! "#\$%&'#()*+,* - +.+&/0+*1+2.0%&* 3%4/&(5%"(*+,*67+"+5#7'*

!

"#\$\kk! ' #() *!+), -*)! .#()*k/), -*) 0 /\$1\$#), \$&-,2! @787A!69>BC98D! E - .5(F-0!+)*H)5! IFFJ56KK/)*H)5k/\$1\$#), \$&-,2K! ! MR!#-5\$2#/-!@5I)#-,!S(FI!6D6DA6! T)2#-*!;/I-/IF-#! T)2#-*k;/I-/IF-#0/\$1\$#), \$&-,2! L\%(/-!: \$2#56!N!?B7U!MKMI!9678B ??688!RNU!.P!)JJ\$(*F4 -*F! 3/\$*\$4(/5!68?! !

3/\$*\$4(/5!6789! :\$*\$#5!;-4(*)#<!=)1!!>8?9! L\%(/-!:\$2#56!M!?688B7688!"N! 3/\$*\$4(/5!>8DO! LFI-#!F(4-5!.P!)JJ\$(*F4-*F!@(25F!5-*,!)*!-B4)(1A! !

* - +2&'%*3%'7(#+''*

$$\begin{split} & MI(5!(5!FI-!\%(\#5F!/\$2\#5-!(*!))!FS\$B/\$2\#5-!5-V2-*/-!, -5(W*-, !F\$!\$\%-\#!52JJ\$\#F!)*, !5F\#2/F2\#-!F\$! \\ & 5F2, -*F5!S\#(F(*W!I\$*\$\#5!FI-5-5!(*!3/\$*\$4(/5\&!X*!\$\#, -\#!F\$!/\$4J-F-!FI(5!/\$2\#5-!52//-55\%211P!)*, !F\$! \\ & .-!\#-), P!F\$!/\$*F(*2-!S\$\#Y!(*!FI-!5J\#(*W<!5F2, -*F5!425F!S\#(F-!)!\#-5-)\#/I!J\#\$J\$5)!\&!MI(5!J\#\$J\$5)!! \\ & S(11!/\$*5(5F!\$\%!421F(J1-!J)\#F56!) \end{split}$$

?& O#)%F!(*F#\$,2/F(\$*!Z!

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-+2&'%*:/(%&#/.'*

$$\begin{split} \mathbf{MI} &= \frac{1}{5!*} = \frac{1}{5!} + \frac{1}{5!} + \frac{1}{5!} = \frac{1}{5!} + \frac{1}{5!} + \frac{1}{5!} = \frac{1}{5!} + \frac{1}{5!}$$

 $N \$5F!5F2, -*F5!S #(F-!)*! - 4 J(#(/)1!FI - 5(5(!)*, !(F!(5!/\$4 4 \$*!F\$!25-!; MRMR!\$\$!,)F)!)*) 1P5(5\&!; F2, -*F5!S I\$!S(51!F\$!J2#/I)5-!FI - (#!\$S*!/\$JP!\$\&!; MRMR!V2)1(\$P!\$\$!!)!52.5F)*F()1!, (5/$2*F!FI + $2WI!FI - !^*(H-#5(FP_5!<u>*</u>), "1)*&!N$#-!(*\$#4)F($*!(5!)H)(1).1-!FI#$2WI!)!(*Y!J$5F-, !$*!FI-!+)*H)5!S - .5(F-&!X!#-/$4 4 -*, !;F)F)KX+&!"#(/-5!)#-!aD9!\$#!)!$*-BP-)#!1(/-*5-<!)*, !a?9D!\$#!)!J-#J-F2)1!1(/-*5-&!!!$

!

