```
"#$%&' ($)*!+$(($, #!()-)&+&#)!
5"6/"42%7"(3$*3\%84\$9:;*\$36\% <\$*3*\%8. \% 2), "3: \%3) 2: 43*\%4\%'4\%', "2: '\$, "//6\% - "//: 4=\$4=\%: ";4\$4=?
0., )*: 2\%'42\%2^*3\$4, 3\$9: /6\%2-; **3\$''4\% 49\$; .4': 43\%0. ; %( ; .0: **$. 4''/\%'), , : **>\\$0: /. 4=\\$: ''; 4\$4=\\$' 42\
*: ;9$,: %. %@. 2%'42%-)' "4A$42B%
., "'(&!#"+/&'!O!#-+&1!!
1C8&%DEDE%F%I GHI>%J: ":4$4=%2. %J: "2%
)&' +1!!
K"//%L>%LHLM%IIM%O,3.P:;%LHLM%F%IM%C:,:'P:;%LHLM0%
$#()'".), '1!!
C;B%R/P: ;3. %S.;"/: *>#T;B%
(1, 4) - (1) \% 2 (1 + 1) \% 41!
U-. 4: VMWHW0%EXL?HMYX%
578%1' "$/\%'/P: ;3. B' . ;"/: *Z#"6/"42B#P)B: 2)%
, 22$. &!3, "'(4!/"$56$#7!0!5, . -)$, #1!!
[#.%-.);*%P:0.;:%/"**%"42% 4:%-.);%"03:;%/"**%;%' "$/%0.;%"4%"((.$43':43%"3%-:%\"(./:$%
&"' ()*]R' :;$,"4\%"" ."%
., "" (&! + &&)$#7!)$ + &!O!5, .-)$, #1!
R':;$,"4%""."%0;.'%NVEH('%F%VVHH('%NR+[0%
. -) -5, 7!6&(. '$8)$, #1!!
```

```
!
' &9"$' &6!)&: )/, , ; !-#6!' &(, "' . &!+-)&'$-51!
```

```
()-)&+&\#)!, \#!85-7$-'$(+!0!-.-6&+$.!6$(3, <math>\#&()*1!
5"6/"42%7"(3$*3%84$9:;*$36% P*:;9:*%'%:;.%./:;"4,:%(./$,6%:=";2$4=%',"2:' $,%2$*-.4:*368\U:;%
) 4$9: ;*$36%(. /$, 6%'*%2: *, ;$P: 2%4%-: %', "2: ' $, % "3"/. =>%'//% "*: *% 0%', "2: ' $, %2$*-. 4: *36%#$//\P: %
;: (.;3:2%'42%':,.42% 00:4*:*\\frac{**}{3}\/\%:*)/3\\frac{*4*}{3}\/\%:*) /3\\frac{*4*}{3}\/\%:*) /3\\frac{*4*}{3}\/\%:*)
6(-/5)^*!()-)&+&#)1!
64%.' (/$"4,: \#\$3-\%-: \R\'::\$, "4*\#\$3-\%C\$*"P\$3\$: *\\R, 3\% 0\% bbH\\\RCR0\\\3\\$'\%-:\\(.\\$, 6\% 0\%5\''6\''42\%
7"(3$*3%84$9:;*$36%-"3%4.%3-:;#$*:%d)"/$0$:2%:;*.4\#$3-\%2$*"P$\$36\P:\%<,/)2:2\%;.'%
(";3$,$("3$. 4%4>%P: %2: 4$: 2%-: %P: 4: 0$3*% 0>%; %P: %) P_:,3%. %2$*,;$' $4"3$. 4%) 42:;%'46%
: 2), ''3$. 4''/%(;.=;''' %;%', 3$9$36$4%-: %) 4$9:;*$36B%[-: &&..;2$4''3.;% 0%&.) 4*:/$4=\tilde{\psi}: '9$,:*\tilde{\psi}: '9: *\tilde{\psi}: '9: *\tilde{\psi}: '10: 
