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CB<5 i NPO5\,1317+,5\W/$%/0+135 05
CB<5 i i 005C&/$.5<1$+,L5 05
CB<5 i i PO5C&/$.5<1$+,L5/3'5@/!5 05
CB<5 i ZN05_1W&937&305E+3/3,+3:51?5C&/$.5/3'5C&/$.55 05
5 H/9&5
CB<5 i VX05H/) #013&5>&7+3/95+35C&/$.5B/3/:&7&305/3'55 05
5 <1$+,L5

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U, Y&G4)8."3)k@A&8\*)(".#C&

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! , % , + ) ; ) % . & 7 $ - * # ) k @ E & 8 * ) ( " . # C &
<d8C5 i PP05B/3/: &9+/$5A#) &, 0#5175<%*$+,5C&/$.55 05
5 <9/,0+, &55 05
CB<5 i Q005B/3/: &7 &305175C&/$.5H/9&5h9:/3+[/0+13#5 05

```

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=$-%(#&7$-*#)k@8: $$#)&$%)C&
<d8C5 i V005<%*$+,5C&/$.5F1%3' #5 05
CB<5 i V005C&/$.5B/3/: &7 &305/3' 5<1$+,L5F1%3' #5

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V%.)*%#: "W&@8: $$#)&$%)C&
<d8C5 i VP05<9/,0+, &5\4)&9+&3, &5+35<%*$+,5C&/$.5 05
CB<5 i VP05M30&93#.+)5

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+3, \$%' &#53+3&5, 9&' +0#51?5, 1%9#&! 19U5?91 750. &5=1+#L5  
H1\$\$&: &51?5C&/\$. 5>, +&3, &#5B">"5' &: 9&&"55

**8HE,55," J&: \$L\*,(\$E\$J05&**

>0%' &30#5 7%#05 7&&05 0. &5 /' 7###+135 9&] %&9& 7&30#5  
/3' 5 \* &5 /' 7+00&' 5 +3015 \*10.5 ' &: 9&&5 )91: 9/7#5  
/, ,19'+3: 5 015 0. &5 )91, &##&#5 1?5 &/, .5 1?5 0. &5  
) /90+, +) /0+3: 5 /, /' &7+, 5%3+0#5+35 19' &95015%) %9#%&5/5  
' %/\$5' &: 9&&5) 91: 9/7"5M3' +W+' %/\$#57/L5/)) \$L50150. &5  
B"<"C"5 ' &: 9&&5 )91: 9/75 , 13, %99&30\$L5 ! +0.5  
) \$+, /0+135015195?1\$! +3: 50. &+95/' 7###+1350150. &5  
=1+#L5 H1\$\$&: &5 1?5 C&/\$. 5 >, +&3, &#s5 . 1! &W&9;5  
' 7###+1350150. &5' %/\$5' &: 9&&5) 91: 9/75+#5, 130+3: &305  
) 135/' 7###+135015 \*10.50. &5 B"<"C"5/3' 50. &5 B">"5  
' &: 9&&5) 91: 9/7#"5

**) ("%( /E&: \$L\*,(\$E\$J05&&**

=) > - "\*" (&7\$\*) &7\$ - \*#) #&@E0&8\*) (" . #C&  
8>C5 i 00058&. /W+19/\$5>, +&3, &5/3' 5<%\* \$+, 5C&/\$. 5 05  
8>65 i 0005<9+3, +) \$&#51?58+1#0/0+#0+, #5 05  
\hC5 i 0005\3W+913 7&30/\$5/3' 5h, , %) /0+13/\$5C&/\$. 5 05  
\<M5 i 0005<9+3, +) \$&#51?5\)+ ' &7+1\$1: L5 05  
<d8C5 i OP05B###+135/3' 5<9/, 0+, &51?5\_ \$1\* /\$5<%\* \$+, 5C&/\$. 5 05  
CH\5 i ON05\0. +, /\$5M##%&#5+35<%\* \$+, 5C&/\$. 5 05  
8>=<5 i P005<%\* \$+, 5C&/\$. 5/3' 5=##/ #0&9#5 05  
=M\65 i Q005H1 7 7%3+0L5D%09+0+135 05  
=M\65 i Y005D%09+0+135\ ' %, /0+135 05  
CB<5 i 0005C&/\$. 5H/9&5h9: /3+[ /0+135 05  
CB<5 i i 005C&/\$. 5<1\$, L5 05  
CB<5 i i NO5@&: +\$/\$0+W&5C&/\$. 5<1\$, L5/3' 5<91, &' %9&#5 05  
<d8C5 i VX05H/) #013&5+35<%\* \$+, 5C&/\$. 5<9/, 0+, &5 05  
=M\65 i Yi 05</0+&30(H\$+&305D%09+0+135B/3/: &7 &3055 05  
5 5 <9/, 0+, %75 05

