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

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& ' (') ! * + ! * , - . / ³³!

"# \$!

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4: 1 1 , .3(!B'.'>3(8+'A3.6>,5.'88!9-8!(9'!2:('.(3-5!-.6!2:@')!(;!3 1 2):<'!
2':25^8!53<'8+!

X!9-<'!@)3(('.! 1 ,49!'58'@9')!'-B:,(!9:@! 1 3.6>,5.'88!4- .!3 1 2):<'!
6'4383: .a1 -C3./! B;! 5-@! 8(,6' .(8-! 5-@;')8-! -.6! :(9')8^P! ! F938! 3.<3('6!
8; 1 2:83, 1!4: .()3B,(3: .!4: 1 25' 1' .(8!(9:8'!-)(345'8!B;! :>>')3./!8: 1'!5-@!
8(,6' .(8'!)>5'4(3: .8!-B:,(! 1 3.6>,5.'88!3.!(9'3)!:@ .!<:34'8!-.6!@:)68!!F938!
3.<3('6! 8; 1 2:83, 1! 4: .()3B,(3: .! 6' 1 :.8!)-(8! 9:@! 1 3.6>,5.'88! 4- .!
>-4353(-('! (9'! 2:83(3<'! 2')8: .-5! -.6! 2):>'883: .-5! 6'<'5:2 1' .(! :>! 5-@!
8(,6' .(8! B;! 2)'8' .(3./! '74')2(8! :>! 5-@! 8(,6' .(8~! -.8@'8)! 6384,883./!
1 3.6>,5.'88!(;!b,'8(3: .8!>): 1!(9'!>3.-5!'7- 1 3.- (3: .! :>! (9'!4: ,)8'Z! ?' /-5!
0(9348!-.6!&):>'883: .-538 1 +^!! \ :(-B5;=(9'!b,'8(3: .8! . '3(9'!) -8C!'725343(5;!
-B: ,(!. :)!82'43>34-55;!)>'!)(: ! 1 3.6>,5.'88+!

A;!82)3./!D#\$S!8'4(3: .! :>! ?' /-5! 0(9348!-.6!&):>'883: .-538 1!3.a45-88!
>3.-5!'7- 1 3.- (3: .!3.45,6'6!(9'8'!b,'8(3: .8Z!

TS\$! I '>5'4(!,2: .!(9)'! !3.83/9(8! -B: ,(15' /-5! '(9348!-.6c:!)2):>'883: .-538 1!
(9-(!; ,!5'-). '6!>): 1!-(15'-8(!: . '!>!: ,)!.: .a/,'8(182'-C')!45-88'8+!

TDV! I '>5'4(!,2: .!(9)'! !3.83/9(8! -B: ,(15' /-5! '(9348!-.6c:!)2):>'883: .-538 1!
(9-(!; ,!5'-). '6!>): 1!-(15'-8(!: . '!>!: ,)!/,'8(182'-C')!2)'8' .(- (3: .8+!

TEV!&):<36'!-.6!)>5'4(!,2: .!; , ,)!:@ .!'7- 1 25'!T. :(16384,88'6!3.!45-88V! :>!
9:@!; ,!4- .!-225;!-!4: .4'2!(9-(!; ,!5'-). '6!>): 1!; ,)!45-88'8'!)!)-63./8!
(9-(! @355! 3 1 2):<'! ; ,)! 5' /-5! '(9348!-.6c:!)2):>'883: .-538 1! 6'4383: .a
1 -C3./+!

Q,(! :>! (9'!(93)(;a'3/9!(8(,6' .(8!3.!(9'!4: ,)8'=!8: 1'!T>: ,)!8(,6' .(8-! :)!
\$#P d! :>! (9'!45-88V!636! .:(!6384,88! 1 3.6>,5.'88!3.!. - . ;! :>! (9'3)! - .8@')8+!!
A- . ;!T'5'<' .!8(,6' .(8-! :)!D^+e d! :>! (9'!45-88V!6384,88'6! 1 3.6>,5.'88!3.!. : . '!
!