; %92#&% 5 %''('*/''0*<&/0#''=*

>#''/.*<&/0%?!MI-!J#(4)#P!, -F-#4(*)*F!\$%!P\$2#!W#), -!(*!FI(5!/\$2#5-!S(11!.-!FI-!V2)1(FP!\$%!FI-! J#\$J\$5)1!52.4(FF-,!)F!FI-!-*, !\$%!FI-!5-4-5F-#&!X!S(11!-H)12)F-!FI-!J#\$J\$5)15!FI#--!/#(F-#()G!I\$S! S-11!FI-P!)#F(/21)F-!)!/1-)#!#-5-)#/I!V2-5F(\$*<!I\$S!S-11!FI-P!-]J1)(*!FI-!-]J-/F-,!/\$*F#(.2F(\$*!F\$! FI-!1(F-#)F2#-<!)*, !SI-FI-#!FI-!J#\$J\$5-, !4-FI\$, \$1\$WP!@)*,!,)F)!(%!)JJ1(/).1-A!)#-!)JJ#\$J#()F-!F\$!)*5S-#!FI-!V2-5F(\$*&!X!H(-S!FI-!\$FI-#!/\$2#5-!)55(W*4-*F5<!(*/12,(*W!J--#!-,(F(*W!)*,! J)#F(/(J)F(*W!(*!J#-5-*F)F(\$*5!)5!.\$FI!J#-5-*F-#!)*,!)2,(-*/-!4-4.-#<!J#(4)#(1P!)5!(*J2F5!(*F\$!FI-! %(*)1!,\$/24-*F&!X!S(11<!I\$S-H-#<!/\$*5(,-#!FI-5-!(*J2F5!SI-*!)55(W*(*W!P\$2#!%(*)1!W#),-<! -5J-/()11P!(%!FI-(#!V2)1(FP!(5!*\$F(/-).1P!I(WI-#!\$#!!\$S-#!FI)*!FI-!%(*)1!J#\$J\$5)1_5&!

Y(B%&* - +2&'%*G'',+& 5 / (#+''*/''0*8+.#7#%'*

 $\begin{array}{l} \texttt{G55} \#=\&/(\#+''*'(/(2'?*FI-!S-.J)W-!\underline{SS8}/\$1\$\#), \$\&-, 2\&2*, \$/24-*F-, !/\$*F)(*5!(*\$\$#4)F(\$*!\\ \#-W)\#, (*W!/) 4 J25!\#-5\$2\#/-5!)H)(1).1-!\%\$!5F2, -*F5!)*, !- 4 J1\$P--5!S(FI!OR+R!5F)F25\&!b\$2!5I\$21, !\\ \texttt{15\$!}\%-1!\%\#--!F\$!, (5/255!P\$2\#!5F)F25!)*, !)*P!\#-1)F-, !(552-5!S(FI!'' \#\$\&!+), -*)\&!X!S(11!, \$!4P!.-5F!F\$!] J1\$H(, -!)JJ\#\$J\#()F-!)//\$44\$,)F(\$*!\$\#!/\$**-/F!P\$2!F\$!FI-!4\$5F!)JJ#\$J#()F-!\$*B/) 4 J25!\\ \#-5\$2\#/-5\&! \end{array}$

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$$\begin{split} & \text{MI-!}\mathbf{Y}, \#7\% + *Z \#7(\#5*F''\#'(/''7\%^{\circ}\mathbb{L} \setminus \text{RA!}J\#SH(,-5!\%\#--!)*,!/S*\%(,-*F()1!(*\%S\#4)F(S*<!/km/2), *S(S*<!/km/2), *S(S* *S(S*$$