! , %, +); ) % . &7\$ - \*#) #&@E&8\*) (" . #C&  
<d8C5 i PP05B/3/: &9+/\$5A#) &, 0#51?5<%\* \$+, 5C&/\$. 55 05  
5 5 <9/, 0+, &55 05  
CB<5 i Q005B/3/: &7 &3051?5C&/\$. 5H/9&5h9: /3+[ /0+13#5 05

= \$ - % (#&7\$ - \*#) #&@8: \$ \$ #) &\$ % ) C&  
<d8C5 i V005<%\* \$+, 5C&/\$. 5F1%3' #5 05  
CB<5 i V005C&/\$. 5B/3/: &7 &305/3' 5<1\$, L5F1%3' #5 05

NW) 8", 4&N. - (K&1\$\* &GZ, ; #&@8: \$ \$ #) &\$ % ) C&  
<d8C5 i Vi 05>) &, +/\$5>0%' L5?195\4/7 +3/0+13#5 05  
CB<5 i Vi 05>) &, +/\$5>0%' L5?195\4/7#5 05

<O<2U&7=G/V<NT&JB&  
**!" J0,J\* /0," J&30/JH/(H5&**  
>0%' &30#5 7%#05 7 /+30/+35/5, %7%\$/0+W&5\_<A5 1?5Q"005  
+35/\$\$59&] %&9&' 5: 9/' %/0&() 91?&##+13/\$5, 1%9#&#"55

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**A83<7: &=B& ) ?D6;! &. 786<. &2&A83<7: &  
=B&3 = !; 86&W = : X&9 ? 86&97@ : 77&**

**=F\$(F,\$G&**  
6. &5B/#0&951?5>1, +/\$5G19U;5H\$+3+, /\$5H13, &309/0+13:5  
/3' 5B/#0&951?5<%\* \$+, 5C&/\$. 5;<%\* \$+, 5C&/\$. 5<9/, 0+, &5  
H13, &309/0+13:5 +#5 /5 ' %/\$5 ' &: 9&&5 )91: 9/75 +35 0. &5

H1\$\$&: &5?195<%\* \$+, 5C&/\$. 5/3' 5>1, +/\$5K%#0+, &: 5! . . . 5  
+#5/, , 9&' +0&' 5\* L50. &5H1%3, +\$5135\ ' %, /0+135?195<%\* \$+, 5  
C&/\$. 5 6. +#5 +30&: 9/0&' 5 )91: 9/75 9&] %&9&#5  
, 17) \$&0+1351?5 \*10.50. &5 B">"G"5/3' 5B"<"C"5' &: 9&&5  
&9&] %&9& 7&30#"55

**8HE,55," J&: \$L\*,(\$E\$J05&**

>0%' &30#5 7%#05 7&&05 0. &5 /' 7###+135 9&] %&9& 7&30#5  
/3' 5 \* &5 /' 7+00&' 5 +3015 \*10.5 ' &: 9&&5 )91: 9/7#5  
/, ,19'+3: 5 015 0. &5 )91, &##&#5 1?5 &/, .5 1?5 0. &5  
) /90+, +) /0+3: 5 /, /' &7+, 5%3+0#5+35 19' &95015%) %9#%&5/5  
' %/\$5' &: 9&&5) 91: 9/7"5M3' +W+' %/\$#57/L5/)) \$L50150. &5  
B"<"C"5 ' &: 9&&5 )91: 9/75 , 13, %99&30\$L5 ! +0.5  
) \$+, /0+135 015 0. &5 >, . 11\$5 1?5 >1, +/\$5 G19U5 195  
?1\$! +3: 50. &+95/' 7###+1350150. &5 >, . 11\$5 1?5 >1, +/\$5  
G19Us5 . 1! &W&9;5 /' 7###+135 015 0. &5 ' %/\$5 ' &: 9&&5  
) 91: 9/75+#5, 130+3: &305%) 135/' 7###+135015 \*10.50. &5  
B"<"C"5/3' 50. &5 B">"G"5' &: 9&&5) 91: 9/7#"5

**) ("%( /E&: \$L\*,(\$E\$J05&&**

=) > - "\*" (&7\$\*) &7\$ - \*#) #&@E0&8\*) (" . #C&  
8>C5 i 00058&. /W+19/\$5>, +&3, &5/3' 5<%\* \$+, 5C&/\$. 5 05  
8>65 i 0005<9+3, +) \$&#51?58+1#0/0+#0+, #5 05  
\hC5 i 0005\3W+913 7&30/\$5/3' 5h, , %) /0+13/\$5C&/\$. 5 05  
\<M5 i 0005<9+3, +) \$&#51?5\)+ ' &7+1\$1: L5 05  
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CH\5 i ON05\0. +, /\$5M##%&#5+35<%\* \$+, 5C&/\$. 5 05  
8>=<5 i P005<%\* \$+, 5C&/\$. 5/3' 5=##/ #0&9#5 05  
=M\65 i Q005H1 7 7%3+0L5D%09+0+135 05  
=M\65 i Y005D%09+0+135\ ' %, /0+135 05  
CB<5 i 0005C&/\$. 5H/9&5h9: /3+[ /0+135 05  
CB<5 i i 005C&/\$. 5<1\$, L5 05  
