```
&' ()% +!\=G9<\D!\M51'6$1#!2&*5$!%)%1. -6-!6)!( 51'61#J#1!-'&5/'5&%1!#T5%'6*)!( *3#1!%/&*--!1#J#1;9!2&*5$-D!
 = %%'"#0'#&. *@.; #"'(0#$*K. /. #01; L!JUL!`GG;`9<0!3*67!9G09G@GaGG=: `9: 90=G9>09GG`: 8?!
&' ()\(\mathrice{4} +!\=G9<\\mathrice{1}\mu\0'#\\&*1\#!*+!/#)\"#\(\beta\) 2!+*\(\alpha\)' (6*)!*+!1\#J\#1;9!J\(\alpha\)\(\beta\)\(\beta\)' (51'\(\overline{6}\) J\#\J\#1!-'\(\alpha\)' (58\\\overline{6}\)! (51'\(\overline{6}\) J\#\J\#1!-'\(\alpha\)' (58\\\overline{6}\)! (51'\(\overline{6}\)' (51'\(\overline{6
 ( *3#1-D!!?&0%1&%0#$*! 2%#&'()*= (-.$*)3L!BBL!89: ;8`GD!3*67!9GD9G@Ga9G: G<<99D=G9>D?`8>?9!
P)%$$L!PDL!&' ()%+)!D!Y#&&L!ZD!\=G9<]D!WO#!5$-63#!'*!O**X6)2!5$7!B*11#2#!-'53#)'-U!$*-6'6J#!O**X5$!#V$#&&#)/#-D!
0)&.0)#&'()#$*C(%0)#$*(+*?.V%#$*S.#$&;L!BPL!>`;<8D!3*67!9GD9G@Ga9?`9:899D=G9>D?`?=>:!
&' ()\(\dagger +!\=G9>\\D!\k%/'*&6\(\dagger !)\(J\dagger \dagger \dagg
#)-*?&#&'/&'1#$*L/91; ($(39L!RPW9:=;9?>D!3*67!9GD9999aF(-$D9=G9>!!
&' ()% +!\=G9>]D!M*3#1!+6'!#J%15%'6*)!6)!( 51'61#J#1!-'&5/'5&%1!#T5%'6*)!( *3#1-D!H0()&'. 0/*')*L/91; ($(394*
Q\% ) & '&#&'''. *L/91; ($(39*#) - *= . #/\%0. , . ) & L! < D!3 *6!9GD``@?a+$-. 2D=G9 > DGGG@9!!
P)%$$L!PDL!o#)'*L!fDL!&' ()% +L!b!f*-#)L!YD!\=G9>]D!SO.!3*!'O#.!0**X!5$n!I'''%/O(#)'!-'.1#!%)3!(*'6J#-!*+!
/*11#2#!-'53#)'-D!L. 0/()#$*K. $#&'()/; '7/L!BAL!>8@;>@9D!3*67!9GD9999a$#&#D9=G>`!!
&' ()\(\dagge 4!\)S#-'\(!\text{PD!}\(\text{RD!}\)P*5-\(\dagge 1!\)Y\(\Delta\)!\(\dagge 1)!'\(\dagge -1)!'\)6-'\(\dagge 1)\(\dagge 256-\text{O6}\)2!\(\text{F}'\)H##\);\(\dagge 4.-\)\(\dagge 1)\(\dagge 1.-\)\(\dagge 1.-\)\(\dagg
1*) 26'536) %1!0#%1'0!&#-#%&/07!1 &'0&6'6-!%) 3!T5%16'.!*+!16+#D!<)) #$/*(+*@.; #'''(0#$*=.-'1'). L!FEL!``G;`>=D!3*67!
9GI9GG: a-9=98G;G99;?`>9;8!!
P)%$$L!PDL!K#)-1#.;BO*%'#L!oDL!b!&' ()% +!\=G9=1D!1 !F*3.!6( %2#!&#-616#)/#!( *3#1!+*&!+6&-';.#%&!/*11#2#!H*(#)D!
?. V*K ($. /L!RPL!=99;==90 3*67!9G09GG: a-999??;G9=;G98`;9!!
R#&-'#6)L!CDL!, #3#&-#)!. !I &F*)%L!I DL!B&)6/L!YD!I DL!&' ()% +L!A%X#&L!AD!ODL!D!A1%/O#&L!ZD!\=G99]D!'' #J#1*$ ( #) '%1!&6-X!
%) 3!. *5) 2!/0613&#) U-!&#251%' *&.!-'&%' #26#-7!, &#36/'6) 2!F#0%J6*&!$&*F1#( -!%'!%2#!+6J#D!C(%0) #$*(+*<8) (0, #$*>; '$-*
L/91; ($(39L!ENL!`<9;`8>D!3*67!9GD9GG: a-9G@G=;G9G;?>: 9;<!!
&' ()% +!\=G99]D!C++#/'-!*+!-X#H)#--!%)3!X5&'*-6-!*)!)*&( %1;'O#*&.!F%-#3!( %V6( 5 ( !16X#16O**3!'#-'!-'%'6-'6/!6)!
 (51'61'41'+1''-1''55')
G99;G99<;:!!