E] IOFK*0\! YX! GF0XM?0=! ?OHMX\]! f IQA! WxYF*x\Z! KQ\GKXQJG! GQKXH?!
K*H\] 0!H\M!AX\MfJ? \ OGG!fQ!GQKXH?X\ \ QRHFxQ\ !TD#\$SUV:!
" TT

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:>! (9'3)! -.8@')8=! '<' .! 1 :)!'!T>:,)('' .! 8(,6' .(8=! :)! ES+^d! :>! (9'! 45-88V!
6384,88'6! 13.6>,5. '88!3.!(@:!! :>! (9'3)! -.8@')8=! -.6! -/-3.!! 1-. ;! T.3. '!
8(,6' .(8=! :)!DE+S d! :>! (9'!45-88V!6384,88'6! 13.6>,5. '88!3.!!-55!(9)' '!:>! (9'3)!
-.8@')8+!

X! 2):<36'! B'5: @! -! 8- 125'! :>! '74')2(8! >): 1! 8(,6' .(8'! -.8@')8! (9-(!
6384,88!13.6>,5. '88=(:!' -49!:>! (9'!-B:<'!(9)' '!'b, '8(3: .8+!!F9'8'!)>5'4(3: .8!
-)'!)'2)'8' .(-3<'! :>! : (9')!8(,6' .(8'! -.8@')8!3.!(9'!8' .8'!(9-(! 1-. ;! : (9')!
8(,6' .(8'!-.8@')8!@)'!'b,3('!83135-)!3.!(9'!3.83/9(8!(9-(!8(,6' .(8!6384,88'6+!

X+: I of?0KF!J&Q\!F* I00!X\GX] *FG!HLQJF! ?0]H?!OF*XKG!H\McQI!
&IQf0GGXQ\H?XGA!F*HF! [QJ! ?0HI \OM!f IQA!HF! ?0HGF!Q\O!Qf!
QJI!\Q\ a] J0GF!G&0HY0I!K?HGG0G

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A3.6>,5. '88!38!<');!3 1 2:)(-.(!:!5' /-5!'(9348!- .6!2):>'883: .-538 1+!!H!
5:(! :>!2: :)!'(934-5!6'4383: .8!)'8,5(!>): 1!B'3. /! , .-@-)'=! . :(!4: .836')3. /!
(9'!2:883B5'! : ,(4: 1 '8=:!)! 1 -C3. /!6'4383: .8! : !- , (:235:(+!!A3.6>,5. '88!4- .!
4: 1B-(!9'8'!2):B5' 18!B;!-55:@3. /!8: 1 ' : . '!(:!2- ;!-((' :3: .!(:!938! :)9')!
(9: ,/9(8!- .6!8,)) : , .63. /8!3. !-!4-)3. /!6384') .3. /!- .6! :2' .9'-)('6!@- ;+!
A3.6>,5. '88! 4- .! 9'52! 4: 1B-(! '934-5! B53.6! 82:(8! 85322') ;! 85:2'8! 3. (:!
, . '(934-5!B'9-<3:)=!- .6!'(934-5!>-63. /+!! J .>:)(, .-('5;=!2' :25'!-)')! ,8, -55;!
<'a: 2(3 1 38(34! -B: ,(!9'3)! -B353(3'8! (:!>37! :)! 1 - .- / '!'(934-5! 2):B5' 1 8+!!
A3.6>,5. '88!4- .!)' 1 3. 6!-!2)-4(3(3: . ')! (:!4-) '>,55;!4: .836')!-55!-82'4(8! :>!-!
5' /-5! :)!'(934-5! 635' 1 1 -+! ! H663(3: . -55;=! 3(! 38! 63>>34,5(! (:! 6'('4! @9' .!
4: .6,4(! :)!83(, -(3: .8!6' /)-6'! /)-6, -55;+!!W9-(!8(-)('6! : ,(!-8!-!8 1 -55!5-28'
3. !j, 6/ 1 ' .(! 4- .! b,34C5;! 8. : @B-55! 3. (:! -! 1 ,49! B3//')!'(934-5! 2):B5' 1!
@3(9: ,(!9'!2)-4(3(3: . ')!)-53h3. /+!!A3.6>,5. '88!4- .!4)'-(!-2(():22.-2(0)2-2) .(+