CB<5 i i NO5@&: +\$/\$0+W&5C&/\$. 5<1\$, L5/3' 5<91, &' %9&#5 05  
<d8C5 i VX05H/) #013&5+35<%\* \$+, 5C&/\$. 5<9/, 0+, &5 05  
=M\65 i Yi 05</0+&30(H\$+&305D%09+0+135B/3/: &7 &3055 05  
5 5 <9/, 0+, %75 05

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<d8C5 i PP05B/3/: &9+/\$5A#) &, 0#51?5<%\* \$+, 5C&/\$. 55 05  
5 5 <9/, 0+, %75 05



\, 4-) #&] &G.: "8#&7\$- \*#) #&@A&8\*") (. #C&  
 >GFa5 i Z005b/\$%&#5/3' 5\0. +, #5 05  
 >GFa5 i ZYV58&. /W+195H. /3: &5/3' 5\0. +, #5+35A))\$+&' 55  
 5 5 8&. /W+195A3/\$L#+#5 05

=) #), \*8: &! ).. : \$(&7\$- \*#) #&@E&8\*") (. #C&  
 >GFa5 i Zj Z5F&#&/9, . 5B&0. 1' #5?195>1, +/\$5G19U55 05  
 5 5 <9/, 0+, &5M5  
 >GFa5 i Zjj 5F&#&/9, . 5B&0. 1' #5?195>1, +/\$5G19U55 05  
 5 5 <9/, 0+, &5MM5

2(3, %8) (&X\*, 8."8)&7\$%8) %.\*, ."\$%&7\$- \*#) #&@A&  
 8\*") (. #C&  
 >GFa5 i Zj i 5h9: /3+[/0+13/\$5<91: 9/75<\$/33+3: 5 05  
 >GFa5 i ZNP5H177%3+0L56. &19L5R5<9/, 0+, &55 05

7\$%8) %.\*, ."\$%&X\*, 8."8-; &@A&8\*") (. #C&  
 >GFa5 i j NO5H13, &309/0+135M30&: 9/0+W&5>&7+3/955 P5  
 >GFa5 i j QN5H\$+3+, /\$5<9/, 0+, %75MM5 N5  
 >GFa5 i j QQ5H\$+3+, /\$5<9/, 0+, %75MMM5 05

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 >0%' &30#57%#057/+30/+35/5, %7%\$/0+W&5\_<A51?5Q"005  
 +35/\$\$59&] %+9&' 5: 9/' %/0&() 91?&##+13/\$5, 1%9#&#"55  
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**A83<7: &=B&3! ;7>! 7&**



**9 = ! <= : &= B & ) . ; 6 = 3 = ) . M & ; > & ) ? D 6 ; ! &**

**. 7 8 6 < . & 3 < ? 9 ; 7 3 &**

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& 4 ) & 9 0 + # & 5 + 3 5 9 & # & / 9 , . 5 ' & # + : 3 ; 5 7 & 0 . 1 ' # 5 / 3 ' 5  
' + # # & 7 + 3 / 0 + 1 3 " 5 > 0 % ' & 3 0 # 5 : / + 3 5 / 5 # 1 \$ + ' 5 % 3 ' & 9 # 0 / 3 ' + 3 : 5  
1 7 5 ) % \* \$ + , 5 . & / \$ 0 . 5 # , + & 3 , & ; 5 + 3 , \$ % ' + 3 : 5 0 . & 5 ' + # 0 9 + \* % 0 + 1 3 5  
/ 3 ' 5 ' & 0 & 9 7 + 3 / 3 0 # 5 1 7 5 . & / \$ 0 . 5 / 3 ' 5 ' + # & / # & 5 / , 9 1 # # 5  
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7 & 7 \* & 9 5 / # 5 7 & 3 0 1 9 5 ? 9 1 7 5 ' / L 5 1 3 & " 5 < . " = " 5 # 0 % ' & 3 0 # 5  
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1 0 . & 9 5 # 0 % ' & 3 0 # 5 / 3 ' 5 ? / , % \$ 0 L 5 0 1 5 ? 1 9 : & 5 0 . & + 9 5 9 & # & / 9 , . 5  
) / 0 . ! / L " 5 = 1 , 0 1 9 / \$ 5 # 0 % ' & 3 0 # 5 / 9 & 5 & 4 ) & , 0 & ' 5 0 1 5  
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2 1 % 9 3 / \$ 5 , \$ % \* s 5 ! 1 9 U # - + 3 - ) 9 1 : 9 & # # 5 # & 7 + 3 / 9 # s 5 / 3 ' 5  
, / ' & 7 + , 5 / 3 ' 5 ) 9 1 ? & # # + 1 3 / \$ 5 ) 9 1 : 9 / 7 7 + 3 : 5 1 % 0 # + ' & 5 1 7 5  
0 . & 5 , \$ / # # 9 1 1 7 " 5 = 1 , 0 1 9 / \$ - # 0 % ' & 3 0 5 9 & # & / 9 , . 5 + # 5  
