! #5!6789:!;<!:9,!=>..,5:!? 0 @#) ABC!D-5E, F7=4!:9,!G \$!HIH:, F !9-H!, H:-J67H9, E!-!? 0 @#) ABC! /,E7=-6!&K-=>-:7;5!LM / &) &@ * ?N0!% IH:, F !:;!D.;K7E,! / &) &@ * ?!-5E!.,6-:,E!F,E7=-6! H,.K7=,H!:;!:.,-:!H,K,.,!=-H,H!;<!? 0 @#) ABC4!H>JP,=:!:;!-K-76-J767:I4!=-D-=7:I4!,6787J767:I4!-5E!-! E,:,.F75-:7;5!;<!=6757=-6!5,,E0!!

*H! ', H7E, 5:!?; ; .E75-:; .!75!"#\$%& ' (!?OG\$ ('R+4!#!9-K, !E, H785-:, E!, HD; 5H7J767: I!<; .! :9,!=; ; .E75-:7; 5!; <!:9,!?O@#) ABC! / &) &@ * ?!%IH:, F!75!"#\$%& ' (!?OG\$ ('R+!:; !"#\$%& ' (! \$* / &+!75!:9,!.;6,!; <!?O@#) ABC! ?; ; .E75-:; .4!S9; !S766!H, .K, !-H!-!<;=-6!D; 75:!<; .!:9,! =; ; .E75-:7; 5!; <!?O@#) ABC! / &) &@ * ?H4!75=6>E758!:9,!.,6-:, E!6; 87H:7=H4!:,=957=-6!-HD,=:H!-5E! -EF757H:.-:7K, !T>, H:7; 5H!; 5!-!UVWX!J-H7H0!

(9, !G\$!.,=;857Y, H!:9-:!7:H!D-.:5, .H!<.;F!#5:,.5-:7;5-6!\$;5A2;K,.5F,5:-6!0.8-57Y-:7;5H! LM#\$ 2 OHN04!D-.:7=>6-.6I!:9;H,!-:!:9,!<.;5:675,!;<!:9,!.,HD;5H,!:;!?0@#) ABC!D-5E, F7=4!;<:,5! S;.Z!75!=9-66,58758!,5K7.;5F,5:H!-5E!F-I!<-=,!.7HZH!-HH;=7-:,E!S7:9!:9,!HD.,-E!;<!?0@#) ABC!!!

*==;.E7586I4!:9,!G\$!HIH:,F!;.8-57Y-:7;5H!9-K,!

*H!-5!#\$ 2 0!,58-8,E!JI!-!G\$!HIH:, F!;.8-57Y-:7;5!75!:9,!7FD6, F,5:-:7;5!;<!:9-:! ;.8-57Y-:7;5^H!F-5E-:,4!I;>.!;.8-57Y-:7;5!7H!75=6>E,E!75!:9,!H=;D,!;<!:9,!? 0 @#) ABC! / &) &@ * ?!%IH:,F4!H>JP,=:!:;!:9,!,6787J767:I!=.7:,.7-!L-0`L=0!-J;K,(!!1>.:9,.4!-==,HH!:;!:9,! ? 0 @#) ABC! / &) &@ * ?!%IH:,F!S766!J,!D.;K7E,E!H>JP,=:!:;!I;>.!;.8-57Y-:7;5^H!-8.,,F,5:!:;!:9,! <;66; S758!=;5E7:7;5H\!