"*%-: % . . ; 2$4"3. ; % 0%3) 2: 43*%#$3-%"%2$*"P$\$36\"42\"-. )/2\P: % . 43", 3: 2\" . 4, : ; 4\$4=\"
",,.''.2"3$.4%:d):*3*%'3%WHY0%LbI?EXYDb%C.,)':43"3$.4%.0%'%2$*"P$/$36%')*3%',,.' ("46%
"46%:d): *3%0.;%',,.' '.2"3$.4*B%
., "'(8!' \& 9" \$' \& + \& \#)(!=H>!7'-6\$\#7!.'\$)\&'\$-1!
2: ' . 4*3; "3$4=%: * (:, 3%. #"; 2% ", -% 3-:; %*%9$3"/%. %;: "3$4=%$, -\2\$*, ) **$. 4*%-"3\2; "#\0;. ' %
:: *: ":, -%'42%2"3"%. %):3-::%):%A4. #/: 2=: %4%-$*%$: /2B%5: %#$//%-. #%: *(:.3%).:% 4: %'4.3-::%
P6% <-$P$3$4=% $9$\$36%4\% );\% <, -"4=: *B\%4\%-:\% 2), "3$. 4\%5: \/2\% . ' ' ) 4$, "3$4=\%2: "*\% . \%
,.//:"=):*>%(";:43*%'42%'2' $4$*3;"3.;*%#$3-%/:";%'42%;;.;?0;::%14=/$*-%*%'%(;$.;$36B%q.);%
"P$\$36\%. \% <(;: **\%.);\%4. \#/: 2=: \% 0\% 2), "3\$. 4"/\%. 4,: (3*\%'42\%-:.;\$: *\#\$3-\$4\%-:\%. 49: 43\$. 4*\%
. 0%', ''2: '$, %2$*,...);*: %#$//%P: %'**: **: 2%-;...)=-%(;: *: 43"3$. 4*%'42%#;$33: 4%''*$=4' : 43*B%
643: =;"3$. 4% 0%40.;" "3$. 4%;." %:,3);:*>%:"2$4=*>%'42%2$*,)**$. 4*\#$/\P:%"A: 4\$43. %
,. 4*$2:;''3$. 4%'*%#$//%.;;:,3%'42%'((;.(;$''3:%0.;' ''3%'42%.4*3;),3$. 4B%
&=FA!I <<J1%64% /''**>%3) 2: 43*%(":35,$("3: %4%(::*: 43"3$, 4*%'42% 3-::%''**$=4' : 43*]", 3$9$3$: *B%
O4/$4: \%3) 2: 43*\%(";3\,\$("3: \$4\%3) 2: 43?/: 2\%2\$*,) **\$. 4\P. ";2\%', 3\$9\$3\$: *\% -:, A\\#:: A\\6\%
'''**$=4' : 43*%''42%);4%4%#.;AB%{-:%,-:2)/:%P:/.#%42$,''3:*%-:%:''2$4=%,-:2)/:%''42%
4. 3: #.;3-6%'**$=4':43*%-"3%';:%2):B%a. 3: V%6: <3P. . A%;:"2$4=*%')*3%P:%,.'(/:3:2%P:0.;:%-:%
,/''**%. % 4,.);"=: %2$*,)**$. 4%'42%(";3$,$("3$. 4B%
7?=>BHK!.?BG<?B=1!
                                                                                                                                 8D@&MN<!8D&HG@!
                                                                    - FGBL BGF!
```

