  
 48, \$%)475!Z#7'8/4/18\*%4!%18, 1!'81, 8.8\*%, (47!%..\$\*(\$-!TU@!P/(k!d5dd`^Q!&2(!, /( ! )\$\$\$!#\$81#(!P/(c!d5] [Q5!  
 ! 8, -!-8)\$\*(8/, !?%'!%! '81, 8.8\*%, (!+)\$-8\*(/)!/!.!ORY!%, -!%'!' 2\*#!' (% , -8, 1! )\$\$\$!' (8., '\$'!' #/24-!&\$!  
 O\$%'2)\$-!/, !(\$\$! ?8, -?%) -!%, -!4\$\$(?) -!'8-\$'!/!.!(\$\$! )\$\$(/!%\*/2, (!../)!\*/O+)\$'8/, !?// -5! ; (!  
 +)\$' \$, (9!(\$\$!+/( \$, (8%4!/.!23(. &1''. )

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\*)&/, !' \$: 2\$' ()%(8/, !8'!8O+/(% , (!186\$, !(#\$!(#)868, 1!\*%)&/, !O%)G\$(!%, -!(#\$!\*2))\$, (!\*48O%(\$!\*')8'8'!  
)\$: 28)8, 1!2'!(/!)\$-2\*\$!, \$(!g@g!\$O8' '8/, '5!!

S\$4\$6%, (!48(\$)(2)\$!, /(\$-!(#%(!&8/O%'!1)/?(!#18'!#81#47!8, .42\$, \*\$-!&7!4/\*%4!\$, 68)/, O\$, ('!%, -!'8(\$!  
.%(/'5!; , %47'8, 1!&8/O%'!'%'%7'!?'8(#!%)\$M\$6\$4!O8B\$-M\$..\$\*(!O/- \$4!(/!+)\$-8\*(!&8/O%'!'!#)/21#!  
(8O\$!(%G\$'!8, (/!%\*\*/2, (!6%)8%, \*\$!\*%2'\$-!&7!4/\*%4!..%(/'!%, -!?'%!./2, -!(/!&\$!%, !\$.\$.\*(86\$!?'%7!(/!