- BQ (.,-:F,5:!;<!?O@#) ABC!D-:7,5:H!-:!:9,!=;>5:.I!6,K,6!.,F-75H!:9,!<7.H:!675,!;<! E,<,5H,Q!a;=-6!:.,-:F,5:!H9;>6E!J,!H>DD6,F,5:,E!JI!:9,!;D:7;5!;<!?O@#) ABC! / &) &@ * ?!;56I!S9,5!:9,!6-::,.!7H!E,,F,E!=6757=-66I!5,=,HH-.IQ!
- U((9,!? 0 @#) ABC! / &) &@ * ?!% IH:, F!E;, H!5;:!H>D, .H, E, !-5I!F, E7=-6!, K-=>-:7;5! -..-58, F, 5:H!;<!I;>.!;.8-57Y-:7;5!-5E!7H!5;:!75:, 5E, E!:;!., D6-=, !D.;:,=:7K,! F, -H>., H!:;!J, !:-Z, 5!JI!, -=9!#\$ 2 0!75!., 6-:7;5!:;!7:H!D, .H;55, 6!-5E!:9,7.! E, D, 5E, 5:H0!#5H:, -E4!:9, H, !-..-58, F, 5:H!H>DD6, F, 5:!-5E!=; FD6, F, 5:!:9,! F, -H>., H!-5E!-=:7;5H!;<!, -=9!#\$ 2 00!
- V(R;>.!;.8-57Y-:7;5!-HH>F,H!-66!.7HZH!-5E!67-J767:7,H!75!=;55,=:7;5!S7:9!:9,! D.;K7H7;5!;<! / &) &@ * ?!-5E!.,6-:,E!H,.K7=,H4!75=6>E758!F,E7=-6!H,.K7=,H0!#5!:97H! .,8-.E4!I;>.!;.8-57Y-:7;5!H9-66!J,!.,HD;5H7J6,!<;.!.,H;6K7584!-5E!H9-66!75E,F57<I4! 9;6E!-5E!H-K,!9-.F6,HH4!-5E!E,<,5E4!:9,!G57:,E!\$-:7;5H!-5E!G57:,E!\$-:7;5H! HIH:,F!;.8-57Y-:7;5H!<.;F!-5E!-8-75H:!-5I!=6-7FH!JI!D,.H;55,6!;<!I;>.! ;.8-57Y-:7;5!-5E!,6787J6,!E,D,5E,5:H4!75=6>E758!:9;H,!-.7H758!;>:!;<!-=:H!;.! ;F7HH7;5H!;<!I;>.!;.8-57Y-:7;54!;.!;<!I;>.!D,.H;55,6!;.!!9,7.!,6787J6,!E,D,5E,5:H! -.7H758!75!=;55,=:7;5!S7:9!:9,!D.;K7H7;5!;<! / &) &@ * ?!-5E!-5I!.,6-:,E!H,.K7=,H4! 75=6>E758!F,E7=-6!H,.K7=,H4!JI!:9,!G57:,E!\$-:7;5H!;.!G57:,E!\$-:7;5H!HIH:,F! ;.8-57Y-:7;5H0!
- d((9,!D.;K7H7;5!;<! / &) &@ * ?H!-5E!.,6-:,E!H,.K7=,H4!75=6>E758!F,E7=-6!H,.K7=,H4!7H! H,D-.-:,!<.;F!-5E!S7:9;>:!D.,P>E7=,!:;!-5I!,[7H:758!=;5:.-=:>-6!-..-58,F,5:H! J,:S,,5!I;>.!;.8-57Y-:7;5!-5E!:9,!G57:,E!\$-:7;5H!;.!G57:,E!\$-:7;5H!HIH:,F! ;.8-57Y-:7;5H!S7:9!.,8-.E!:;!:9,!7FD6,F,5:-:7;5!;<!-5I!D.;8.-FF-:7=!;.!;:9,.! -=:7K7:7,H0!
- eQ #5!-66!=-H,H4!-5E!.,8-.E6,HH!;<!:9,!:.,-:F,5:!6;=-:7;54!-7.!-FJ>6-5=,!:.-5HD;:.-:7;5! <.;F!:9,!75:,.5-:7;5-6!D;75:!;<!E,D-.:>.,!-5E!8.;>5E!-FJ>6-5=,!:.-5HD;:.-:7;5! <.;F!:9,!-..7K-6!-7.D;:!:;!:9,!:.,-:F,5:!<-=767:I!S766!J,!D-7E!<.;F!:9,!G\$!HIH:,F^H! =,5:.-6!<>5E!E,E7=-:,E!:;!:9,!?O@#)ABC! / &)&@*?!1.-F,S;.Z!LM=,5:.-6! <>5EN00!!