\#\&-*)\%6'. \&\#-1(-!*-1(=)1(\&OD.?TT6ITf[(L!)-1(`)1(9)cmBT4200422238.882652Tm/TT2IT44Tm/TT6QqO.24000.24E)
```

```
 P*5-\&l!YD!KDl!YH*XL!dDl!\&' ()\% +l!b!B**XL!PD!SD!\=GG@]D!!B*) +\&& (\%'6*)!*+!'O\#!J\%1636'.!*+!'O\#!KIN;''_!6)!'H*! \\ **$51\%'6*) -!16J6) 2!H6'O!/O&*) 6/!611) \#--\#-D!C(\%0) \#$^*(+^*D\%0/') 3*=. #/\%0.,..) \&l!ARL!`9;>=D!3*67!9GD9@?9a9G89; \\ :>?D98D9D`9!! \\ ! \\ P*5-\&l!YD!KDl!\&' ()\% +l!YH*XL!dDl!B**XL!PD!SDl!b!S#-'L!PD!RD!\=GG: ]D!'' #J#1*$ (#)'!*+!\%! (*3#1!'*! (#\%-5\&#!-. ($'*(!-'\%'5-!6)!$#\&-*) -!16J6) 2!H6'O!&O#5 (\%'*63!\&'O&6'6-D!D\%0/') 3*K. /. #01; L!JRL!>`>;>>GD!3*67!}
```

```
!
82&>5=2*
```

```
! . A6$DHCBE$I JEA#D!4\%'6*)\%!_) -'6'5'#!*+!M#)'%1!K#%1'OD!, &*g#/'!'6'1#7!@0#')*). &Y(0I/*70. -'1&')3*''#0'#8'$'89'')* . 7'/(-'1*, ..., (09*2\%#$'890!, _7!M%5&##)!f6'/O#. D!G@aG9a=G==;G<a^9a=G=8D! ! 5EJE$BE$FJK%FADB(KEJDED!4\%'6*)\%!_) -'6'5'#!*+!4\#5\&*1*26\%!!"6-*&3\#\&-!%)3!P'\&*X\#! \land 4\_4"P]D!, &*g#/'!'6'1#7!0, 70(''')3*
```

```
L/91; ($(39h*>(, , %)'1#&'()/*')*?&#&'/&'1/b*>(, 7%&#&'()#$*?&#&'/&'1/*#)-*X#&#*<)#$9/'/b*>%$&%0#$*X'''.0/'&0*#)-*
! &; ) '1*= ') (0'&9*L/91; ($(39b*X. ".$(7, .) &#$*L/91; ($(39b*! -%1#&'()#$*#) -*L/91; ($(3'1#$*= . #/%0., .) &b*H0()&'. 0/*
')*L/91; ($(394°Q%#)&'&#&'''. *L/91; ($(39*#) -*= . #/%0. , . )&b*C(%0)#$*(+*<8)(0, #$*L/91; ($(39b*C(%0)#$*(+*
>(%)/.$')3*L/91; ($(39b*C(%0)#$*(+*>()/%&')3*#)-*>$')'1#$*L/91; ($(39b*C(%0)#$*(+*!#0$9*<-($./1.)1.b*C(%0)#$*(+*
L. 0/() #$'&9b*C(%0) #$" (+*?1; (($`L/91; ($(39b*5. #0)') 3*#) -*0) - '''' - #$*X'++. 0. ) 1. /b*= . &; (-($(39b*= %$&'''#0'#&.*
@.;#"'(0#$*K./.#01;b*L0.".)&'()*?1'.)1.b*L/91; ($(3'1#$*<//.//,.)&b*L/91; ($(3'1#$*=.&; (-/u!L/91; (,..&0'1#b*
?(1'(\$(3'1\#\$^*=.\&:(-/^*\#)-^*K./.\#01:b^*?\&0\%1\&\%0\#\$^*!2\%\#\&'()^*=(-.\$')3^*)
   !*/&04!30/:\%3, \% 317!\&510;\% 244100!!5\%
1305)/!+\%/51'.!-\#\%/0!/*((6''##!=GG?]!
k\%/51' \cdot !+#11*H-06$!\%) 3!\%H%3!)*(6)%'6) 2!/*((6''##!\=G9: ;=G9@]!
k%/51'.!'#/0) *1*2.!/*) '%/'!\=GG?;=G98]!
k51F&620'!-/0*1%&-06$!$&*2&%( !6)'#&J6#H#&!\=GG?u!=G9Gu!=G9`]!
k5'5\% = G=G!
R*\%1-!/*((6''##!)=GG@;=G9G]!
R\&\%35\%'\#!\%3(6--6^*)!\%)3!\&\#/\&56'(\#)'!/*((6''\#\#!=GG?;99u!=G9>;=G=^]!
R8\%35\%'\#!\#J\%15\%'6*)!/*((6''\#\#!=G9G;=G99u!=G9`;=G9<]!
R\&\%35\%'\#!\$\&^2\&\%(!/^*((6''\#\#!)=G9G;=G99u!=G9=;=G9>u!=G9@;=G=^]!
N5\%)'6'%'6U#!%) 3!B* ( $5'%'6*)%1!B*)/#)'8%'6*)!/* ( (6''##!\=G9@;=G=`]!
N5%)'6'%'6J#!%)3!B*($5'%'6*)%!!k%/51'.!P#%&/O!/*((6''##!\BO%&L!=G9?]!
N5\%)'6'%'6J#!-#%&/O!/*( (6''##!\/*;/O%&]!\=G9Gu!=G99]!
P'''' - GG@ = G - u!BO\% = GG@ = GG - U!BO\% = GG - U!B
W\#/O) *1*26/%1!%) 3! ( \#'O*3*1*26/\%1!'8\%)6) 2!/* ( (6''##!\=G9: ;=G=`]!
W#) 5 \& #! \& # \$ * \& '! / * ( (6'' # #! = G9: ]!
```

S#1/*(6)2!/*((6''##!+*&!+%/51'.!)=GG?;=G9G]!