



E1. "" 468. \$0"+G"0\*4/. ' \*0"(' <\$ .&0. /"G\$+6"! !X"&\*\*\*1. "2\$+%\$&6S0"(' <. 2\*(+' "(' "@AAR"\*+"&"2. &K"+G"@b"0\*4/. ' \*0"+' ,9" \*J+"9. &\$0",&\*. \$L""E1. "2\$(6&\$9"(62. \*40"G+\$"\*1. ". &\$,9". ' \$+,6. ' "" J&0"\*1. "M+(' ". GG+\$\*8. \*J. . ' "57>: "&' /"\*1. ",+<&," 7=C; ">&\*. \$2(, &\$;"&' /"=. <&\*4\$\*1+02(\*&,0\*\*+" . ' <+4\$&% . ". 62,+9. . 0\*\*+"G(' (01"/. %\$. . 0\*\*1. 9"1&/"8. %4' ". &\$,(. \$('(' ",G. L"" 70\*\*1+0. "0\*4/. ' \*0"6+P. /"\*1\$+4%1"\*1. "090\*. 6\*\*1. "0\*4/. ' \*\*\* 468. \$0"8. %&' "&0\*. &/9"/. <,( ' . "4' \*(" @AAB"

E1. "#\$%&' )&\*(+' &,"- . &/ . \$01(2"2\$+%\$&6"0\*\$4%%, /"8. \*J. . ' "@AAB"&' /"@AAB"J(\*1"&"\$+\*&\*( ' %"&' /"+G\* . ' &80. ' \*\*57>: " /(\$ . <+\$", . &/ . \$01(2L""E1. "\$(%+\$&' /"&&&/ . 6(<"(' \* . %\$(\*9"+G"\*1. "2\$+%\$&6"J&0"<&, ,. /"(' \*+"c4. 0\*(+' "89". 62,+9. \$0L""E1. " 0422+\$\*G\$+6"<+664' (\*9"840(' . 00. 0"8. %&' "\*" / . <,( ' . ;"8+\*1"/4. "\*\*+\*\*1. (\$"<+' <. \$' "+P. \$\*\*1. "/. %\$. . S0"P&,4. "&' /"\*1. " / . <,( ' (% . <+' +6(<"<+' /(\*+' 0L""3. P. \$&," 62,+9. \$0\$. /4< . /"\*1. (\$"0\*4/. ' \*\*\*4(\*+' "G(' &' <(&,"0422+\$\*\*+"&/\$. 00\*\*1. (\$" +J' " / . <,( ' (% "2\$+G(\*0"

T' "@AAB;"J(\*1\$ . ' . J. /"<+66(\*6. ' \*\*\*+0\*\$+' %", . &/ . \$01(2"&' /"&"\$(%+\$+40"&<&/ . 6(<"<4\$\$(<4,46, \*\*1. \*\*\$. ' /"J&0" &8&\*. /L""7/6(00(+ ' 0"/. P. ,+2. /" ,(' K&% . 0"/(\$ . <\*,9\*\*+\*\*1. " ,+<&,"<+664' (\*9"<+, ,. % . 0\*\*+"2\$+P(/. " +' %+( ' %G. . /0\*\*+\*\*1. " #-"

P&\$9(' %0\*&% .0"+G"<+62,.. \*( ' %"% . ' . \$&," . /4<&\*(+' "\$. c4(\$ . 6 . ' \*0\*\*1&\*1&P . "/ . <,&\$ . /"&' "#- "6&M+\$"84\*\*&\$ . "<4\$\$ . ' \* ,9"  
\* . \$6 . /"2\$. N6&M+\$0L""

E1 . \$. " J&0"&"\*+\*&,"+G"! B"#-%\$&/4&\* . 0"(' \*\*1 . "@A! Xl@A! B"&<&/ . 6(<"9 . &\$!""#t\*\*1 . "Zb"4' (c4 . "6&M+\$0"/ . <,&\$ . /"(' \*\*1 . "