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- X0 f 9,.., !D-:7, 5:H!-., !:., -:, E!75! F, E7=-6!<-=767:7, H!S7:9!S97=9!:9, !G \$!HIH:, F !9-H!; .! S766!=; 5=6>E, !-!<; .F-6!-..-58, F, 5:!<; .!:9, !D.; K7H7; 5!; <! F, E7=-6!H, .K7=, H4!:9, ! =, 5:.-6!<>5E!S766!J, !>H, E!:; !D-I!<; .!! F, E7=-66I!5, =, HH-. I4!., -H; 5-J6, !-5E! =>H:; F-.I! F, E7=-6!=; H:H!-5E!, [D, 5H, H!<; .!H, .K7=, H!., 6-:, E!:; !75:, 5H7K, !-5E!9789! E, D, 5E, 5=I!:., -: F, 5:!; <! ? 0 @#) ABC]!-5E!., -H; 5-J6, !-EE7:7; 5-6!75=7E, 5:-6! , [D, 5H, H4!H>=9!-H!D, .H; 5-6!-5E!9I87, 5, !7:, FH!L:; ;:9J.>H94!H9; S, .!8, 60! :,6, D9; 5, \forall (@4!E.75ZH4!5, SHD-D, .H4!75=>.., E!E>.758!75:, 5H7K, !-5E!9789!E, D, 5E, 5=I! :., -: F, 5:!; <! ? 0 @#) ABCQ!! ?785-4!-H!:9, !? 0 @#) ABC! / &) &@ * ?!% IH:, F^H! E, H785-:, E!:97.EAD-.:I!-EF757H:.-:; .4!S766!D.; =, HH!-66!75K; 7=, H!<; .!:, -: F, 5:!75!:9, ! 757:7-6!., =, 7K758!<-=767:I4!-5E!D-I!:9, !9; HD7:-6!E7., =:6I!<; !!9, !, [D, 5H, H!; >:675, E! -J; K, Q! f 9, ., !:9, H, !D-IF, 5:H!75=6>E, !, 6, F, 5:H!., 6-:, E!:; !D; H:A75:, 5H7K, !-5E!9789! E, D, 5E, 5=I!=-., 4!I; >.!; .8-57Y-:7; 5!7H!., T>7., E!:; !., 7FJ>.H, !:9, !G \$!HIH:, F!<; .! :9, H, !=; H:H4!-H!H;; 5!-H!D; HH7J6, Q!!
- c() f 9,..,!D-:7,5:H!-.,!:.,-:,E!75!<-=767:7,H!S7:9!S97=9!:9,!G\$!HIH:,F!E;,H!5;:!9-K,! -5E!S766!5;:!=;5=6>E,!-!<;.F-6!-..-58,F,5:!<;.!:9,!

/ &) & @ * ?!% IH:, F4!:9, !G\$!HIH:, F!S766!-7F!:;!<-=767:-:,!:9,!.789:!;<!,5:.I!;<!:9,! D-:7,5:!-5E!-5I!5;5AF,E7=-6!,H=;.:!75:;!:9,!.,6,K-5:!=;>5:.I!;<!:.,-:F,5:0!!

- BU(R;>.!; .8-57Y-:7; 5!S766!J,!., HD; 5H7J6,!<; .!-66!-HD,=:H!L75=6>E758!=; H:H0!; <!-5I! .,D-:.7-:7; 5!D.;=, HH, H!L75=6>E758!.,D-:.7-:7; 5!; <!., F-75H04!<; .!:9,!-J;K,F,5:7; 5,E! .,6787J6,!D,.H; 5H4!-H!S,66!-H!<; .!-5I!5; 5AF,E7=-6!,H=; .:H0!
- Bb(R;>.!; .8-57Y-:7; 5^H!-8., F, 5:!:; !:9, !<; 66; S758!E7HD>:, !., H; 6>:7; 5!D.; K7H7; 5\!!

#5!:9,!,K,5:!;<!-5I!E7HD>:,4!=;5:.;K,.HI4!;.!=6-7F!-.7H758!J,:S,,5!I;>.! ;.8-57Y-:7;5!-5E!-5I!G\$!HIH:,F!;.8-57Y-:7;5!75!.,6-:7;5!:;!:9,!D.;K7H7;5!;<! / &) &@ * ?H!-5E!.,6-:,E!H,.K7=,H4!75=6>E758!F,E7=-6!H,.K7=,H!L9,.,75-<:,.!.,<,..,E! :;!=;66,=:7K,6I!-H!:9,!M_-.:7,HN!-5E!75E7K7E>-66I!-H!:9,!M_-.:IN04!:9,!_-.:7,H!H9-66! >H,!:9,7.!J,H:!,<<;.:H!:;!H,::6,!-F7=-J6I!:9.;>89!E7.,=:!5,8;:7-:7;5H4!-5I!H>=9! E7HD>:,4!=;5:.;K,.HII;,!=6-7F0!#<!:9,H,!5,8;:7-:7;5H!-.,!>5H>==,HH<>64!:9,!_-.:7,H! H9-66!-8.,,!:5!-5!-DD.;D.7-:,!F;E,!;<!H,::6,F,5:0!</pre>

! 1 f,!S;>6E!J,!8.-:,<>6!7<!I;>!=;>6E!Z75E6I!=;5<7.F!I;>.!;.8-57Y-:7;5^H!-8..,F,5:!S7:9!:9,! <;.,8;758!JI!=;>5:,.H785758!:97H!6,::,.4!J,6;S4!-5E!.,:>.5758!7:!:;!F,0! \$;:9758!75!:97H!=; FF>57=-:7;5!H9-66!J,!E,,F,E!-!S-7K,.4!, [D.,HH!;.!7FD67,E4!;<!:9,! D.7K76, 8, H!-5E!7FF>57:7, H!;<!!9, !G57:, E!\$-:7; 5H4!75=6>E758!7:H!H>JH7E7-.I!; .8-5H4!S97=9!-.,! 9,., JI!, [D., HH6I!., H, .K, E0! !! ! %75=...,6I!I;>.H4! ! ! ! "#\$%&'(!\$*/&!01!(3&!'&%#)&\$(!! ?00')#\$*(0'+!! ! ١ +=>22?!@A?!@1BA5CD2?=2?!E;!"#\$%&'(!\$+:&!-.!#\$F-0! **\$-F**, !; <!->:9; .7Y, E!