*

Y(B%&* ! ''#\$%& '#()*8+.#7#%'?*

3#'/[#.#()*F77+55+0/(#+''*

$$\begin{split} & \text{X}_{P} = \frac{1}{1 - 1} \\ & \text{X}_{P} = \frac{1$$

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-./''&++5*1%B/\$#+&*

*

 $\begin{array}{l} ;F2,-*F5!)*,!\%)/2!FP!-)/I!I)H-!#-5J$*5(.(1(FP!%$#!4)(*F)(*(*W!)*!)JJ#$J#()F-!!-)#*(*W! -*H(#$*4-*F&!MI$5-!SI$!%)(1!F$!),I-#-!F$!52/I!.-I)H($#)!!5F)*,)#,5!4)P!.-!52.Q-/F!F$!,(5/(J1(*-&!"*$%-55($*)!!/$2#F-5P!)*,!5-*5(F(H(FP!)#-!-5J-/()11P!(4J$#F)*F!S(FI!#-5J-/F!F$!(*,(H(,2)15!)*,!F$J(/5!,-)1(*W!S(FI!#)/-<!/1#$<!*)F($*)!!$#(W(*<!5-]<!J#-W*)*/P<!)W-<!,(5).(1(FP<!/#--,<!#-1(W($*<!5-]2)!!$#(-*F)F($*<!W-*,-#!(,-*F(FP<!W-*,-#!-]J#-55($*<!H-F-#)*!5F)F25<!J$1(F(/)1!)%%(1()F($*!$#!J$1(F(/)1!)%%(1()F($*!$#!J$1(F(/)1!)%%(1()F($*!$#!J$1(F(/)1!)%%(1()F($*!$#!J$1(F(/)1!)JI(1$5$JIP&!!+1)55!#$5F-#5!)#-!J#$H(,-,!F$!FI-!(*5F#2/F$#!S(FI!FI-!5F2,-*Fg5!I-W)1!*)4-&!X!S(11!W1),1P!I$*$#!P$2#!#-V2-5F!F$!),#-55!P$2!.P!)*!)IF-#*)F-!*)4-!$#!W-*,-#!J#$*$2*&!"1-)5-!),H(5-!4-!$%!FI(5!J#-%-#-'-!-)#1P!(*!FI-!5-4-5F-#!5$!FI)F!X!4)P!4)Y-!)JJ#$J#()F-!/I)*W-5!F$!4P!#-/$#,5&!!=$#!4$#-!(*%$#4)F($*<!5--!FI-!J$1(/(-5!$*!/1)55#$$4!.-I)H($#!)*,!FI-!;F2,-*F!+$,-!$%!!+$*,2/F&!!$

1

@+''+&* - +0%*

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 $\begin{array}{l} R11!5F2, -*F5!-*\#\$11-, !(*!)!^*(H-\#5(FP!\$\$!+\$1\$\#), \$! '\$21, -\#!/\$2\#5-!)\#-!\#-5J\$*5(.1-!\%\$\#!Y*\$S(*W!)) \\ *, !), I-\#(*W!F\$!FI-!: \$*\$\#!+\$, -\&! \setminus (\$1)F(\$*5!\$\%!FI-!J\$1(/P!4)P!(*/12, -G!J1)W()\#(54<!/I-)F(*W<!)) \\ *, !), I-\#(*W!F\$!FI-!: \$*\$\#!+\$, -\&! \setminus (\$1)F(\$*5!\$\%!FI-!J\$1(/P!4)P!(*/12, -G!J1)W()\#(54<!/I-)F(*W<!)) \\ *, !), I-\#(*W!F\$!FI-!: \$*\$\#!+\$, -\&! \setminus (\$1)F(\$*5!\$\%!FI-!J\$1(/P!4)P!(*/12, -G!J1)W()\#(54<!/I-)F(*W<!)) \\ *, !), I-\#(*W!F\$!FI-!) \\ *, !) \\ *, !), I-\#(*W!F\$!FI-!) \\ *, !) \\$

 $\begin{array}{l} .-!\#-J\$\#F-, !F\$!FI-!: \$*\$\#!+\$, -!@\underline{I}\$*\$\# 0 /\$I\$\#), \$\&-, 2AU!787B69>Beee8A\&!; F2, -*F5!SI\$!)\#-!\$$2*, !\\ \#-5J\$*5(.1-!\$\$\#!H(\$1)F(*W!FI-!)/), -4(/!(*F-W\#(FP!J\$1(/P!S(11!.-!52.Q-/F!F\$!*\$*)/), -4(/!5)*/F(\$*5!)), .-4(/!5)*/F(\$*5!), .-1)$$

!

J%L2/.*: #'7+''027(*3#'7#''/(#+''*@/&/''5%''(*/''0H+&*;%./(%0*;%(/.#/(#+''* !