@L T'\*. \$2\$. \*\*+\$%&' ()&\*(+' &,"(004. 0"



700.006. ' \*6. \*1+/0(' P+,P. \*\*\*1. "<+,,, <\*(+' "+G"&\$\*(G&<\*0'. &\$,9(' '\*1. "0\*4/. ' \*S0"/. %\$. . "<+62,. \*(+' "2\$+%\$&6"&' /"  
<+62&\$(' %\*\*1. "\$. 04,\*0\*+"&\$\*(G&<\*0"<+,,, <\*. /"&\*\*\*1. ". ' /"+G\*\*1. "/. %\$. . "<+62,. \*(+' "2\$+%\$&6L""70"&"\$. 04,\*+G\*\*1. "  
0\*4/. ' \*\*&00.006. ' \*\*8. %( ' (' %"&\*\*\*1. "?4' (+\$, . P. ,;" &\$,9"\$ 04,\*0"&\$ . "+G\*. ' "1(%1. \$\*\*1&' 6(%1\*\*\*92(<&,,9"8. ". V2. <\*. /"89"  
&00.006. ' \*\*2\$+%\$&60\*\*1&\*\*\*\$&<K\*\*\$&/(\*+' &,"0\*4/. ' \*0\*G+\$\*\*1. (\$ . ' \*(\$ . "G+4\$9. &\$0(' "<+,,, % . L"

E1. "( ' 0\*\$4<+\$0(' "&,, /'. ' \*(G(. /"#- "<+4\$0. 0"H0. . "04<<. . /(' %"2&% . 01"J(,," / 0(%' "&' "&\$\*(G&<\*\*\*+"&<<4\$&\* . ,9"\$ G, . <\*\*\*1. "  
/ 0(\$ . /"6. &04\$. 6. ' \*\*+ ' \*\*1. "&00.006. ' \*\*\$48\$(<L""7//(\*+' &,,9;"' 0\*\$4<+\$0"J(,"0486("\*\*1. 0. "&\$\*(G&<\*0\*\*+"\*\*1. "  
#\$\$%&' )&\*(+' &,"- . &/ . \$01(2"= . 2&\$\*6. ' \*\*(' " . ,. <\*\$+ ' (<"G+\$6"J(\*1(' "&"J. . K"+\*\*1. "G(' &,"&00(%' 6. ' \*\*/4. "/&\*. "G+\$"  
&\$<1(P(' %,"&' &,90(0"&' /"&<<\$ . /(\*&\*(+' "24\$2+0. 0L""

7' "#- "<+66(\*\*. . "+G@NR"G&<4,\*9"6. 68. \$0"J(,"\$. P(. J\*\*1. "&\$\*(G&<\*0\*\*+ / . \* . \$6(' . \*\*1. " 468. \$" +G"0\*4/. ' \*0(' " . &<1"  
\$48\$(< "&\* . %+\$9"&' /"0486("\*\*1. "<+4' \*0\*\*+"\*\*1. "#\$\$%&' )&\*(+' &,"- . &/ . \$01(2"= . 2&\$\*6. ' \*\*J(\*1(' "Zb"/&90"+G\*\*1. ". ' /"+G"  
\*1. "2\$+<. . /(' %"0. 6. 0\* . \$L""E1. "#\$\$%&' )&\*(+' &,"- . &/ . \$01(2"= . 2&\$\*6. ' \*\*J(,"\*1. ' ' / . P. ,+2\*\*1. "2. \$<. ' \*&% . 0"&' /"  
&P. &\$% . 0"&0"/. G(' . /"+ ' \*\*1. "&00.006. ' \*\*%\$("/8. ,+J"&' /"2\$. 2&\$ . \*\*1. "&' ' 4&,\$. 2+\$\*\*G+\$\*\*1. "e' (P. \$0("9"&' /"&<<\$ . /(\*(' %"  
8+/(. 0;"\*\*+"(' <,4/. \*\*\$. ' /"2. \$G+\$6&' <. "+P. \$\*\* (6. L""

