- G5 Z.O!M,**!2%%!(![6(J!"!6,T,+(*!>88%22\!84(\$T%!.'!J.O\$!+O,+,.'!('H!Q%%!I,**!Q.\$:!!CDDEFG! HI16)&1!%->JE!
- E5 Z.O!4(/%!+4%!.K+,.'!+.!.K+!.O+!IJ!O2,'T!(!*,'-!,'!(!\$%&,'H%\$!%&(,*!J.O!M,**!\$%8%,/%!M,+4!+4%!20I`%8+![6(J!"!6,T,+(*!>88%22\5!**K**)'!0'\$%!);%!)'%!#)!,-%1&!%L-#!M-#'-&?!NO!"3!.+4%\$M,2%!J.O!M,**!I%!84(\$T%H!Q.\$!+4%!+%R+I...-5!

P\$.OI*%24..+, 'T!20KK.\$+!,2!(/(,*(I*%!GabW!+4\$.OT4!c,+(*7.0\$8%5!

! G!

=.\$!G9GG3!BUP!M,**!8.'+,'0%!+.!8./%\$!+4%!8.2+!.0!&.I,*%!,A*,8-%\$25!>!K..*!.0!K4J2,8(*!8*,8-%\$2!,2

! E!

```
+%(&&(+%2!24.0*H!(KK%($!.'!+4%!20I&,22,.'5!=$%%!$,H,'T!24.0*H!'.+!4(KK%'5!!)*%(2%!8.'+(8+!&%!
>7>)!,0!('J!,220%2!($,2%!M,+4,'!J.0$!+%(&5!!
>+!+4%!%'H!.0!+4%!2%&%2+%$3!J.0$!8.'+$,IO+,.'!+.!+4%!+%(&M.$-!M,**!I%!20I`%8+!+.!8.'0,H%'+,(*!K%%$!
%/(*O(+, . '5!!Z.O$!4.&%M.$-!28.$%!M.**!I%!M%,T4%H!IJ!J.O$!+%(&&(+%2i!%/(*O(+, . '25!
8#29)69+L-; 18!<&-(1!<&)I,10*!
U!M,**!K.2+!('2M%$2!+.!+4%!.HH0'O&I%$!%'H0.Q084(K+%$!K$.I*%&2!,'!+4%!+%R+I..-5!!Z.O!($%!
%RK%8+%H!+.!M.$-!+4$.OT4!+4%2%!K$.I*%&2!+.!%'2O$%!&(2+%$J!.0!+4%!&(+%$,(*5!!P$J!+.!H.!+4%!
K$. I*%&2!M,+4.O+!*...-, 'T!(+!+4%!('2M%$2!$,T4+!(M(J5!!U!M,**!'.+!8.**%8+!J.O$!M.$-!.'!+4%2%!
K$.I*%&25!!P4%2%!($%!T..H!K$(8+,8%!K$.I*%&2!Q.$!+4%!%R(&2!2.!J.O!($%!(H/,2%H!+.!M.$-!.'!+4.2%!
K$. I*%&25!!
B\%1#2-#(1!-#2!/#9(,-$$!;-&\%/(/;-\%/)#*!
Z. O$!$%2K. '2%2!+.!+4%!,A*,8-%$!SO%2+,. '2!, '!*%8+O$%3!$\T($H*\%22!.0!M4\%+4\%$!J. O$!('2M\\$!,2!8.\$\%8+!
.$!'.+3!M,**!8.0'+!+.M($H2!J.0$!(++%'H('8%!('H!K($+,8,K(+,.'!28.$%!0.$!+4(+!H(J5!!
Z.0!($\%!(**.M\%H!+.!\&,22!+M.!8*(22\%2!0.\$!M4(+\%/\\$!\$\(2.\'2!k\%R802\%H!('H!O'\%R802\%H15!!\@(84!
(HH,+,.'(*!(I2%'8%!M,**!$%HO8%!J.O$!(++%'H('8%!('H!K($+,8,K(+,.'!28.$%5!UQ!J.O!&,22!&.$%!+4('!
G9 i !. 0!8*(22%2!kD!8*(22%21!J. 0!M,**!$%8%,/%!(++%'H('8%!('H!K($+,8,K(+,.'!28.$%!.0!m%$.!0.$!+4,2!
8. O$2%5!!P4%2%!(I2%'8%2!, '8*OH%!I.+4!/(*,H!k2,8-'%223!M%(+4%$3!%&%$T%'8,%21!('H!,'/(*,H!$%(2.'2!
0.$!'.+!I%,'T!,'!8*(225!
Z.0$!K($+,8,K(+,.'!,'!8*(22!H,28022,.'2!,2!%22%'+,(*!0.$!%'4('8,'T!J.0$!('H!J.0$!8*(22&(+%2j!
*%($','T!%RK%$,%'8%!,'!+4,2!8*(225!!Z.O$!K($+,8,K(+,.'!,2!(!84('8%!0.$!J.O!+.!+4,'-!8$,+,8(**J3!(KK*J!
*%($'%H!8.'8%K+2!('H!O2%!+4%!*%($'%H!+%$&,'.*.TJ5!!; (-,'T!&,2+(-%2!,2!K($+!.0!*%($','T5!!7.3!
H. 'j+!I%!24J3!K($+,8,K(+%!, '!8*(22!H,28022, . '2!( 'H!T%+!& . $%! . 0+! . 0!+4,2!8*(22e!!!
> *2.3!, 0! J. O! 4 (/\%! (!SO\%2+, ...'!HO\$, 'T! *\%8+O\$\%3! 0\%\%*! 0\$\%! + ..!, '+\%\$\$OK+! \&\%5! P4 (+!M.'j+!I.+4\%\$! \&\%5!! + ...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...') + (1.5\%\%2+...')
+) 0 0 ' #/(-\%) #*!
M(J!+.!8.'+(8+!&%!,2!+.!2%%!&%!,'!.00,8%!4.0$25!!Z.0!8('!(*2.!%&(,*!&%!M,+4!24.$+!S0%2+,.'25!!!!!
M,**!+$J!+.!$%2K.'H!+.!J.O$!%&(,*2!K$.&K+*J!HO$,'T!IO2,'%22!4.O$25!!)*%(2%!,'8*OH%!@ABC!aX"X!,'!
+4%!20I`%8+!*, '%5!!!
 . 1#%-%/S1!+) '&$1!5 '%,/#1!!
         "5 P4%!7,&K*%!V%T$%22,..'!; .H%*!kA4(K+%$!G1!
         G5 ; 0^{+}, K^{*}, V^{*}, V^{*}
         E5 ; O*+,K*%!V%T$%22,.'!>'(*J2,2:!U'0%$%'8%!kA4(K+%$!a1!
         a5 ; O*+,K*%!V%T$%22,..'!>'(*J2,2:!Bh7!>2J&K+.+,82!kA4(K+%$!F1!
         F5 : O*+,K*%!V%T$%22...'!> '(*J2.2:!=O$+4%$!U22O%2!kA4(K+%$!d1!
         d5 \quad ; 0*+, K*\%!V\%T\$\%22, . \, '!>'(*J2,2!M,+4!\,n\,0(*,+(+,/\%!U'\,0\,.\,\$\&(+,\,.\,':!^{\wedge},\,'(\$J!\,c\,(\$,(\,I*\%2!\,)))))
                  kA4(K+%$!W1
```

a!