# . 1 ! , / # & ' 5 / 0 5 0 . & 5 ?

)%\*\$+,5. &/\$.5#0%' +&#5#0/0&' 50. &L5?1%3' 5/521\*5+35  
0. &+95?+&\$' 5\*&?19&5: 9/' %/0+13;5195! +0. +35#+457130. #5  
1?5 :9/' %/0+13"5 5 \_9/' %/0&#5 :15 135 015 ! 19U5 /#5  
,/' &7+, #5 +35 %3+W&9#+0+&#5 /3' 5 9&#&/9, . &9#5 +35  
7&' +, /\$5 , &30&9#;5: 1W&937&30;5. &/\$.5 /: &3, +&#5 195  
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8>=<5 i P005



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>,+&3,&;5 7/0.5 /3'5 .%7/3+0&#5 ,1%9#&#5 /3'5  
&&0,W&#5?+\$51%050. &59&7/+3' &951?50. &5PNO5,9&' +0#5  
9&] %+9&' 5?1950. &57/219"5

+3' +, /0195 1?5 0. &5 #0%' &30`#5 /\*+\$+0L5 015 7&&05 0. &5  
,/' &7+,59+: 19#51?5>/+305@1%+#5 d3+W&9#+0L5/3' 5/9&5

^5\W&9L5#1,+/\$5! 19U5#0%' &3059&,&+W&#5)&9#13/\$+['&' ;5  
13&-13-13&5#%) 1905?91 75/5?/, %\$0L57 &30195/3' 5  
,/' &7+,5/' W+#19"5

^5 6. &5,%99+,%\$% 75/\$\$1! #5#0%' &30#5015&4)\$19&5/9&/#5  
1?5+30&9&#050. 91%:. 50. &5)912&,0#50. &L5)%9#%&5  
/3' 5)9/,0+, %7"5

^5 6. 91%:. 5?+&\$' ! 19U5/3' 5#&9W+, &5&\$/93+3: 5#1,+/\$5  
! 19U5#0%' &30#5: /+359&/-\$-! 19\$' 5! 19U5&4)&9+&3, &5  
1%0#+' &50. &5,\$/#9117"5

**B,\$#HG "(I&/JH& : \$5\$ / (-1&=KK" (0\* J,0,\$5&**

E195 #0%' &30#5 +30&9&#0&' 5 +35 /5 : \$1\*/\$5 &' % ,/0+13:5  
0. &9&5/9&5/5! +' &5W/9+&0L51?5#0%' L5/\*91/' 5)91: 9/7#;5  
+3,\$%' +3: 5 /5 ,/7)%#5 \$1,/0&' 5 +35 B/' 9+' ;5 >)/+3"5  
>0%' &30#5+350. &#5#1,+/\$5! 19U57/2195,/35/\$#1&5&391\$\$5+35  
/50! 1-! &&U5&4)&9+&30+/\$5,1%9#&5+35\_. /3/;5B&4+,1;5  
H%\*/5195M3'+/;5! .+, .5?&/0%9&#5,13,&309/0&' 5#0%' L:5  
\$&,0%9&#5/3' 5+30&9/,0+13#5! +0. 50. &5)&1)\$&5 1?50. &5  
9&#)&,0+W&5,1%309L"55

E9175 #0913:5 #&9W+,&-\$&/93+3:5 ,17)13&30#;5  
#0%' &30#5&7\*1' L50. &5d3+W&9#+0L`#5K&#%+057##+135\*L5  
%#+3:50. &5U31! \$&' : &50. &L5: /+35+350. &5,\$/#91175015  
#&9W&5 10. &9#\*5 M35 /' '+0+135 015 W1\$30&&95 ! 19U:5  
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! +0. 5 :%+' /3,&5 ?9175 #&/#13&' 5 )91?&##+13/\$#5  
0. 91%:. 5)/903&9#. +)#5! +0. 5 719&50. /35 Ni 05 #1,+/\$5  
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>1,+/\$5! 19U5: 9/' %/0&#5?9175>/+305@1%+#5 d3+W&9#+0L5  
/\$#15\$11U5?19! /9' 5015,/9&&9#5+35/5! +' &5W/9+&0L5 1?5  
#&00+3: #5 d">"5 @/\*195 =&)/907&305 )912&,0+13#5  
+3' +, /0&5/5#0&/' L5' &7/3' 5+35#1,+/\$5! 19U521\*#5+350. &5  
L&/9#5/. &/' "5 B1#05#1,+/\$5! 19U&9#5#)&,+/\$+[&5+35/35  
/9&/51?5)9/,0+, &;5+3,\$%' +3: 5\*%053105\$+7+0&' 501f5

^5 H\$+3+, /\$5! 19U5  
^5 H. +\$' 5! &\$?/9&5195?/7+\$L5#&9W+, &#5  
^5 B&30/\$5. &/\$. 5  
^5 >,. 11\$#5  
^5 <1\$+, L57/U+3: 5/3' 5/' W1, /, L5

**8HE,55," J& : \$L \*,(\$E \$J05&**

9\*)# : ; , %&  
A\$\$5/))\$+, /0+13#5/9&50. 191%:. \$L59&W+&! &' 5! +0. 50. &5  
. +: . &#05' &: 9&&51?5+3' +W+' %/\$5,/9&5/3' 5,13#+&' &9/0+135  
015 /\$5 ,9&' &30+/\$#5 0. /05 /9&5 #%\*7+00&' 5 >1\$+' 5  
,/' &7+,5 )&9?197/3, &5 +35 ,1\$\$&: &5 )9&)/9/019L5  
,1%9#&5! 19U5+#5/5)9+7/9L5,13, &935+359&W+&! +3: 5/5  