$$\begin{split} \text{MI-!}^*(\text{H-#5(FP!\$\$!+\$1\$\#),\$!'\$21,-\#!@+^!'\$21,-\#A!(5!/\$44(\text{FF-},!F\$!\$\$5F-#(*W!)!J\$5(F(\text{H-!})*,!\\ \text{S-1/$4(*W!1-)}\#(*W<!S\$\#Y(*W<!)*,!!(\text{H}(*W!-*\text{H}(\#\$4-*F\&!+^!'\$21,-\#!S(11!*\$F!F\$1-\#)F-!)/F5!\$\&!\\ \text{S-1/$4(*W!1-)}\#(*W<!S\$\#Y(*W<!)*,!!(\text{H}(*W!-*\text{H}(\#\$4-*F\&!+^!'\$21,-\#!S(11!*\$F!F\$1-\#)F-!)/F5!\$\&!\\ \text{S-1/$4(*W!1-)}\#(*W<!S\$\#Y(*W<!)*,!!(\text{H}(*W!-*\text{H}(\#\$4-*F\&!+^!'\$21,-\#!S(11!*\$F!F\$1-\#)F-!)/F5!\$\&!\\ \text{S-1/$4(*W!1-)}\#(*W<!S\$\#Y(*W<!)*,!!(\text{H}(*W!-*\text{H}(\#\$4-*F\&!+^!')*21,-\#!S(11!*\$F!F\$1-\#)F-!)/F5!\$\&!\\ \text{S-1/$4(*W!1-)}\#(*W<!, (5/#(4(*)F(\$*<!)*,1]))) \\ \text{S-1/$4(*W!1-)}\#(*W!*!, \$4-5F(/!)) \\ \text{H}(\$1-*/-<!)*, !5F)1Y(*WA<!, (5/#(4(*)F(\$*<!)*,1]))) \\ \text{S-1/$4(*W!1-)} \\ \text{H}(\$1-*/-<!)*, !5F)1Y(*WA<!, (5/#(4(*)F(\$*<!)*,1]))) \\ \text{S-1/$4(*W!+1, 1]) \\ \text{S-1/$5(*, 2/F!)} \\ \text{H}(*W!*1, 1]) \\ \text{S-1/$5(*, 2/F!)} \\ \text{S-1/$5(*, 2/F!)} \\ \text{S-1/$5(*, 2/F!)] \\ \text{S-1/$5(*, 2/F!)} \\ \text{S-1/$5(*, 2/F!)] \\ \text{S-1/$5(*, 2/F!)} \\ \text{S-1/$5(*, 2/F!)} \\ \text{S-1/$5(*, 2/F!)] \\ \text{S-1/$5(*, 2/F!)} \\ \text{S-1/$5(*, 2/F!)} \\ \text{S-1/$5(*, 2/F!)} \\ \text{S-1/$5(*, 2/F!)] \\ \text{S-1/$5(*, 2/F!)} \\ \$$

 $\frac{1}{1-5-!Y^*S!FI} \frac{1}{2!FP!} + \frac{1}{5!F^{2}/F^{2}} \frac{1}{1} H-!}{1-5J} + \frac{5}{3} + \frac{5}{3} \frac{1}{1} H-!}{1-5J} + \frac{1}{3} H-!}{1-5J} + \frac{1}{3} H-!}{1-5J} + \frac{1}{3} H-!} + \frac{1}{3} H-!}{1-5J} + \frac{1}$

; %.#=#+2'*Y['%&\$/''7%'*

+) 4 J25!J\$l(/P!#-W)#, (*W!#-1(W(\$25!\$.5-#H)*/-5!#-V2(#-5!FI)F!%)/21FP!4)Y-!-H-#P!-%%\$#F!F\$!, -)1! #-)5\$*).1P!)*,!%)(#1P!S(FI!)11!5F2, -*F5!SI\$<!.-/)25-!\$%!#-1(W(\$25!\$.1(W)F(\$*5<!I)H-!/\$*%1(/F5!S(FI!5'I)F1, 21-, 1-]) 45<!)55(W*4-*F5!\$#!#-V2(#-,!)FF-*,)*/- δ !X*!FI(5!/\$2#5-<!J1-)5-!(*%\$#4!4-!*\$!1)F-#! FI)*!FS\$!S--Y5!J#(\$#!F\$!)*P!/\$*%1(/F!P\$2!%\$#-5--<!5\$\$*-#!(%!J\$55(.1-<!5\$!FI)F!S-!4)P!%(*,!)*!)1F-#*)F(H-!)##)*W-4-*F!%\$#!P\$2!F\$!/\$4J1-F-!FI-!#-V2(#-4-*F5!\$%!FI-!/\$2#5- δ !; --!/)4J25!J\$1(/P! #-W)#, (*W!#-1(W(\$25!\$.5-#H)*/-5]!%\$#!%21!!, -F)(15\&!

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