&/"\*\*%U";3\$,\$("3\$. 4%)

```
7?=>BHK!(F=N<1!
-İ
      MDH?DHH%(. $43*%II HH?bH0%
                                         EHH?EMb%(. $43*%)Yb?YH0%
                                  6!
      MHH?MMb%(. $43*%Wb?WH0%
/!
                                  2!
                                          7:/.#%EHH%(.$43*%\7:/.#%/H0%%
.!
       EDH?Ebb%(.$43*%)Xb?XH0%
ij.
             G4,.' (/: 3: %
      $!
             R((;.9:2%5$3-2;"#"/%
       Q!!!
       Q8! R((;.9:2%5\$3-2;"\#"/\%
       Q2!
              5$3-2;"#"/%K"$/$4=%
      %
```

 $7? = > <!-CC < = N! (G = G < R < HGV\%e + 3) 2 : 43*\% - "//\% "9 : \%(; . 3 : , 3 \% . 4\% - ; . ) = -\% ; 2 : ; /6\%(; . , : 2) ; : *\%' = "\$4*3\% (; : _) 2 \%, : *\% ; % " (; \$, \$. ) *\%', "2 : ' $, % 9"/) "3 \% . 48\%R\%3) 2 : 43\\ - . \P : /$: 9 : *\% - "3\\ - : \% ; \%' - : \% - "*\% . 3\\ P : : 4\\ - : /2\% . \% : "/$*3\%, \%', "2 : ' $, \%3"42"; 2*\\\ _) *3\% 9"/) "3 \% . 4\\((; . , : 2) ; : *\% ; \%' ((; . (; \%'3 : \% - ; \%'2\)4 = \%$ 

Q< <j\$6=g<!< th=""><th>) DCBF!-FGBLBGB&lt;@!O!6B@FT@@BDH@!</th><th>' &lt;=&gt;BHK@!O!-@&amp;KHR<hg@! &gt;T<!--GA<!UDMD1</th--></hg@! </th></j\$6=g<!<>	) DCBF!-FGBLBGB<@!O!6B@FT@@BDH@!	' <=>BHK@!O!-@&KHR <hg@! &gt;T<!--GA<!UDMD1</th--></hg@! 
5::A%% M%a.9:'P:;%	U;: *: 43"3\$. 4*%^%C\$*,) **\$. 4V% &-"(3: ;*%X?W% U. *3% 4%7/", AP. ";2%'4%R;3\$,/: % 4% eU. #: ;%'42%R)3;\$36f%	j:"2\%-"(3:;*\%)?IH% U.*3\% 4\%7/", AP. ";2\%'4\%R;3\\$,/:\% 4\% eR,,.)43"\P\\\$36\%4\%!:"2:;*-\\$(f\% &.' (/:3:\%L\%3";*\%\%'\\\\$5.42:;\%
5::A%D% V#D!. N=@W! II%a.9:'P:;% h:3:;"4*%C"6%	U;: *: 43"3\$. 4*%^%C\$*,) **\$. 4V% &-"(3: ;*%o?I H% U. *3% 4%7/", AP. ";2%'4%R;3\$,/: % 4% eR,,.) 43"P\$/\$36%4%!: "2: ;*-\$(f%	j:"2V%-"(3:;*%I1?IL% U.*3% 4%7/",AP.";2%'4%R;3\$,/:% 4% eC\$9:;**\$36%'42%J:"2:;*-\$(f% &.' (/:3:%L%3";*%^%'%5.42:;%%
5::A%% IW%a.9:'P:;% %	U;: *: 43"3\$. 4*% %C\$*,) **\$. 4V% &-"(3:;*%I?IL% U. *3% 4%7/", AP. ";2%'4%R;3\$,/: % 4% eC\$9:;*\$36%'42%!: "2:;*-\$(f%	j:"2V%&-"(3:;*%IE?IM% U.*3% 4%7/",AP.";2%'4%R;3\$,/:% 4% eK.//.#:;*-\$(f% &.' (/:3:%L%3";*%^%'%5.42:;%
! "#\$%%' '#(#) * & + , ' / . + - #012& , #34536#! " /27821#		
5::A%% L%C:,:'P:;%	U;: *: 43"3\$. 4*%^\c\$*,)**\$. 4V\\ &-''(3: ;*\\] E?I M\\ U. *3\\ 4\\7/\'', AP. '';2\\''4\\R;3\\$,/:\\ 4\\\ eK. //. #: ;*-\\$(f\\'	j:"2V%-"(3:;%ID?IY% U.*3% 4%7/",AP.";2%'4%R;3\$,/:% 4% e13-\$,"/%J:"2:;*-\$(f% &.' (/:3:%L%3";*%^%'%5.42:;% j:*:";,-%[.(\$,%U;:*:43"3\$.4%
5::A%W% b%C:,:'P:;%	U;: *: 43"3\$. 4*%^%C\$*,) **\$. 4V% &-"(3: ;*%I D?I Y% U. *3% 4%7/", AP. ";2%'4%R;3\$,/: % 4% e13-\$, "/%J: "2: ;*-\$(f% J: "2: ;*-\$(%U. ;30. /\$. %U;: *: 43"3\$. 4%	! ! <u>8D?GUDM6D!&gt;T<!--#5)!X!6<F<RM<?!YPYY</u-->%</u>

-66\$)\$, #-5!\$#2, '+-)\$, #!