E1(0"l . &\$S0"700.006. ' \*\*

E1. "@A! XN@A! B"&00.006. ' \*\*\$. 2+\$\*\*(' <+\$2+\$&\* . 0"#- "<+1+\$\*0\*\*1&\*\*8. %&' "( ' "32\$(' %"&' /"U&,, "+G@A! d"&' /"G(' (01. /"G+4\$"  
0. 6. 0\* . \$0,"&\* . \$( ' "U&,, "@A! X"&' /"32\$(' %"@A! BL""E1. 0. \*\*J+"<+1+\$\*0"8. %&' "J(\*1"&\*\*+\*&,"+G@Z"0\*4/. ' \*0L""#G\*\*1+0. "@Z"  
0\*4/. ' \*0;"! " . G\*\*1. "&\$ . &/4. \*\*+"2&\$ . ' \*&,"<&\$ . "(004. 0;"R\*\*+, /"M+80\*\*1&\*\*\$. c4(\$ . /"1. 6\*\*+"6+P. "+4\*\*+G\*\*1. "&\$ . & ;&' /"!"

U(' &' <."&' /"

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d"

#-R! A"	"	"	"	0	"	"
#-RZA"	"	"	"	"	0	"
#-RZZ"	"	"	"	"	0	"
#-RbA"	"	"	"	"	"	"
#-RZR"	"	"	"	"	"	"
#-RAF"	"	"	"	"	"	"
#-RA! "	"	"	"	"	"	"
#-Rdb"	"	"	"	"	"	"
#-RXb"	"	"	"	"	"	"

#-RBA"

" " " " " " "