?9&#. 7/35/) )\$+, /30`#5?+\$&"5 H1\$&&: &5/' 7##+1350&#05  
#,19&5 SAH65 195 >A6T5 /9&5 %&#&' 5 /#5 /35 /' '+0+13/\$5

\D_@5 PV005A' W5>09/0&: +&#51?5F. &019+, 5R5F&#&/9, . 5	05
\D_@5 NONO-NV005@+0&9/9L5>0%' +&#5	05
\D_@5 Y00058%#3&#5/3' 5<91?&##+13/\$5G9+0+3: 5	05
HB5 PN005<%*\$+, 5>)&/U+3: 5	05

R"#.\$*K&A&8*) (".#C&	
CM>65 PPP05195PPN05G19\$' 5C+#019L5	05
CM>65 NX005195NXPO5A7 &9+, /35C+#019L5	05

X: "4\$#\$W: K&] &<: )\$4\$+K&MB&8*) (".#C&	
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<CM@5 NOi O5\0. +, #5	05
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6C\h5 N4445 N0005\$&W&\$5195. +: . &956. &1\$1: L5, 1%9#&5	05

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>6A65 PP005M3091' % , 0+135015>0/0+0+, #5	05



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%3' &9#0/3' +3:5 1?50. &5#1, +/\$5! 19U5)91?&##+13;50. &5  
+##%&#50. /05#1, +/\$5! 19U5/' ' 9&##&#5/3' 50. &5W/\$%&#5  
0. /05' 9+W&50. &5)91?&##+13"5>0%' &30#57%#05, 17)\$&0&5



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^5 6h\E@5195<6\5A, /' & 7+, 5#, 19&5  
^5 H. & , U50. &5\3: \$+#. 5<91?+, +&3, L5<1\$, L5) /: &5?195  
#)&, +?+, 56h\E@5/3' 5<6\5#, 19&59&] %&9 & 7 & 30#"5  
>0%' & 30#57 /L5/\$# 15W+# +050. &5+30&93/0+13/\$5

**)("/E&.,%1#,%105&**

6. &5 B">"G"5 ' &:9&&5 )9&)/9&#5 #1,+/\$5 !19U5  
)91?&##+13/\$#5?195! 19U5! +0.5W%\$3&9/\*\$&5)1)%\$/0+13#5  
?/,+3:5 .&/\$. ;5 #1,+/\$;5 /3'5 &,1317+,5 . /\$\$&3: &#"5  
>1,+/\$5 !19U&9#5 /9&5 &'%,/0+13/\$\$L5 )9&)/9&'5 015  
)91W+' &5 #&9W+,&#5 +3,\$%' +3:5 0.&9/)L;5 )1\$+,L5  
/' W1,/,L;5 ,/#&5 7/3/: &7&30;5 :91%)5 !19U;5 ,9+##5  
+30&9W&30+13;5 ,.+ '\$' 9&35 /3'5 ?/7+\$L5 )9/,0+,&;5 /3'5  
\$&/' &9#.+)5 ?195 313)91?+05 19:/3+[/0+13#"5 B">"G"

: 9/305)91)1#/\$"555

=> > - "\*" ); )%.#&1\$\*&V%.)\*%, ."\$%, 4&N. - ( )%.#&  
^5 A5, 17)\$&0&'5=&,\$/9/0+1351?5E+3/3, +/\$5>%) ) 1905  
) /, U&05! +0.5/\$\$5/, , 17)/3L+3:5'1, %7&30#5  
^5 6h\E@51?5VN5195. +: . &95195<6\5A, /' &7+, 5#, 19&5  
^5 H. &, U50. &5\3: \$+#. 5<91?+, +&3, L5<1\$, L5) /: &5?195  
#)&, +?+, 56h\E@5/3'5<6\5#, 19&59&] %&9&7&30#"5  
>0%' &30#57/L5/\$#15W+#&050. &5+30&93/0+13/\$5  
)91#)&, 0#;5/))\$+, /30#5/3'5#0%' &30#5) /: &5?195  
719&5+3?197/0+135/\*1%05+30&93/0+13/\$5  
/) )\$+, /0+1359&] %&9&7&30#"5

2WW4"8, . "\$%&/), (4"%)#&  
E/\$\$5>&7&#0&9f5<9+19+0L5-5B/9, . 5P;5E+3/\$5' &/ '\$+3&5-5  
K%\$L5Pi 5

>)9+3:5>&7&#0&9f5<9+19+0L5-5h, 0"5P;5E+3/\$5' &/ '\$+3&5-5  
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=>)3")Y&X\*\$8)##

7\$(%)%.\*,. "\$%&X\*, 8."8-; &@A&8\*) (".#C&  
 >GFa5 i j NN5H13, &309/0+135<9/, 0+, %75MM55 N5  
 >GFa5 i j NQ5H13, &309/0+135<9/, 0+, %75MM55 Q5  
 >GFa5 i j QO5A8A5M30&: 9/0+W&5>&7+3/955 P5

7\$(%)%.\*,. "\$%&G4)8."3)#&@A&8\*) (".#C&

**!#,J,-/#&! "J-\$J0(/0,"J&**

2(3,(%) (&X\*, 8."8)&7\$(%)%.\*,. "\$%&7\$- \*#)#&@O&  
 8\*) (".#C&  
 >GFa5 i ZQQ5A' W/3, &'5H\$+3+, /\$5>1, +/\$5G19U5<9/, 0+, &5 Q5  