/N=FJMD=?>!-?GBFN<!6B@FT@@BDH!=H>!\$HG<?=FGBDH@!!

G4?&/''\*\*%G43:;'',3\$. 4\*V%G4?,/''\*\*% ::3\$4=%',-:2)/:%\*%(.\*3:2%4%7/'',AP. '';2B%+3)2:43\*%';:%<(:,3:2%3.%('';3\$,\$(''3:%4%\$9:/6%2\$\*,)\*\*\$. 4%'42%,/''\*\*;...' %',3\$9\$3\$:\*B%+3)2:43\*% ''4% '';4%)(%. %H%(.\$43\*%(:;%#::A%).;%,/''\*\*%('';3\$,\$(''3\$.4B%)

• [#. %+3"; \*V%(;. 9\$2: %(. \*\$3\$9: %,.' ': 43\*%).; %#. %0: "3);: \*% 0%-: %'; 3\$,/: %-"3%6.)% "((;:,\$"3:%

• 5.42:; \\%'\%d): \(^\*3\)\$. 4\\%') ==: \(^\*3\)\$. 4\\%; \(^\*\): \(^\*\): 43\\%.\)\%-\(^\*\)9: \(^\*\): =\(^\*\); 2\\$4=\%-: \(^\*\); 3\\$, \(/:\) B\%

7/", AP. ";2%C\$\*,)\*\*\$. 4½: "2:;½ : \*(. 4\*\$P\$/\$3\$: \*V%5:: A/6-%\*3) 2: 43\*%"A:%); 4\*\#:: A/6%:;9\$4=\%'\*% 3-:\%C\$\*,)\*\*\$. 4½: "2:;\%(;. 9\$2:\*\%-:\%/''\*\*\%\$4A\%.\%-:\%';3\$,/:\% 0\%-:\\#:: A\% "42\%(.\*:\*\%'\%d):\*3\$. 4-\%:0/:,3\$. 4-\%;\%-.)=-3\%:=";2\$4=\%-:\%';3\$,/:\%0.;\%.\/!:"=):\*\%.\%.\': ': 43\% 4B\% R\*\%-:\\%C\$\*,)\*\*\$. 4½: "2:;\%6.)\\#\\$/\%'',\\$\\$3"3\$. 4-\\#\\$3-\%3-:;\\%3) 2: 43\*\%\*\\#.;3-\\DBH\\(.\\$43\*\%'',-\\M4::2\\%0.)\);0\\%

7/", AP. ";2%C\$\*,)\*\*\$. 4%&. //: "=): %j: \*(. 4\*\$P\$/\$3\$: \*V%+3)2: 43\*%#\$//%(";3\$,\$("3: %4%2\$"/. =): %#\$3-%
,. //: "=): \*%P\$"%7/", AP. ";28%j: "2>%'4"/6`: %'42%..' ': 43%P"\*: 2% 4%-: %d): \*3\$. 4%(. \*: 2%);..' %-: %

C\$\*,)\*\*\$. 4%: "2:;8%j: \*(. 42%. %#. %IL0% 3-:;%3)2: 43\*8%U;. 9\$2: %-: %';3\$,/: %\$4A%..;%6.);%

## , GA<?!\$RCD?G=HG!\$HUD?R=GBDH1!

- IB &/"\*\*%(";3\$,\$("3\$.4%\*%'%9:;6%' (.;3"43%(";3% 0% 2),"3\$.4B%([-\$\*%/"\*\*%:d)\$;:\*%',3\$9:%/"\*\*% (";3\$,\$("3\$.4B%
- LB R\*\*\$=4':43\*%';:%2):%4%-:%2:"2/\$4:\*%=\$9:48%
- EB J"3: %"\*\*\$=4" : 43\*%#\$//%4.3%P: %", , : (3:28%

DB