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$\frac{54612H! + DD! I 2>35A3J!(A1DK?(A=!L $134@MM! < 2 < E2>3J!@>2!>2NK(>2?!45!36=A!402!E2D5C!#AM5> < @465A!$, 631D53K>2! / 5A32A4! . 5> <! @3! @! 15A?(465A! 5M! E2GA=! I>5P6?2?! C640! / - 6# , 789! : & , & 6 + / !%2>P6123!E;!402!LA642?! \$@465A3!

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#4!:9, !>5E, .H785, E4!9, ., JI!-8., ,!:9-:!FI!F, E7=-6!.,=; .EH!; .!-5I!75<; .F-:7; 5!., 6-:758!:; !FI!9, -6:9! H:-:>H!; .!D, .H; 5-6!75<; .F-:7; 5!F-I!J, !., 6, -H, E!; .!:.-5H<, .., E4!75!-==; .E-5=, !S7:9!-DD67=-J6, ! 5-:7; 5-6!6-SH4!., 8>6-:7; 5H4!D; 67=7, H!-5E!D.; =, E>., H4!:; !-5I!:., -:758!D9IH7=7-5LH04!F, E7=-6! 75H:7:>:7; 5LH04!FI!, FD6; I, .4!-5I!G\$!HIH:, F!; .8-57Y-:7; 5H!75K; 6K, E!75!:9, !/&) &@*?!H, .K7=, H4! :97.E!D-.:I!H, .K7=, !D.; K7E, .!, 58-8, E!JI!:9, !G\$!:; !., K7, S4!D.; =, HH!-5E!7HH>, !D-IF, 5:H!<; .!F, E7=-6! H, .K7=, H4!!-5EW; .!., 6, K-5:!5-:7; 5-6!->:9; .7:7, H!:9-:!F-I!J, !75K; 6K, E!75!D.; K7E758!; .!-HH7H:758!S7:94! !

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#4!:9, !>5E, .H785, E4!9,., JI!.,=; 857Y, !:9-:!FI!:.-K, 6!; 5!8.; >5E!-5EW; .!-7.!:.-5HD; .:-:7; 5!<; .!F, E7=-6! ,K-=>-:7; 5!D>.D; H, H!E>, !:; !FI!F, E7=-6!=; 5E7:7; 5!., 6-:758!:; !? 0@#) ABC4!-H!S, 66!-H!-66!F, E7=-6! =-.,!:9-:!F-I!J,!D.; K7E, E!:; !F,!JI!:9,!G\$4!G\$!, 5:7:7, H4!G\$!=; 5:.-=:; .H!-5EW; .!8; K, .5F, 5:! ->:9; .7:7, H!-5E!:9, 7.!D, .H; 55, 64!7H!H; 6, 6I!<; .!FI!; S5!=; 5K, 57, 5=, !-5E!J, 5, <7:4!-5E!F-I!:-Z, !D6-=,! 75!-., -H!; .!>5E, .!=; 5E7:7; 5H!; <!HD, =7-6!.7HZQ!#5!=; 5H7E, .-:7; 5!; <!., =, 7K758!H>=9!:.-5HD; .:-:7; 5!-5E! F, E7=-6!=-., 4!#!9,., JI\!

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L-0! *HH>F,!-66!.7HZH!-5E!67-J767:7,H!75!=;55,=:7;5!S7:9!:9,!D.;K7H7;5!;<!H>=9! :.-5HD;.:-:7;5!-5E!F,E7=-6!=-.,]!

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LJ0! ',=;857Y,!:9-:!5,7:9,.!:9,!G57:,E!\$-:7;5H4!5;.!-5I!;<!7:H!;<<7=7-6H4!,FD6;I,,H!;.!

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L "#\$%&'('!)*!+%%&),+-&'0!#!-F!:9,!D,5:!;.!6,8-6!8>E7-5!; hhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhh</td			
LM F I != 976EN04!-5E!9,., J I !-8., ,!:; ! F I != 976E^H!:K,6!; 5!8.; >5E!-5EW; .!-7.!:5HD; .:-:7; 5!-5E!:; !:9, !			
D.;K7H7;5!; F,E7=-6!=,!:;!FI!=976E!;5!:9,!-J;K,!=;5E7:7;5H4!75!:9,!=;5:,[:!;<!?0@#)ABC!F,E7=-6!</td			
K = -:7; 5!H, K7 = H!JI!:9, !G			
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