 >GFa5 i ZQY5C%7/358&. /W+195/3'50. &5>1, +/\$5\3W+9137&305  
 5 5 </905MM5 Q5  
 >GFa5 i ZXN5H\$+3+, /\$5=+/: 31#+#55 Q5

7\$(%)%.\*,. "\$%&X\*, 8."8-; &@A&8\*) (".#C&  
 >GFa5 i j NO5H13, &309/0+135M30&: 9/0+W&5>&7+3/955 P5  
 >GFa5 i j YN5H\$+3+, /\$5<9/, 0+, %75MM55 N5  
 >GFa5 i j YQ5H\$+3+, /\$5<9/, 0+, %75MM55 Q5

7\$(%)%.\*,. "\$%&G4)8."3)#&@MB&8\*) (".#C&

**!"EE\*J,0C&/JH&=(%/J,Z/0,"J&! "J-\$J0(/0,"J&**

2(3,(%) (&X\*, 8."8)&7\$(%)%.\*,. "\$%&7\$- \*#)#&@A&  
 8\*) (".#C&  
 >GFa5 i Zj i 5h9: /3+[ /0+13/\$5<91: 9/75<\$/33+3: 5 Q5  
 >GFa5 i ZNP5H177%3+0L56. &19L5R5<9/, 0+, &55 Q5

7\$(%)%.\*,. "\$%&X\*, 8."8-; &@A&8\*) (".#C&  
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 >GFa5 i j QN5H\$+3+, /\$5<9/, 0+, %75MM55 N5  
 >GFa5 i j QQ5H\$+3+, /\$5<9/, 0+, %75MM55

>0%' &30#5 ! +\$\$5 3&&' 5 015 #) &/U5 ' +9&, 0\$L5 ! +0. 5 0. &5  
>, . 11\$5 1?5@/! 59&:/9' +3:5, %99+, %\$\$759&] % +9&7 &30#5  
?1950. &5K"="5/3' 5! . +, . 5B">"G"5, 1%9#&#5?%\$?+\$50. &+95  
K"="59&] % +9&7 &30#"55

6. &5 B">"G"5 ' &: 9&&5 9&] % +9&7 &30#5 ?195 K"="(B">"G"5  
\* &: +35 +35 0. &5 #&, 13' 5 L&/95 1?5 \$/! 5 #, . 11\$5 /3' 5 /9&5  
0/U&350. 91%: . 1%050. &59&#051?50. &57 /09+, %\$/0+1351W&95  
0. &53&405Q5L&/9#"5

<O<2U&7=G/V<NT&I Q&

**! " J0,J\* /0," J&30/JH/(H5&**

>0%' &30#5 7%#05 7 /+30/+35/5, % 7%\$/0+W&5\_<A5 1?5 Q"005  
+35/\$\$59&] % +9&' 5: 9/' %/0&() 91?&##+13/\$5, 1%9#&#"55

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**A 83<7 : &=B&3 = !;86&W = : X&**



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7+3+#0&9#50151 \*0/+35 , \$+3+ , /\$5)91?&##+13/\$5\$+ , &3#%9&5  
/3' 5' &W&\$1)57+ , 915/3' 57 / , 915#U+\$#5?195 , 177%3+0L5  
#&9W+ , &"56. &5 , 17 \*+3/0+1351?50. &5B">"G"5' &: 9&&5/3' 5  
0. &5B"A"<">"5' &: 9&&59&] %&9&#5/57 +3+7%75010/\$51?5Zj 5  
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**8HE,55,"J&: \$L\*,(\$E\$J05&**

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/3' 5 \* &5 /' 7+00&' 5 +3015 \*10. 5 ' &: 9&&5 )91: 9/7#5  
/ , , 19' +3: 5 015 0. &5 )91 , &##&#5 1?5 &/ , . 5 1?5 0. &5  
) /90+ , +) /0+3: 5 / , /' &7+ , 5%3+0#5+3519' &95015) %9#%&5/5  
' %/\$5' &: 9&&5) 91: 9/7"5M3' +W+' %/\$#57/L5/) )\$L50150. &5  
B">"G"5 ' &: 9&&5 )91: 9/75 , 13 , %99&30\$L5 ! +0. 5 0. &5  
B"A"<">"5' &: 9&&5) 91: 9/75/05A] %&3/#5M3#0+0%0&"5

**)("%/E&: \$L\*,(\$E\$J05&&**

6)%)\* , 4"#. &9\$ - % ( , . "\$%&7\$ - \*#) #&@MH&8\*) (" . #C&  
>GFa5 i ZON5>1 , +/\$5<1\$+ , L5 05  
>GFa5 i Zi O5>1 , +/\$5G19U5<9/ , 0+ , &5! +0. 5M3' +W+' %/\$#;55  
5 5 E/7+\$&#;5/3' 5\_91%)#5 05  
>GFa5 i Zi P5>1 , +/\$5G19U5<9/ , 0+ , &5! +0. 5H177%3+0&#55  
5 5 /3' 5h9: /3+[/0+13#5 05  
>GFa5 i ZNi 5C%7/358& . /W+195/3' 50. &5>1 , +/\$5\3W+9137 &305 05  
>GFa5 i j PV5E1%3' /0+135M30&: 9/0+W&5>&7+3/95 P5

>GFa5 i ZXN5H\$+3+, /\$5=+/: 31#+#55 05

7\$(%8)%.\*, ."\$%&X\*, 8."8-; &@A&8\*) (".#C&  
>GFa5 i j NO5H13, &309/0+135M30&: 9/0+W&5>&7+3/955 P5  
>GFa5 i j YN5H\$+3+, /\$5<9/, 0+, %75MM55 N5  