!

```
D5 >HH,+,. '(*!; O*+,K*%!V%T$%22,. '!> '(*J2,2!U22O%25!
T#/S1&$/%?!<),/(/1$!
!"#$$%&& '()*+#,-&%(
^.+4!2+OH%'+2!('H!0(80*+J!($%!$%2K.'2,I*%!0.$!&(,'+(,','T!('!(KK$.K$,(+%!*%($','T!\%'/,$.'&\%'+!,'!
(**!, '2+$08+, . '(*!2%++, 'T23!M4%+4%$!, '!K%$2. '3!$%&.+%!.$!. '*, '%5!P4.2%!M4.!Q(,*!+.!(H4%$%!+.!2084!
I%4(/...$(*!2+( 'H($H2!&(J!I%!20I`%8+!+.!H,28.K*, '%5!) $.0%22,..'(*!8.0$+%2J!( 'H!2%'2.+,/,+J!($%!
%2K%8,(**J!,&K.$+('+!M,+4!$%2K%8+!+.!,'H,/,HO(*2!('H!+.K,82!H%(*,'T!M,+4!$(8%3!8.*.$3!'(+,.'(*!
.$,T,'3!2%R3!K$%T'('8J3!(T%3!H,2(I,*,+J3!8$%%H3!$%*,T,.'3!2%RO(*!.$,%'+(+,.'3!T%'H%$!,H%'+,+J3!T%'H%$!
%RK$%22,.'3!/%+%$('!2+(+O23!K.*,+,8(*!(00,*,(+,.'!.$!K.*,+,8(*!K4,*.2.K4J5!!=.$!&.$%!,'0.$&(+,.'3!2%%!
+4%!K.*,8,%2!.'!8*(22$..&!I%4(/,.$!('H!+4%!7+OH%'+!A.'HO8+!o!A.'0*,8+!V%2.*O+,.'!K.*,8,%25!
. */0-%* ' *12$(3&%(! 456789:(
>2!(!&(++%$!.0!KOI*,8!4%(*+4!('H!2(0%+J3!(**!&%&I%$2!.0!+4%!A]!^.O*H%$!8.&&O',+J!('H!(**!
/,2,+.$2!+.!8(&KO2!&O2+!0.**.M!O',/%$2,+J3!H%K($+&%'+!('H!IO,*H,'T!$%SO,$%&%'+2!('H!(**!KOI*,8!
4%(*+4!.$H%$2!, '!K*(8%!+.!$%HO8%!+4%!$,2-!.Q!2K$%(H, 'T!, 'Q%8+,.O2!H,2%(2%5!7+OH%'+2!M4.!Q(,*!+.!
(H4%$%!+.!+4%2%!$%SO.$%&%'+2!M,**!I%!(2-%H!+.!*%(/%!8*(223!('H!2+OH%'+2!M4.!H.!'.+!*%(/%!8*(22!
M4%'!(2-%H!.$!M4.!$%002%!+.!8.&K*J!M,+4!+4%2%!$%S0,$%&%'+2!M,**!I%!$%0%$$\H!+.!7+\OH\'+!A.'\H08+
('H!A.'0*,8+!V%2.*O+,.'5!=.$!&.$%!,'Q.$&(+,.'3!2%%!+4%!K.*,8J!.'!8*(22$..&!I%4(/,.$!('H!
+4%!7+OH%'+!A.H%!.0!A.'H08+5!U0!J.0!$%S0,$%!(88.&&.H(+,.'!I%8(02%!(!H,2(I,*,+J!K$%/%'+2!J.0!
0$. &!00*0,**, 'T!+4%2%!2(0%+J!&%(20$%23!K*%(2%!0.**.M!+4%!2+%K2!, '!+4%![>88.&&.H(+,.'!0.$!