<p>0 "</p>	<p>RL U&amp;&lt;*4&amp;,"+',9" ZL 7P+(/0*6&amp;K(' %T' G. \$. ' &lt;. 0" bl -++K0**+J&amp;&amp;\$/0"+*1. \$0**+" ( ' G,4. ' &lt;. **1. (\$'/. &lt;(0(+ " " fl -+%(&lt;"" +**&amp;22&amp;\$. ' "" dl 7P+(/0\$. 02+' 0(8(/*9*G+\$" /. &lt;(0(+ "6&amp;K(' %" XL F92&amp;00. 0*2\$+8,. 6*0+,P(' %" *. &lt;1' (c4. 0" "</p>	<p>RL D+&lt;&amp;84,&amp;\$9*&lt;&lt;. 2*&amp;8,. ;" 84**0(' ,,&amp;&lt;K0'&lt;\$( '&lt;&amp;," *1(' K(' %P+&lt;&amp;84,&amp;\$9" ZL e' &lt;+6G+\$*&amp;8,. "( ' G. \$\$(' %" G\$+6*G&lt;*0" bl T' &lt;+ ' 0(0* . ' *,9*8(80. /" fl -++K0*G+\$*+*1. \$0\$" &lt;+ ' G(\$6&amp;*(+ ' " dl e0. 0*2\$+8,. 6*0+,P(' %" *. &lt;1' (c4. 0(' ",(6(*. /"J&amp;90" XL e' 04\$. "1+J**+&amp;' &amp;,9). " /&amp;*&amp;"+6&amp;K. "/. &lt;(0(+ ' 0" BL -+**&lt;+ ' &lt;. 2*4&amp;," bl 3&lt;+\$. "8. ,+J"@f[FA'+ ' ""#-" 700. 006. ' *** fl =. 6+ ' 0*\$&amp;*. "G&amp;6(/(&amp;\$(*9" J(*1*8&amp;0(&lt;+"\$%&amp;' )&amp;*(+ ' &amp;," 0*\$4&lt;*4\$. 0;"&lt;+ ' &lt;. 2*0*&amp;' /" *. \$60" RL \&amp;0'(*, . " +\$** +" 4' / . \$0*&amp;' /(' %"+G*P&amp;\$(&amp;8. . 0" ( ' P+,P(' %(' /P(/4&amp;,0;" %\$+420*&amp;' /**1. "J 1+, . " +&amp;\$%&amp;' )&amp;*(+ ' " ZL \&amp;0'(*, . " +\$** + "G&amp;6(/(&amp;\$(*9" J(*1+"\$%&amp;' )&amp;*(+ ' &amp;,"&lt;1&amp;' % . " (004. 0"</p>	<p>RL 3. . K0"/. . 2. \$" 4' / . \$0*&amp;' /(' %"+G*0(*4&amp;*(+ ' " ZL _ . 4*\$&amp;,"0*&amp;' (' %&amp;,". \$' &amp;*(P. " P(. J2+( ' *0J(*1+4**8(&amp;0" bl -. &amp;/0"+*1. \$0*( ' **1(' K(' %" &amp;' /"/. &lt;(0(+ ' 0" fl e*(. ) . 0*2\$+8,. 6*0+,P(' %" *. &lt;1' (c4. 0**&lt;+ ' 0(0* . ' *,9" dl &gt;+ ' &lt;. 2*4&amp;,"&amp;' &amp;,90(0" "</p>
<p>V' 32*4. , ' 3\$' +0) *+, ' \$-, .\$/ ' 40T0 G5, ' +20 0 "</p>	<p>!L 3&lt;+\$. "8. ,+J"@f[FA'+ ' ""#-" 700. 006. ' *** @L =. 6+ ' 0*\$&amp;*. "G&amp;6(/(&amp;\$(*9" J(*1*8&amp;0(&lt;+"\$%&amp;' )&amp;*(+ ' &amp;," 0*\$4&lt;*4\$. 0;"&lt;+ ' &lt;. 2*0*&amp;' /" *. \$60" RL \&amp;0'(*, . " +\$** +" 4' / . \$0*&amp;' /(' %"+G*P&amp;\$(&amp;8. . 0" ( ' P+,P(' %(' /P(/4&amp;,0;" %\$+420*&amp;' /**1. "J 1+, . " +&amp;\$%&amp;' )&amp;*(+ ' " ZL \&amp;0'(*, . " +\$** + "G&amp;6(/(&amp;\$(*9" J(*1+"\$%&amp;' )&amp;*(+ ' &amp;,"&lt;1&amp;' % . " (004. 0"</p>	<p>bl 3&lt;+\$. "8. ,+J"@f[FA'+ ' ""#-" 700. 006. ' *** fl =. 6+ ' 0*\$&amp;*. 0" 4' / . \$0*&amp;' /(' %"+G" +&amp;\$%&amp;' )&amp;*(+ ' &amp;,"0*\$4&lt;*4\$. 0;" &lt;+ ' &lt;. 2*0*&amp;' /** . \$60*&amp;0*( " \$. ,&amp;*. 0**+J ' " +&amp;\$%&amp;' )&amp;*(+ ' " dl 10*&amp;8, . **+"&amp;22,9**1. (\$"</p>	

Zl 10^8 << . 2 \* ( ' % + 6 ^ 2 . + 2 , . " J ( \* 1 " / ( P . \$ 0 . " 8 & < K % \$ + 4 ' / 0 ' & ' / " + 2 ( ' ( + ' 0 ' & ' / 0 . . K 0 ^ \* + " < \$ . & \* . " & ' ( ' < , 4 0 ( P . " . ' P ( \$ + ' 6 . ' \* " b1 \ & 0 ' & ' " 4 ' / . \$ 0 ' & ' / ( ' % \* \* 1 & \* \* + ' . \$ 0 + J ' ' . V 2 . \$ ( ' < . 0 " ( 6 2 & < \* \* ( ' \* . \$ & < ( + ' 0 " J ( \* 1 " + \* 1 . \$ 0 "