>GFa5 i j YQ5H\$+3+, /\$5<9/, 0+, %75MM55 Q5

7\$(%8)%.\*, ."\$%&G4) 8."3) #&@MB&8\*) (".#C&  
M35)\$/, &51?5PN5, 9&' +0#51?5#1, +/\$5! 19U5&\$&, 0+W&#;5' %/\$5  
' &: 9&&5B"A"6. "(B">"G"5#0%' &30#50/U&5PN5, 9&' +0#51?5  
0. &1\$1: L5, 1%9#&#"5

<O<2U&7=G/V<NT&I Q&

!"J0,J\*/0,"J&30/JH/(H5&  
>0%' &30#57%#057/+30/+35/5, %7%\$/0+W&5\_<A51?5Q"005  
+35/\$\$59&] %+9&' 5: 9/' %/0&() 91?&##+13/\$5, 1%9#&#"55

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**A83<7 : &=B&3 = !; 8&W = : X&2&A83<7 : &  
=B&9;U;>;<M&0 ! => ! = : 9; 8&37A;> 8 : MR&  
9?86&97@ : 77&**

=F\$(F,\$G&  
6. &5B/#0&951?5>1, +/\$5G19U;5H\$+3+, /\$5/3' 5B/#0&951?5  
=+W+3+0L5+#5/5' %/\$5' &: 9

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)("%/E&:\$L\*,\$E\$J05&&

6)%)\*,4"#.&9\$-%(,."\$%&7\$-\*#)#&@MH&8\*)(".#C&  
 >GFa5 i ZON5>1,+/\$5<1\$,L5 05  
 >GFa5 i Zi O5>1,+/\$5G19U5<9/,0+,&5! +0.5M3'+W+'%/\$#:55 05  
 5 5 E/7+&#;5/3'5\_91%)#5 05  
 >GFa5 i Zi P5>1,+/\$5G19U5<9/,0+,&5! +0.5H177%3+0&#55 05  
 5 5 /3'5h9:/3+[/0+13#5 05  
 >GFa5 i ZNi5C%7/358&./W+195/3'50.&5>1,+/\$5\3W+9137&305 05  
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 >GFa5 i j YP5E1%3'/0+135<9/,0+,%75M55 N5  
 <d8C5 i OP05B###+135/3'5<9/,0+,&51?5\_\$1\*/\$5<%\*\$+,55 05  
 5 5 C&/\$.5 05

2(3,%8)(&N\$8",4&X\$4"8K&7\$-\*#)&@E&8\*)(".#C&  
 >GFa5 i ZOZ5<1\$,L5<9/,0+,&5?195>1,+/\$5K%#0+,&5 05

\,4-)#&] &G.: "8#&7\$-\*#)#&@A&8\*)(".#C&  
 >GFa5 i Z005b/\$%&#5/3'5\0.+,#5 05  
 >GFa5 i ZYV58&./W+195H./3:&5/3'5\0.+,#5+35A))\$+&'55 05  
 5 5 8&./W+195A3/\$L##5 05



^5 M30&9W+&! 5S1)0+13/\$T5

^5 <91?&##+13/\$5: 1/\$5#0/0& 7&305

=>-"\*); )%.#&1\$\*&V%.)\*%, ."\$%, 4&N. - ( )%.#&

^5 A5, 17)\$&0&'5=&,\$/9/0+1351?5E+3/3,+/\$5>%) 1905

)/, U&05! +0.5/\$5/, , 17)/3L+3:5' 1, %7&30#5

^5 6h\E@5195<6\5A, /' &7+, 5#, 19&5

^5 H. &, U51%95\3: \$+#. 5<91?+, +&3, L5<1\$+, L5) /: &5?195

#)&, +?+, 56h\E@5/3' 5<6\5#, 19&59&] %&9&7&30#"5n1%5

7/L5/\$#15W+#051%95+30&93/0+13/\$5)91#)&, 0#;5

/))\$+, /30#5/3' 5#0%' &30#5) /: &5?1957 19&5

+3?197/0+135/\*1%05+30&93/0+13/\$5/) \$+, /0+135

9&] %&9&7&30#"5

^5 MD6h5>@d51??&9#50. &5</0. ! /L5<91: 9/75?195

+30&93/0+13/\$5#0%' &30#5! . 15/9&5+30&9&#0&' 50. +#5

, 1%9#&5\*%05' 1531057&&050. &5' +9&, 05&309L5

9&] %&9&7&30#"5b+#05+301#0%' L", 17 (#\$\$( )91: 9/7#5

?195719&5+3?197/0+13"5

)("%(/E&:\$L\*,\$E\$J05&&

=)>-"\*)(&7\$-\*)#&d&U,Y&@E0&8\*)(".#C&

@AG5 ZN05H1309/,0#5M55

Q5

@AG5 ZNP5H1309/,0#5MM55

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@AG5 ZY056190#55

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^5 69/3#, 9+)0\$#T5  
 ^5 6. 9&&5, 13?+' &30+/\$5&00&9#51?59&, 177&3' /0+135  
 ^5 \_F\5#, 19&#5  
 ^5 Fr#%7r5  
 ^5 M30&9W+&! 5  
 ^5 >0/0&7&3051?5)%9)1#&5S0! 1-0. 9&&5)/: &#;5#+3: \$&-  
 #)/, &T5' &0/+5+3: 59&#&/9, . 5+30&9&#0#;5, /9&&95: 1/\$#5  
 /3' 5?+05! +0. 5, %99&305?/, %\$0L59&#&/9, . "5  
 ^5 G9+0+3: 5#/7)\$&5#%, . 5/#5/5)%\*\$+#. &' 5/90+, \$&;5  