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2-)(34,5-)!@-;=@3(9!-.!-((3(,6'!:>!. :.j,6/1'.(=!-.6!@3(9!(9'!3.(' .(3: .! :>!
3.4)'-83./!:. `8!4-2-43(!>:)-@-)' . '88!3.!(9'!2)'8'.(!1:1'.(+1!!X!B'53'<'!
(9-(!3>!. : ,)!3.(' .(3: .8!-)'!B'3./!-@-)'!3.!(9'!2)'8'.(!1:1'.(=!; ; ,!@355!B'!
1:)'!(934-5!B;!-88'883./!9:@!; ; ,)!2)'8'.(!-4(3: .8!@355!->>'4(!; ; ,)!453'.(!
-.6! ; ; ,)8'5>!3.!(9'!>,(,)'! ! X.!' -663(3: .=! 3> ; ; ,! 9-<'! -.! -((3(,6'! :>!
:. :.j,6/1'.(=!; ; ,!-)'!-B5'!(;!)'-(! '-49!453'.(8!2):B5'1!@3(9!-.! :2'.!
13.6-!@9349!@355!5'-6!(;!1:)'!2):>'883:.-5381+!

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- .!'(934-5!5-@;')!;*')!>:4,8!:..!8'5>!@-8!) '<' -53. /='82'43-55;!B'4-,8'
X!(93.C!3(138!-!1 :)!4: 1 1 : .!2')4'2(3: .!(:(!93.C!(9-(!@:));3. /!-B:, (1453' .(8!
-.6! (9'3)! 2):B5' 18! 13/9(! B'! (9'! B'8(! @-;! (:! B'9-<'! '(934-55;! - .6!
2):>'883: .-55;+!

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49- ./ '8!3. !B'9-<3:)!4-.!-66!83/ .3>34-. (5;!(! 1 ;!-B353(;!(;!B'! 13.6>,5!3.!
-. ;!/3<' .!83(-3: .=-.6!3.!(,).!-4(!1 :) '12):>'883: .-55;+!

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(: ! / '(! 9' -5(9;+! ! H.6! B'3. /! 13.6>,5! 38! 4)3(34-5! >:)! ,.6')8(-.63. /! - .6!

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F938!45-88!9-8!(-,/9(!1'!(9-(!X!1,8(!'.8,)!!(9-(!X!-1!9-22;!-.6!
4:.(('(!3.!1;!2')8:.-5!53>'!3.! :)6')!(;!B'!9-22;!-.6!>,5>355'6!3.!1;!;
2):>'883:.-5!53>'!!\:;!1-((')!@9-(!X!6:!2):>'883:.-55;!:)!9:@!1,49!1:.'!;
X!1-C'=:!)!9:@!8,44'88>,5!X!B'4:1'=@!3(9:,(!9-223.'88!-.6!>,5>3551'.(!3.!
1;!2')8:.-5!53>'!3(!@355!.'<')!B'!'.'.,/9+!X!B'53'<'!(9-(!938!8(-)(8!@3(9!
2)-4(343./!13.6>,5.'88!3.!-55!:>!1;!53>'=B,(!'82'43-55;!3.!1;!2')8:.-5!53>'!
X.!4:.45,83:.=!(9'!-B:<'!'74')2(8!:>!5-@!8(,6'.(8`!-.8@')8!(;!>3.-5!
'7-13.-(:.!b,'8(3:.8!3.!-!8'4(3:.! :>!-!)'b,3)'6!5' /-5! '(9348!-.6!
2):>'883:.-5381!4:,)8!'355,8(-!'!8:1'!5-@!8(,6'.(8`!>)'5'4(3:.8!-B:,(!
13.6>,5.'88+! !H8!(9'8'!8(,6'.(8`!:@.!<:34'8!-.6!@:)68!<3<365!;
6'1:.(8)-('=!9'!B'.'>3(8!:>!13.6>,5.'88!4-.'!B'!6)-1-(34!>-)a)'-493./=!
3.63<36,-5!1'1:)-B5'!=!2')8:.-5!2:@')>,5!2):>'883:.-5!8:43-5!8;8('134=1313