6,2(I,*,+,%2\!2+(+%&%'+!.'!+4,2!2J**(IO25!
A 1!^.0*H%$!80$$%'+*J!$%$0.$%2!&(2-2!.'!8*(22$...&2!('H!*(I.$(+.$.%2!$\T(\$H*\%22!.0!/(88,'(+...'!
2+(+025!P4,2!$\%SO,$\%&\%'+!,2!(!K$\%8(O+,.'!+.!20KK*\\&\%'+!A]!^\.O*H\\$j2!ABcU60"D!/(88,'\%!
M%**!(2!+4.2%!M4.!($%!4%($, 'T0,&K(,$%H!.$!.+4%$M,2%!H,2(I*%H!.$!M4.!($%!8.&&O',8(+,'T!M,+4!
2.&%.'%!M4.!,2!4%($,'T0,&K(.$\H!.$!.+4\$M,2\\!H,2(I*\H!('H\!M4\\$\\!+4\\!(I,*,+J\!+.\!2\\\!+4\\!&.O+4\!,2\!
%22%'+,(*!+.!8.&&O',8(+,.'5!U0!J.O!SO(*,0J!0.$!(!&(2-0$%*(+%H!(88.&&.H(+,.'3!K*%(2%!0.**.M!+4%!
2+\%K2!, !+4\%![>88.&&.H(+,.'!0.$!6,2(I,*,+,\%2\!2+(+\%\%\%'+!.'!+4,2!2J**(IO25!U'!(HH,+,.'3!/(88,'(+\%H!)))))
, '2+$08+, . '(*!0(80*+J!M4 . !($%!% 'T(T%H!, '!('!, 'H . . $!, '2+$08+, . '(*!(8+, /, +J!('H!($%!2%K($(+%H!IJ!(+!
*%(2+!d!0%%+!0$.&!+4%!'%($%2+!K%$2.'!($%!%R%&K+!0$.&!M%($,'T!&(2-2!,0!+4%J!2.!84...2%5!
!U0!J.O!0%*!,**!('H!+4,'-!J.O!&,T4+!4(/%!ABcU60"D3!.0!J.O!4(/%!+%2+%H!K.2.+,/%!0.$!ABcU60"D3!
.$!,0!J.O!($\%!O'/(88,'(+\%H!.\$!K(\$+,(\**J!/(88,'(+\%H!('H!4(/\%!I\%\'!,'!8\*.2\%!8.'+(8\*!M,\$+4!2.\&\%.'\%!
M4.!4(2!ABcU60"D3!J.0!24.0*H!2+(J!4.&%!('H!0.**.M!+4%!00$+4%$!T0,H('8%!.0!+4%!)0I*,8!g%(*+4!
B00,8%!k8.'+(8++$(8,'TN8.*.$(H.5%HO15!U0!J.0!($\%!00**J!/(88,'(+\%H!('H!4(/\%!I\%'!,'!8*.2\%!8.'+(8+!
M,+4!2.&%.'%!M4.!4(2!ABcU60"D3!J.O!H.!'.+!'%H!+.!2+(J!4.&%p!$(+4\%3!J.O!24.O\text{H!2\%00})
&.',+.$!0.$!2J&K+.&2!('H!0.**.M!+4%!00$+4%$!T0,H('8%!.0!+4%!)0I*,8!g%(*+4!
B00.8%!k8. '+(8++$(8. 'TN8.*.$(H.5%H015!
; <<& ' '&=#2-&1(3&%(7-$#>-"-2-*$(
***+*\$!0$.&!6,2(I,*,+J!7\$/,8\2!+.!J.0\$!0(80\*+J!\&\&I\\$!,'!(!+,\&\*J!\&(''\\$!2.!+4(+!J.0\$!'\\$H2!8('!
```