 , 1%9#&5)/)&9;5/: &3, L50&, . 3+, /\$59&)1905195/5  
 : 9/305)91)1#/\$"555

>0%' &30#5, /35/))\$L5?195/5?%\$5195)/90+/\$5: 9/' %/0&5  
 /##+0/30#. +)5 ! +0. 5 0. &5 >, . 11\$5 1?5 >1, +/\$5 G19U"5  
 A))\$+, /0+13#5/9&5/, , &)0&' 5h, 0"5P-B/9, . 5P"5  
 E195719&5+3?197/0+13;5W+#+050. &5#0%' &305?+3/3, +/\$5

=)>-"\*); )%.#&1\$\*&V%.)\*%, ."\$%, 4&N. - ( )% .#&  
 ^5 A5, 17)\$&0&' 5=&, \$/9/0+1351?5E+3/3, +/\$5>%)1905  
 )/, U&05! +0. 5/\$5/, , 17)/3L+3: 5' 1, %7&30#5  
 ^5 6h\E@51?5VN5195. +: . &95195<6\5A, /' &7+, 5#, 19&5  
 ^5 H. &, U50. &5\3: \$+#. 5<91?+, +&3, L5<1\$+, L5)/: &5?195  
 #)&, +?+, 56h\E@5/3' 5<6\5#, 19&59&] %&9&7&30#"5  
 >0%' &30#57/L5/\$#15W+#+050. &5+30&93/0+13/\$5  
 )91#)&, 0#;5/))\$+, /30#5/3' 5#0%' &30#5)/: &5?195  
 719&5+3?197/0+135/\*1%05+30&93/0+13/\$5  
 /))\$+, /0+1359&] %&9&7&30#"5

2WW4"8, ."\$%&/), (4"%)#&  
 K/3%/9L5Pi "5

=)3")Y&X\*\$8)##&  
 6. &5 /' 7+##+13#5 , 177+00&&5 , 13#+&9#5 #&W&9/\$5  
 ?/, 019#5 015 ' &0&97+3&5 &\$+: +\*+\$+0Lf5 /, /' &7+, 5  
 /, . +&W&7&30;5 #09&3: 0. 5 1?5 0. &5 %3' &9: 9/' %/0&5  
 )91: 9/7;5 /))\$+, /0+135 +3?197/0+13;5 )&9#13/\$5  
 #0/0&7&30;5! 19U5&4)&9+&3, &;5/3L5: 9/' %/0&5' &: 9&&#5  
 &/93&' ;5 710+W/0+13;5 \$&/' &9#. +)5 /3' 5 #&9W+, &"5 6. &5  
 %3' &9: 9/' %/0&5\_<A5#5! &+: . 0&' 5! +0. 510. &95, 9+0&9+5  
 +350. &5/' 7+##+13#5)91, &##"5

**3-1"#/(51,K5&/JH&B,J/J-,/#8,H&**

6. &5 H1\$\$&: &5?195 <%\*\$+, 5 C&/\$. 5 /3' 5 >1, +/\$5 K%#0+, &5  
 1??&9#5 #&W&9/\$5 ! /L#5 015 . &\$)5 ?+3/3, &5: 9/' %/0&5  
 &' %, /0+13"5h))190%3+0&#5+3, \$%' &5/5\$+7+0&' 53%7\* &95  
 1?5 7&9+0-\*/#&' 5 #, . 1\$/9#. +)#;5 : 9/' %/0&5 9&#&/9, . 5  
 /##+0/30#. +)#5/3' 5)/90-0+7&521\*#"55

9)44\$Y#: "W#&  
 D&! \$L5/, , &)0&' 5#0%' &30#5/3' 5#0%' &30#5+350. &5?+9#05  
 L&/95 1?5 /5)91: 9/75 /9&5 &\$+: +\*\$&5 015 /))\$L5?195 0. &5  
 =+W&9#+0L;5=+##&90/0+135/3' 5<9&#+&' &30+/\$5%3+W&9#+0L-  
 ?%3' &' 5 ?&\$! #. +)#"5 >0%' &30#5 7%#05 /))\$L5 015 \* &5  
 317+3/0&' 5\*L50. &5>, . 11\$51?5>1, +/\$5G19U5\*L5K/3%/9L5  
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h0. &95%3+W&9#+0L5#, . 1\$/9#. +)#50. /05' 1531059&] %&9&5  
 317+3/0+135 \*L5 /5 ' &)/907&30(#, . 11\$5 /9&5 /\$#15  
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6\*, (-, .)&2##"#. , %.#: "W#&





6. &5 /' 7+##+13#5 , 119' +3/0195 , 13#+&9#5 #&W&9/\$5  
?/, 019#5 015 ' &0&97+3&5 &\$+: +\*+\$+0Lf5 /, /' &7+, 5  
/, . +&W&7&30;5 #09&3: 0.5 1?5 0. &5 %3' &9: 9/' %/0&5  
)91: 9/7;5 /))\$+, /0+135 +3?197/0+13;5 )&9#13/\$5  
#0/0&7&30;5! 19U5&4)&9+&3, &;5/3L5: 9/' %/0&5' &: 9&&#5  
&/93&' ;5 710+W/0+13;5 \$&/' &9#. +)5 /3' 5 #&9W+, &"5 6. &5  
%3' &9: 9/' %/0&5\_<A5+#5! &+: . 0&' 5! +0. 510. &95, 9+0&9+/5  
+350. &5/' 7+##+13#5)91, &##"5

**3-1" #/(51,K5&/JH&B,J/J-,/#&8,H&**

6. &5 H1\$\$&: &5 ?195 <%\*\$+, 5 C&/0. 5 /3' 5 >1, +/\$5 K%#0+, &5  
1??&9#5 #&W&9/\$5 ! /L#5 015 . &\$)5 ?+3/3, &5 : 9/' %/0&5  
&' %, /0+13"5h)) 190%3+0&#5+3, \$%' &5/5\$+7+0&' 53%7\* &95  
1?5 7&9+0-