#P. \$&,,,\*1. "#-2\$+%\$&6"<+' 4. 0"\*+"8. "&"14%. "04<<. 00L""E1. "G&<4,\*9"1&0"J+\$K. /"1&\$/"\*+"\$. P(0. "\*1. (\$"<+4\$0. 0"\*+" 6. . \*\*\*1. "2\$+%\$&6"%+&,0L"U+\$\*\*1. "2&0"\*0. P. \$&,"&<&/ . 6(<"9. &\$0"\*1. "G&<4,\*9"G. . ,\*\*1. "<+4\$0. 0"&\$ . "8+\*1"\*&4%1\*\*&' /" \$ . <. (P. /"&0"/. 0(\$ . /"\*+"6&V(60). \*\*1. "&\*\*&(' 6. ' \*"+G"+4\$ ,. &\$' (' %"+&,0L""70"&\$. 04,\*,\*1. \$. "1&0"8. . ' "6+\$ . . 621&0(0" (' \*1. ",&0\*G. J"9. &\$0"+' "&/'/' %" . ,. <\*(P. "&' /"02. <(&,"\* +2(<"<+4\$0. 0"\*+"\*1. "#-" +GG. \$(' %0L""E1. "Q,+8&,-. &/ . \$01(2"<+4\$0. " 1&0"2\$+P. ' "&"%\$. &\*04<<. 00" +\*\*+' ,9"/4. "\*\*+"<+' \* . ' \*;,"84\*\*&,0+"/4. "\*\*+"/\*0&\*(069(' %"0\*4/. ' \*S0T\_RbA"\$ . c4(\$ . 6. ' \*L""7" 5. \$02. <\*(P. 0(' "-. &/ . \$01(2"<+4\$0. "(0" +J"+GG. \$. /"\*+"&,,+J"0\*4/. ' \*0"\*+" . V2,+\$. "&0(' %,. . ,. &/ . \$(' "/. 2\*1L""7" - . &/ . \$01(2"&' /"5+24,&\$">4,\*4\$. "<+4\$0. "1&0"&\*\*\$&< . /"&"%\$. &\*"/. &,"+G"(' \* . \$ . 0\*"G\$+6"0\*4/. ' \*0"+G"&,"&% . 0"&<+\$+00" <&6240L""F+\*1\*\*1. ",&\*\* . \$"<+4\$0. "6&9"<+4' \*\*&0"&"0\*4/. ' \*S0T\_@b! "\$ . c4(\$ . 6. ' \*L""E1. "+' ,9"<+4\$0. "\*\*1&\*"<+' \*(' 4. 0"\*+" /\$&J",(\*, . "( \* . \$ . 0\*\*"(' "C(' /G4,-. &/ . \$01(2L""n. \$+"0\*4/. ' \*S0" . ' \$+,,. / ,&0\*\*9. &\$0+("1&0"8. . ' "24,,. /"G\$+6"64\*4\$. " +GG. \$(' %0L"

a(\*1(' "I. &\$"3<+\$. 0"

$$\frac{1.8 \times 10^3 + 1.8 \times 10^3}{3 \times 10^3}$$

$$= \frac{3.6 \times 10^3}{3 \times 10^3} = 1.2$$



@I E1. "=+4%"&' /"=(&' . "#8. \$1. ,6&' ">. ' \*.\$"G+\$"- . &/ . \$01(2"5. \$G+\$6&' <. "J&0"&%&(' "%(P. ' "\$. /4<. /"2\$(\$("9"89"  
6&' &%. 6. ' \*L""E1(0"\$\$. ' /"J(,,"<+' \*( ' 4. "G+\$"\*1. "G+\$ . 0. . &8, . "G4\*4\$. L""T"/+. 0"+GG. "\$%\$. &\*" +22+\$\*4' (\*9"G+\$"  
<+,,&8+\$&\*(+' "0+6. /&9L""  
RI :0\*&8,(01"" . J"/(\$.<\*(+' H01"G+\$"#-'(' "0422+\$"+G". GG+\$\*0(' ("\*0" . J"1+6. ;"\*1. "E&8+\$"3<1++,"+G"F40(' . 00L"  
ZI -++K"G+\$"J&90"\*+"(' <\$ . &0. " . '\$+,,6. ' \*\*8. G+\$ . \*\*1. "#-"2\$+%&6"(0" +",+' % . \$"040\*&(' &8, . L"