F!

!

?%*3*%%*=(@20=*12(A#'*\$(#1=(?%&1&01\$(

A]!^.O*H%\$!\$%8.T',m%2!+4(+!2+OH%'+2f!*%T(*!,'Q.\$&(+,.'!H.%2'f+!(*M(J2!(*,T'!M,+4!4.M!+4%J!,H%'+,QJ5!7+OH%'+2!&(J!OKH(+%!+4%,\$!K\$%Q%\$\$\H!'(&\%2!('H!K\$.'.O'2!/,(!+4\%!2+OH\%'+!K.\$+(*p!+4.2\%!K\%Q\%\\$\\H!'(&\%2!('H!K\\$.'.O'2!(\\$\\!*,2+\\\H!.'!,'2+\\$O8+.\\$2f!8*(22!\\$.2+\%\\$25!\U'!+4\%!(I2\%'8\%!.Q!2O84!OKH(+\%23!+4\%!'(&\%!+4(\\$\!KK\)(\\$2!.'!+4\\!8*(22!\\$.2+\%\\$!,2!+4\%!2+OH\%'+f2!\%T(\\$\!'(&\%5!)

B&1&%(!&=*(

@*C0#"(D-\$<&1=0<2E(7-\$<%-'-1#2-&1E(B#%#\$\$'*12(#1=F&%(.*"#2*=(.*2#"-#2-&1(

! d!

7%%!+4%!<u>8(&KO2!K.*,8J!\$%T(\$H,'T!\$%*,T,.O2!.I2%\$/('8%2</u>!Q.\$!QO**!H%+(,*25!!

!

W!